BEEHiVES

CONTEXT OF COLLABORATION IN HIGHER VET IN EUROPE

National cases from England, Flanders, Czechia, Denmark, Germany and the Basque Country

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GENERAL INTRODUCTION

To be economically competitive in an ever more science-based global economy and to be responsive to changes in the national labour market, tertiary education is getting more and more important. The European benchmarks for 'Education and Training 2020' calls for at least 40% of all 30- to 34-year-olds to hold tertiary-level certificates (Powell and Solga, 2011a: 50).

Subject for almost all professional fields and skill levels is the ongoing trend of increasing qualifications and competency requirements (Berthold et al., 2009: 5). A German study states that around 25 percent of companies separated from their employees during their probationary period due to a poor implementation of their expertise in the corporate practice (Heidenreich, 2011: 2). A key part of the 2011 EU Modernization Agenda for Higher Education is a reform of higher education to better meet the requirements of the labour market with emphasis on relevant skills, qualification and graduates employability.

Internationalization and Europeanisation processes demand responses from all institutions involved in skill formation. The provision of general, abstract and occupational, tacit skills must shape vocational, tertiary and continuing education (Powell and Solga, 2011a: 51). More efforts are organized through learning on-the-job and self-directed learning. Nevertheless those learning structures are getting more and more complex. Technical knowledge is seen as a prerequisite after graduation from professional studies (Heidenreich, 2011: 2). Others like softer skills, new values, new codes of behaviour are getting more important, as social and cultural issues are not separable from economic, demographic and immigration issues facing all Member States (Béduwé et al., 2009: 28).

Graduate employability encompasses so many factors, that no clear trail for higher employability rates can be guaranteed. Dimensions of employability (Dunkel et al., 2009: 243):

1. The search process for placement and the access to a workplace.

2. The match between individual competences and the workplace requirements.

3. The adaptation between individual competences and the future workplace requirements.

4. The duty of firms or civil society to secure access to workplace for specific learner groups.

5. The ability of single persons to be flexible.

6. The development of individual attributes such as self-promotion and career management skills and the willingness to learn and reflect on learning.

The institutional divide between VET and HE is being increasingly challenged by recent developments at the global and European levels (Graf, 2013: 14). Meanwhile the EU Member States are engaged in developing links, and it appears that HE and VET systems are coming closer to one another. There is a diversity of concepts and structures in HE, resulting in academically or vocationally orientated HE, as well as different traditions and forms of VET (Dunkel et al., 2009: 243). BEEHiVES works at those boundaries between HE, PHE and HVET to focus on (1) the 'confused policy area' in many member countries – with HVET offered in several structurally separate sectors (HE, PHE, VET, CVET) with limited permeability and progression (2) on not yet existing HVET-focussed country reports, including an emphasis on employer engagement and (3) the limited attempts to identify innovative employer engagement in HVET and PHE practice which has the potential for transferability. (4), its owing to its nature it often falls between the HE and VET policy arenas – although its learning outcomes are clearly HE. Thus the project focuses on their own working definition of HVET, that is "a study programme (EQF level 5 and higher) that includes periods of work experience, work based assessment, transferable occupational skills, and significant employer involvement offered in any institution or sector".

Policy development in education and training offers particular challenges because of the wide range of different stakeholders involved. Alongside the students, teachers and parents that play a role in all education systems, labour market actors such as employers and unions are also critically important. Nationally and regionally the involvement of the social partners helps to ensure that the overall design of the system, the content of programmes, and the mix of training provision meet labour market needs (Field and Fazekas, 2013: 29).

GENERAL INTRODUCTION

To meet these requirements, the European Education Area was propagated and restructured by two educational policy-driven processes - Bologna (already in 1999) wand Copenhagen Process (in 2002) (Ratermann and Mill, 2015: 96). But only very few studies look at Bologna and Copenhagen in combination (but see, e.g., Balzer and Rusconi, 2007; Powell, Bernhard, and Graf, 2012a). (Graf, 2013: 18) no studies exist on the latter (i.e., the unintended impact of the Copenhagen process on HE) (Graf, 2013: 18).

Bologna-inspired changes in Higher Education have begun to impact VET systems (Powell and Solga, 2011b: 53). The development of hybrid organizations and pathways, such as dual studies, is one response (Powell and Solga, 2011b: 63). The Copenhagen Process has, e.g. in Germany, so far no influence on the development and implementation of dual study courses, especially when focusing on the coordination of learning contents and places of learning. The formulated qualification requirements of VET should be considered in the training, but no restructuring of the dual VE training with e.g. European diplomas is made. The constellation of actors at the meso-level of dual study programmes must not yet be changed due to the Copenhagen Process (Ratermann and Mill, 2015: 96–97). Both Processes have a qualification framework as well as a credit point system: the European Credit Transfer and Accumulation System (ECTS) for HE and the European Credit System for Vocational Education and Training for VET. The importance of workplace learning is repeatedly underlined in the Copenhagen Process (Powell et al., 2012: 447). Only if theory and practice are combined while studying, the Bologna goal of employability can be achieved (Heidenreich, 2011: 4).

The required focus on employability and professional qualification in study programmes fits with the basic idea of dual study programmes – to dovetail as closely as possible theory and practice. The strongest link between theoretical knowledge and practical experience can be gained through training-integrated study courses (Ratermann and Mill, 2015: 101).

Countries within Europe differ significantly in their HE and VET institutions and organisations and in participation and attainment rates at various levels. The VET systems have not yet been structurally adjusted towards a European VET area with the same qualifications (Ratermann and Mill, 2015: 98). In HE a single university model no longer exists but rather

a complex set of private institutions and public ones. Public universities are in transition from the academic republic to managerial university and struggling with issues of marketization and commercialisation. Also, a broad range of VET providers varies from full-time schools to dual system and work-based providers, which finally leads to a diversity of institutions in both HE and VET. This diversity is also characterised by competition for human (best students and teachers) and financial resources (public funds can be spent either for continuing education or R&D activities) (Dunkel et al., 2009: 262). Cedefop (2014: 112) sees the EQF Level 5 qualifications as a possible interaction (vertically and horizontally) between HE institutions and VE training institutions. This underlines the possible added value of VET at all qualification levels.

CHAPTER 1

CONTEXT OF COLLABORATION IN HVET IN ENGLAND

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1.1. HIGHER VOCATIONAL EDUCATION AND PROFESSIONAL HIGHER EDUCATION IN ENGLAND

This chapter presents a brief summary of the historical as well as more recent policy developments relating to Higher Vocational Education (HVE) and Professional Higher Education (PHE) in England. These chapters (and the report) do not attempt to offer a definition of HVE and PHE. The BEEHIVES project apply a working definition of HVE and PHE informed by a project discussion note (available at https://beehives.de/#top), and it is hoped to develop it further during the life course of the project. It may be noted that until recently, the term HVE was not used in policy or research literature in England, although what is traditionally described as HVE has been taught by various providers for a considerably period of time.

1.1.1 BACKGROUND AND HISTORICAL CONTEXT

The English higher education (HE) system in the post-war era has developed through a series of plans, events and accidents. In its current state, it is dominated by a 'boarding school' model with three year full time degrees and an associated 'student experience' aimed at young people. The historical emphasis has been on increasing participation through full-time undergraduate degree provision with less discussion, until recently, on the effect this type of mass HE sector could have on widening access and participation, social mobility, progression for vocational learners, advanced skills formation and work-based and part-time provision.

Historically, professional higher education (PHE) for the 'traditional professions' – medicine, law, engineering – has been built around full time degrees and work/clinical experience accredited by the relevant professional body, based in England's older universities many formed in the late nineteenth century and in the early 1960s. Other PHE programmes, such as architecture and newer welfare professions such as nursing and social work, have been offered across all universities, including the ex-polytechnics.

In 1965, following the publication of the Robbins Report[1] two years earlier, a binary system of higher

education emerged in England based on universities, and polytechnics and larger colleges. This position quickly changed in the late 1980s and early 1990s as polytechnics and universities were encouraged by Government to significantly expand their provision using a margin bidding system, which led to a proportionate decrease in HE provision in Colleges. This led to a significant increase in enrolments in the ex-polytechnics halted in 1994 as the Government sought to control costs.

In 1992, the system was fundamentally reshaped as polytechnics were allowed to apply for university status, and two funding councils were introduced - the Higher Education Funding Council for England (HEFCE) and the Further Education Funding Council (FEFC) - creating a clearer division between the HE and further education (FE) sectors. The Further and Higher Education 1992 Act also introduced the concept of prescribed HE, Higher National Certificate/Diploma and degrees, funded by HEFCE and non-prescribed HE (explained in chapter 2), professional certificates and diplomas, funded by the FEFC.

These policies led to a two-sector tertiary system with the assumption that colleges would primarily concentrate on courses below degree level. Full time PHE was almost exclusively located in universities, and honours degree level higher vocational education mainly delivered in the 'post-92 universities and to some extent colleges.

However, this position was significantly qualified by the recommendations of the Dearing Report in 1998 that gave Colleges a significant role in the expansion of sub-degree or short cycle provision, including direct funding from HEFCE, aimed at developing higher technician skills and widening participation, and attracting more mature students[2]. The recommendation was accepted and the foundation degree (EQF level 5) – to be developed in conjunction with employers and including a named honours progression route – introduced in 2001.

[1] Cmnd. 2154 Committee on Higher Education (1963), *Higher education: report of the Committee appointed by the Prime Minister under the Chairmanship of Lord Robbins 1961-63, London HMSO*

[2] BIS (2012) Research Paper No 69 Understanding Higher Education in Further Education Colleges

They are loosely based on American associate degrees; and were intended to satisfy the need for intermediate knowledge and skills at the sub-degree level.

At the same time, HEFCE and the Office for Fair Access (OFFA) strengthened their requirements on universities and colleges to explain and justify their extra funding for attracting students from non-A level – the traditional general eligibility qualification for HE entry - and widening participation backgrounds. Thereby, increasing attention to offering HE opportunities for those with vocational routes for entry into HE.

1.1.2 RECENT POLICY DEVELOPMENTS

The concept of higher vocational education (HVE) is a relatively new concept in England's policy discourse - first discussed in a government document in 2011[3] and expanded in 2015[4]. This has been accompanied with an expansion of apprenticeships with an integrated HE qualification (in 2012) and degree apprenticeships with a full honours or Masters Degree (in 2015).

Following the Browne Review of HE funding[5] the Government published a HE White Paper[6] and a technical consultation[7] in 2011 setting out its proposals for fundamental changes to the financing and regulation of HE, as well its broader vision for HE.

Subsequent to this, the Government introduced reforms in 2012/13 to increase the cap on tuition fees [increased to £9,000 per year], reduce the block teaching grant for most humanities and social science courses and replace funding with a system of student loans, with repayment on an income contingent basis. The vision is underpinned by a philosophy of relying increasingly on competition between institutions, greater diversity of institutions and price, and an increased choice for students which, it is argued, will improve quality and lead to innovations in course development and more flexible delivery methods.

More recently, the government has set a target of 3 million apprenticeship starts by 2020, including significant numbers at the higher and degree level, and has established a working group to re-examine technical qualifications and non-prescribed HE at English qualification levels 4 and 5. According to England's Skills Minister: "compared to other countries, technical and professional education is still too complex, confusing

young people and failing to adequately deliver the employees of the future that business needs"[8]

England's HE system, including PHE and HVE, is presently in a state of flux with an HE Bill awaiting its second committee stage in Parliament in July or early September, the possibility of a Skills White Paper, the college sector undergoing significant rationalisation and tentative steps to create a more thoroughgoing technical education tertiary stream alongside traditional academic HE and PHE and apprenticeships; including greater permeability between the three streams.

The diagram describes the possible aspiration of a three-stream tertiary education system including HVE. However, significant policy work around student and provider funding, permeability and increasing the status of HVE will be necessary to achieve this aim; especially in light of the increased funding for universities over the past six years through increased tuition fee loans, and the proposed training levy on large organisations to be introduced in 2017 expected to raise £3 billion to support apprenticeships. Academic-based PHE is also changing with bursaries for nursing students now withdrawn and the introduction of degree apprenticeships a direct competitor to a university-based PHE experience. And last, England, in common with some other European countries, needs to bring into line the competing roles of HVE - improving widening participation; part of the re and up-skilling agenda; improving employer engagement – if it is to gain status and popularity.

[3] DBIS (2011) *New Challenges New Chances New Challenges, New Chances: Further Education and Skills System Reform Plan London HMSO*
[4] DBIS (2015) *A dual mandate for adult vocational education a consultation paper London HMSO*
[5] Browne Review (2010) Securing a sustainable future for higher education: an independent review of higher education funding and student finance, 2010
[6] Cm 8122 Department for Business, Innovation and Skills (BIS) Higher Education: Students at the Heart of the System, London, 2011a
[7] BIS Technical Consultation (2011) – A new, fit-for-purpose regulatory framework for the Higher Education sector
[8] BIS Statement on the setting up of a review of technical and professional education https://www.gov.uk/government/news/technical-and-professional-education-revolution-continues (accessed 03/05/16)
[9] Cedefop (2015) Spotlight on VET Anniversary Edition Vocational Education and Training systems in Europe http://www.cedefop.europa.eu/en/publications-and-resources/publications/4135 (accessed 03/04/16)

TERTIARY LEVEL

ADULT LEARNING/CONTINUING TRAINING
(outside the school system)

| CVET for employees | Courses for unemployed and other vulnerable groups | Training courses by private providers |

EQF 8
PhD programmes, duration varies
ISCED 844

EQF 7 — Master programmes, 2 years — ISCED 747
EQF 7 — Master programmes, 2 years — ISCED 747
EQF 7 — Master programmes, 2 years — ISCED 747

EQF 6-7
IT-Professional

EQF 6 — Bachelor programmes, 3-4 years — ISCED 645
EQF 6 — Bachelor programmes, 3-4 years — ISCED 645
EQF 6 — Bachelor programmes, 3-4 years — ISCED 645
EQF 6 — Bachelor programmes, 3-4 years — ISCED 645
EQF 6 — Technician, Fachwirt, etc. qualifications — ISCED 655
EQF 6 — *Meister*, technician, etc. qualifications examinations

19+ | 13+

Specialised programmes, 1-3 years
ISCED 444

POST-SECONDARY LEVEL

19 | 13 — General education programmes, 2-3 years — ISCED 344
18 | 12
17 | 11 — General educ. programmes with vocational orientation, 2-3 years — ISCED 344
16 | 10

EQF 2-4 — School-based VET programmes, 1-3 years — ISCED 354
EQF 1-2 — Transition progr., 1 year — ISCED 254

EQF 4 — Apprenticeship programmes, 2-3.5 years
EQF 2 — ISCED 354

16 | 10
15 | 9
14 | 8 — Lower secondary programmes, at Gymnasium, Realschule and Gesamtschule, 4 years — ISCED 244
13 | 7

Lower secondary programmes, at Hauptschule and Gesamtschule 3 years (4 years in one federal state) — ISCED 244

SECONDARY LEVEL

AGE | YEARS in E&T

Legend:
- General education programmes
- VET programmes
- Programmes combining VET and general education
- Also available to adults
- Officially recognised vocational qualifications
- Qualifications allowing access to the next educational level
- End of compulsory education
- Professional experience required to enter
- Giving access to higher education
- Access to HE is limited, only from/to some programmes
- Possible progression routes
- Prior education may be recognised affecting programme duration
- Access restricted to certain related subjects
- At universities of applied science
- At Fachschule/Fachakademie, duration varies
- At duale Hochschule
- At Berufsakademien

NB: This is a simplified chart, based on the unified approach used for the spotlights on VET in all EU-28 countries plus Iceland and Norway.
ISCED-P 2011. EQF levels have not yet been defined for all qualifications.

Spotlight on VET in Germany
Source: http://www.cedefop.europa.eu/en/publications-and-resources/publications/4135

1.2. SYSTEMS OF HVET/PHE IN ENGLAND

HVE and PHE courses are part of the wider HE provision in England. The systems for HVE and PHE are not separate from that of academic HE. HVE and PHE is delivered by educational providers that teach a wide range of courses including academic, vocational and professional HE courses and in case of FE colleges, at multiple levels. As noted earlier, an absence of the term HVE in the literature and policy terms implies that few attempts have been made to distinctively capture the title of qualifications that may be categorised as HVE/PHE and such an exercise is beyond the scope of this report. This chapter sheds light on HVE/PHE qualifications and its providers and outlines the funding and quality assurance systems that support such provision.

1.2.1 QUALIFICATIONS

Higher education In England refers to all provision at level 5 and above of the EQF and it includes 'prescribed' as well as 'non-prescribed HE. Prescribed HE courses are those that are recognised by the Higher Education Funding Council for England and these are courses of HE listed in schedule 6 of the 1988 Education Reform Act and as amended by the 1992 Further and Higher Education Act and subsequent statutory instruments. These courses include, where these are awarded by a recognised body:

- higher degree, including PhD, MPhil, MSc, MA, MBA
- postgraduate diploma
- postgraduate initial teacher training qualification, such as a Postgraduate or Professional Graduate Certificate in Education (PGCE)
- first degree, including foundation degree, BSc, BA, BEd
- foundation degree bridging course, where these are integrated into the final years of a first degree
- Higher National Diploma (HND)
- Diploma of HE (DipHE)
- Higher National Certificate (HNC)
- Certificate of Education (Cert Ed)
- 120 credit point Diploma in Education and Teaching (DET) [previously Diploma in Teaching in the Lifelong Learning Sector (DTLLS)].
- (HEFCE 2014[10], Annex A)

Other higher level courses (mainly professional awards) not covered by the statutory definition are described, in a default term, as 'non-prescribed' higher education (NPHE). This covers those qualifications at level 5 and above on the EQF awarded by Awarding Organisations (AOs) recognised by the accreditation agency, the Office of Qualifications and Examinations Regulation (Ofqual.) These qualifications include National Vocational Qualifications (NVQs) at levels English National Qualification Framework (NQF) level 4 and above, and a range of professional body qualifications[11].

In England, HVE is largely associated with sub-degree level HE and most of the provision is delivered by FE colleges, private providers and in-company. Provision at a sub-degree level includes Foundation degrees, Higher National Certificates, Higher National Diplomas (please refer to Appendix I for details on each of these qualifications) and others. Some Honours Degrees and Masters Degrees can also be classed as HVE or PHE, particularly in instances when these relate to occupations at professional and higher technician levels (please refer to Appendix I for details of Honours degree and Masters Degree programmes).

Validation arrangements for Foundation Degrees (FDs) are effectively the same as for an honours degree, although there is a separate generic framework for higher education qualifications (FHEQ) benchmark statement that describes the distinctive features, general characteristics and generic outcomes of foundation degrees. Other characteristics of foundation degrees include originally (until 2007) the need for each award to have a named honours progression award and evidence of adequate employer involvement in design and validation.

Higher National Qualifications: Higher National Certificates and Diplomas (HNs) are conferred by an awarding organisation, Pearson or a university with degree awarding powers under licence from Pearson. The Pearson courses are developed and validated nationally, with employer involvement.

[10] DBIS (2011) HEFCE (2014) Guidance for applying to directly funded by HEFCE in 2015-16, June 2014/11.

[11] In England the National Qualifications Framework does not completely align with the EQF as level 4 in the NQF is viewed as an HE level qualification

HVE also includes higher apprenticeships and degree apprenticeships that are apprenticeship programmes at EQF levels 5, 6 and 7 and also English NQF at level 4. Higher apprenticeships can include qualifications at EQF levels 5 such as HNC, HND, Foundation Degrees (although not necessarily - as part of the new apprenticeship standards in England, apprenticeships can be developed without a formal qualification), whereas degree apprenticeships include a Bachelors (level 6) or Masters (level 7) degree. Higher apprenticeships can include prescribed HE qualifications, non-prescribed HE qualifications or a combination of both. Please refer to Appendix 1 for further details on higher apprenticeship programmes.

It must also be noted that apprenticeships are currently undergoing a major reform in England that aim to place the 'employers in the driving seat'. It is anticipated that these reforms will make the provision better suited to meet the employer needs. Apprenticeships are also being promoted as a genuine alternative to university education. In 2013, thirty-eighty percent of young people in England aged 18 and 19 progressed to prescribed higher education[12] and until recently the uptake of higher apprenticeships has been very low. In 2014/15, there were 499,900 apprenticeship starts in England, of which there were only 19,800 Higher (Level 4 and above) apprenticeships.[13]

1.2.2 PROVIDERS OF HVET/PHE

Higher education in England can be offered by a variety of providers – colleges, private and not-for-profit organisations - if they meet several regulatory requirements, although the vast majority of HE students study HE in universities with degree awarding powers. Please see chapter 3 for statistical information on the number of institutions, and the volume of students studying HE in universities and colleges.

Traditional academic professional higher education (see information paper) is mainly offered by universities and some colleges through the full-time three or four-year degree/masters course. Some professional training is longer and can include doctoral attainment. These programmes are developed, validated and awarded by a university with degree awarding powers – an awarding body - conferred on the institution by the Privy Council. These programmes are accredited by a relevant voluntary or statutory professional body and

include professional areas such as nursing, medicine, architecture, social work and engineering.

College HE (CHE) is characterised by its sub-degree level provision that is often vocational in nature, and has conventionally been studied largely on a part time basis by more mature students over 25 years of age. However, in the recent years there has been a decline in the number of students studying part time CHE (whereas this decline in part time HE students has been more pronounced in universities). While College HE is predominantly HVE, the same cannot be asserted for all universities. . Significant variations can be noted in the provision delivered by different universities.

Degrees awarded by older and research intensive universities are generally highly 'academic' in nature, whereas newer universities referred to as 'post-1992' universities tend to teach a range of courses including those that are more 'vocational' in nature.

FE colleges in England do not have Taught Degree Awarding Powers (TDAP) and therefore cannot award Honours degrees in their own right. While universities have the powers to award degrees, FE colleges can award their own Foundation Degrees (albeit a very small number of FE colleges currently have Foundation Degree Awarding Powers (FDAP). FE colleges therefore deliver awards validated by partner universities or deliver external awards validated by awarding bodies.

[12] DBIS (2015) Statistical First Release https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/458034/HEIPR_PUBLICATION_2013-14.pdf (accessed 03/05/16)

[13] Briefing paper Apprenticeship Statistics England: (1996 -2015) Number 06113, 5 January 2015

1.2.3 HOW IS HVET/PHE FUNDED

Under the revised arrangements for funding prescribed HE, introduced in September 2012, the grant from HEFCE was reduced, the tuition fee cap was increased to £9,000 and more public funding was provided directly to students in the form of tuition fee loans administered by the Students Loans Company (SLC). Funding for higher education in England is increasingly via student tuition fee loans with subsidies for high cost and vulnerable subjects and extra support for access and widening participation measures.

Overall, regulation of public providers of HE resides with HEFCE within a policy framework and direction determined by the relevant government department, Business Innovation and Skills (BIS). There is, at present, a separate regulatory system of course designation allowing access to public loans for the alternative – or private - HE sector overseen by BIS, HEFCE and the SLC.

Eligible home students studying at a university/college can take out a student loan of up to £9,000 from the Student Loan Company (SLC) whereas those studying for eligible courses at (eligible) private providers can take out a maximum loan of £6,000 per year. Institutions that charge £9,000 per year are required to complete an access agreement to support widening participation activities. STEM qualifications that are known as high-cost subjects - are part-subsidised by HEFCE to cover the higher delivery costs for these subject areas.

Non-prescribed HE delivered in colleges can be funded by the Skills Funding Agency (SFA), and the funding is determined by the learning aims of the students. Eligible students studying at EQF level 5 can take out '24 plus advanced learning loans' that are different from those available for students studying prescribed HE courses.

Unlike prescribed and non-prescribed HE courses, students pursuing higher apprenticeships and degree apprenticeships do not take out tuition fee loans as these programmes are funded by the government and the employer that recruits the apprentice. Apprentices do not pay the costs of training or assessment and are not charged student fees for their apprenticeships.

1.2.4 HOW IS QUALITY ASSURED

The Quality Assurance Agency (QAA) is contracted by HEFCE to undertake external quality assurance of the provision, HE Review (HER), and maintains this role on behalf of its subscribers and the wider HE sector. To assure academic standards and quality, prescribed HE programmes are referenced against the FHEQ; relevant honours subject benchmarks, acknowledgement of professional body entry regulations (and the Quality Code (QC). The QC is a sector owned document that "makes clear what higher education providers are required to do, what they can expect of each other, and what the general public can expect of them".[14]

Universities and colleges are expected to adopt processes that meet the expectations contained in the QC in their internal quality assurance systems, including the key role of programme external examiners. These processes are periodically externally assured through the HER method against the expectations. QAA is also presently developing its links with employers and has developed a series of initiatives identifying how students can develop employability skills through their degree programme.

HNs are mainly offered by public colleges and private HE providers which are approved by Pearson and must demonstrate they have the resources required for effective delivery and assessment and a robust internal verification system. The courses cover a wide range of technical areas and have a similar, but not identical, quality assurance system as degrees. Pearson HN holders have comparable attributes to certificate and diploma holders on the FHEQ and the provision is externally reviewed by QAA's HER. An anomaly in the HE system is that Pearson, as a non-HEI awarding organisation, is regulated by Ofqual and subject to its general conditions of recognition.

Non-prescribed HE is not subject to quality assurance by the QAA and can be subject to quality monitoring by the Office for Standards in Education, Children's Services and Skills (Ofsted). Higher apprenticeships that include prescribed HE qualifications are subject to quality assurance by the QAA. The Federation for the Industry Sector Skills and Standards has the responsibility for

[14] QAA Quality Code: http://www.qaa.ac.uk/publications/information-and-guidance/publication?PubID=181#.VEYfbBbVd2B (accessed 29/04/16)

providing the final apprenticeship certificate and for quality assurance of the apprenticeship process. Also, as part of the new apprenticeships standards arrangement, the government plans to establish a new independent body – the Institute for Apprenticeships – led by employers, to regulate the quality of apprenticeships.

1.2.5 ROLE OF OTHER AGENCIES

Prescribed as well as non-prescribed HE programmes can be accredited by sector-specific professional bodies. Formal accreditation by professional bodies significantly enhances the status, relevance and currency of HE qualifications. Some examples of programmes recognised by professional bodies are included in Appendix I.

1.3. DATA ON HVET AND PHE IN ENGLAND

As noted earlier, identification of HVE qualifications is not straightforward and therefore extraction of datasets relating to students pursuing the various qualifications that can be distinctly classified as HVE or PHE is beyond the scope of this report. Nevertheless, this chapter presents a summary of HE qualifications at various levels (including sub-degree level HE qualifications that are broadly classed as HVEtaught in universities as well as colleges.

This chapter primarily draws on data supplied by HEFCE (using HE Statistics Agency and Individual Learner Return data) and presents a summary of the number of students studying HEFCE recognised HE[15] at colleges and universities in England during the academic year 2013/14. The data was available in FPE (Full Person Equivalent) and FTE (Full Time Equivalent) count, however, the chapter presents data largely in FPE count[16]. It must be noted that a large number of colleges also deliver non-prescribed HE that is not recognised by HEFCE; the HEFCE data does not include student numbers studying on such courses. HEFCE recognised HE has been referred to as 'recognised HE' throughout the chapter.

Number of institutions

A total of 131 universities and 245 colleges taught HEFCE recognised HE provision in 2013/14. Forty-

one of these colleges HE students were registered with a university and taught at the college in a franchise arrangement; in essence, the students are 'owned' by the university. However, only a small proportion of HE is delivered in colleges – about 7% of all EQF level 5 and 6 students.

Student numbers

Students studying HEFCE recognised HE in colleges are taught in colleges, but can be registered at colleges or partner universities. As shown in table 3.1a, a majority of students taught in colleges in 2013/14 were registered at colleges.

2013/14 FECs	FPE	FTE
Total number of students taught HEFCE recognised HE in colleges	106,510	91,775
Of which, those registered at universities and taught at colleges	33,945	26,380
And those registered and taught at colleges	72,560	65,395

Table 3.1a Total number of students taught HEFCE recognised HE in colleges

[15] HEFCE recognised HE comprises all students registered on courses of HE at universities or HEIs, and only those students registered on prescribed courses of HE at colleges or FECs. Where students are registered at an HEI but taught at an FEC through a franchise arrangement, the courses being counted could include non-prescribed HE (NPHE), as HEFCE can fund NPHE in HEIs.

[16] The FPE count is different from headcount figures in that it takes into account that individuals can be taught through collaborative arrangements at two (or more) institutions. In order to count provision against both institutions, HEFCE divides the student counts between teaching institutions in proportion to the percentage of time taught at each institution. This results in counts of full-person equivalents (FPEs). The same methodology is applied by HEFCE where students are studying more than one subject on a course. The FPE count is a more accurate measure of HE provision than using headcounts. All FPEs and FTEs have been rounded to the nearest 5.

The total number of students studying recognised HE in universities are depicted in table 3.1b. In addition to the students studying at colleges and universities, an additional 18,125 FPE students were registered at a university or college and taught at an alternative provider. Note that the numbers included in this report do not include students registered for an HE qualification at an alternative provider.

2013/14 Universities	FPE	FTE
Total number of students taught HEFCE recognised HE in universities	1,845,980	1,483,605

Table 3.1b Total number of students taught HEFCE recognised HE in universities.

Mode of Attendance

The number of part time student studying in HEFCE recognised courses in English colleges has been declining. The part time student numbers declined from 60,465 in 2008/09 to 41,025 in 2012/13[17] (Saraswat et al, 2015[18]), and this number has further declined to 36,675 in 2013/14. It must be noted that in 2012/133, the total number of students studying recognised HE courses in colleges was 108,595, of which 41,025 and 67,570 were studying on a part time and full time basis respectively. As indicated in table 3.2a below, the number of part time students has declined to 36,675 whereas the number of full time students has increased to 69,830, thereby off-setting an overall decline in total student numbers from 2012/13 to 2013/14.

2013/14 Colleges	FPE	FTE
Total number of FT students taught HEFCE recognised HE in colleges	69,830	70,055
Total number of PT students taught HEFCE recognised HE in colleges	36,675	21,720

Table 3.2a Number of FT and PT students studying recognised HE in colleges

[17] Some institutions may have been counted as colleges in the 2012/13 and as a university in 2013/14. Movement in institutions between sectors in the two years have not been accounted for while comparing data for 2012/13 drawn from Saraswat et al (2015) and the data for 2013/14 presented in this report.

[18] Saraswat, A. with Hudson, A. and Thompson, A. (2015) Understanding Part time College Higher Education. London: Association of Colleges.

As depicted in table 3.2b, a majority of recognised HE is studied in universities on a full time basis. Total part time HE in England has declined significantly and an overall decline of 55 percent has been noted between 2010/11 and 2014/15 (HEFCE, 2015).

2013/14 HEIs	FPE	FTE
Total number of FT students taught HEFCE recognised HE in universities	1,364,930	1,293,555
Total number of PT students taught HEFCE recognised HE in universities	481,050	190,045

Table 3.2b Number of FT and PT students studying recognised HE in universities

Age group of students

As highlighted in table 3.3a, a notable proportion of students studying at colleges, in particular, those studying on a part time basis are over 25 years of age. FT students tend to be younger and a majority are from the 'under 21' age group.

2013/14- Colleges	Under 21 (FPE)	21-24 (FPE)	25 and over (FPE)
Total number of students taught HEFCE recognised HE in colleges	46,640	21,405	38,460
Number of FT students taught HEFCE recognised HE in colleges	37,735	13,420	18,680
Number of PT students studying HFECE recognised HE in colleges	8,905	7,985	19,785

Table 3.3a Age group of students studying recognised HE in colleges

As indicated in table 3.3b, a large proportion of students studying HE (both FT and PT) at universities are under 21 years of age although a majority of those studying on a part time basis are 25 and over.

2013/14- Universities	Under 21 (FPE)	21-24 (FPE)	25 and over (FPE)
Total number of students taught HEFCE recognised HE in universities	931,250	325,990	588,740
Number of FT students taught HEFCE recognised HE in universities	895,795	257,050	212,085
Number of PT students studying HFECE recognised HE in universities	35,455	68,935	376,655

Table 3.3b Age group of students studying recognised HE in universities

Qualifications

Foundation degree is pursued by the largest proportion of those studying recognised HE in colleges, followed by those studying for an Honours degree (table 3.4a). Higher National Certificates are studied by a majority of students on a part time basis, whereas Higher National Diplomas (HNDs) are studied in a FT mode. There is only a small number of students studying on post graduate taught programmes.

2013/14-Colleges	Total FPE	FT FPE	PT FPE
Diploma	1,450	395	1,055
First degree	27,910	23,865	4,045
Foundation degree	43,095	31,615	11,475
HNC	13,100	2,310	10,790
HND	12,210	9,735	2,475
Postgraduate research	0	0	0
Postgraduate taught	3,945	1,395	2,545
Undergraduate other	4,805	515	4,295

Table 3.4a Qualifications studied by students studying recognised HE in colleges

Although the number of students studying HE in colleges is a small proportion of those studying HE in universities, the number of students studying Foundation degrees at FECs (43,095) is greater than those studying Foundation degrees at universities (28,535) (table 3.4 below). Similarly, HNCs and HNDs are taught primarily in colleges and the numbers of those studying for these sub-degree qualifications at universities is low.

2013/14-Universities	Total FPE	FT FPE	PT FPE
Diploma	11,055	6,500	4,555
First degree	1,265,085	1,084,170	180,915
Foundation degree	28,535	14,205	14,325
HNC	2,385	695	1,695
HND	2,735	2,010	725
Postgraduate research	91,175	66,405	24,775
Postgraduate taught	345,635	181,225	164,410
Undergraduate other	99,370	9,725	89,645

Table 3.4b Qualifications studied by students studying recognised HE in universities

Subjects

Creative Arts and Design, Engineering and Technology, Business and Administrative studies and Education are the key subjects studied by those pursuing recognised HE in colleges (table 3.5a). It may be noted that a large proportion of those studying on Engineering and Technology courses, do so on a part time basis whereas Creative Arts and Design, and Business and Administrative studies courses are dominated by full time students.

2013/14-Colleges	Total FPE	FT FPE	PT FPE
Medicine and Dentistry	120	80	40
Subjects allied to Medicine	5,970	4,320	1,650
Biological Sciences	7,935	6,970	965
Veterinary Sciences	85	20	65
Agriculture and related subjects	5,900	4,850	1,050
Physical Sciences	600	440	160
Mathematical Sciences	130	125	10
Computer Science	6,180	5,080	1,100
Engineering and Technology	15,980	4,500	11,480
Architecture, Building and Planning	2,895	670	2,225
Social studies	8,085	6,110	1,975
Law	1,135	905	230
Business and Administrative studies	14,230	10,305	3,920

Mass Communications and Documentation	1,210	1,135	75
Languages	445	420	25
Historical and Philosophical studies	380	355	25
Creative Arts and Design	18,095	16,700	1,395
Education	11,210	5,560	5,650
Combined	5	5	5
Initial Teacher Training	5,780	1,160	4,620
Geographical Studies	140	120	20

Table 3.5a Qualifications studied by students studying recognised HE in colleges

2013/14-Universities	Total FPE	FT FPE	PT FPE
Medicine and Dentistry	53,275	44,185	9,090
Subjects allied to Medicine	219,995	128,555	91,440
Biological Sciences	165,675	130,375	35,300
Veterinary Sciences	4,345	3,860	485
Agriculture and related subjects	12,175	8,750	3,425
Physical Sciences	56,450	49,895	6,555
Mathematical Sciences	37,105	29,845	7,260
Computer Science	71,640	56,145	15,495
Engineering and Technology	121,635	99,470	122,165
Architecture, Building and Planning	39,220	29,220	10,000
Social studies	164,190	124,930	39,260
Law	73,950	58,415	15,535
Business and Administrative studies	268,740	207,085	61,655
Mass Communications and Documentation	42,230	39,005	3,225
Languages	96,345	74,900	21,445
Historical and Philosophical studies	72,815	51,405	21,410
Creative Arts and Design	141,570	131,285	10,285
Education	84,355	29,735	54,620
Combined	47,940	3,150	44,790
Initial Teacher Training	43,640	40,135	3,500
Geographical Studies	28,695	24,585	4,110

Table 3.5b Qualifications studied by students studying recognised HE in universities

1.4 PARTNERSHIPS BETWEEN EMPLOYERS, HVET PROVIDERS AND STUDENTS

This chapter presents a brief review of the literature relating to employer engagement in HE. References are also made to the role of students in partnerships between employers and HE providers. Employer engagement in HE has been gaining significance although this area still demands considerable development. There have been persistent calls for enhancing employer engagement in HE and successive governments have recognized the economic and societal benefits of employer-HE collaborations. The concept of 'employer engagement' is nuanced and the extent to which employers may be engaged with HE providers can vary considerably. There are some instances of successful and mutually beneficial collaborations between employers and HE providers however, these may lack a long term strategic focus.

Policy reviews and recent developments
The need for an increased and sustained interaction between industry and higher education has been persistently recognised and documented in the UK. In 1997, the Dearing report recommended that employers are more engaged with HE and particularly highlighted the significance of work placements and work experience for students (Dearing[19], 1997). Another review on Business-University collaborations conducted in 2003 proposed building new networks amongst research intensive businesses and recommended that more frequent and easy communications between business people and academics must be encouraged to facilitate best forms of knowledge transfer (Lambert[20], 2003).

Another report that has been significant in this space was the Leitch review that recommended that 40 percent of working age population should be qualified to level 4 and above by 2020 (Leitch[21], 2006). The review called for an increased engagement and investment from employers with higher education, to drive management, innovation and workforce development.

In 2006, HEFCE established three regional higher level skills pathfinder projects, in the North East, North West and South West regions of England. The role of these projects was to explore a range of strategies to increase higher engagement with employers and regional

skills strategies. The most financially viable projects were found to be the ones where the employers took responsibility of most of the development costs, these costs were spread over a large number of cohort sizes, years run or size of credits, and delivery was efficient (HEFCE[22], 2010)

In 2012, Wilson's review pointed out that since the Lambert Review (2003) there has been a huge change in both the 'quantum and the quality' of business–university collaboration and that this change had not only been stimulated by government funding initiatives but also by a growing realisation, within both business and universities, of the central role of universities in providing high-level skills, a world-class research base and a culture of inquiry and innovation. The review also noted the existing and expanding good practice in business–university collaboration in degree programme design, delivery and sponsorship which was advantageous for companies, students and universities (Wilson[23], 2012).

In 2015, the UK government published its plans for addressing the productivity problems in the UK in Fixing the Foundations[24] and introduced a series of responses to help improve the productivity of the nation. One of the approaches for driving productivity is through raising the level of skills available in the economy through education and training.

[19] Dearing, R (1997), Higher education in the learning society, Report of the National Committee of Enquiry into Higher Education, HMSO, London

[20] Lambert, R. (2003) Lambert review of Business-University Collaboration, HMSO, Norwich

[21] Leitch (2006), Leitch Review of Skills: Prosperity for All in the Global Economy – World Class Skills Final Report http://www.delni.gov.uk/the-leitch-review-of-skills

[22] HEFCE (2010) Employer engagement: the costs of the development and delivery of work-based learning experiences Report to HEFCE by South West Higher Level Skills Pathfinder Project, available at http://www.hefce.ac.uk/media/hefce/content/pubs/2010/rd2210/rd22_10.pdf

[23] Wilson, T. (2012) A Review of Business-University Collaboration, Department for Business, Innovation and Skills, London

[24] Fixing the Foundations, Creating a more prosperous nation, July 2015

The UK government aims to respond to the calls of businesses for work ready skills and particular emphasis has been placed in developing high quality training routes to help the learners in developing skills tailored to a particular sector or industry while they learn. The Government's Productivity Plan aspires to create a "highly skilled workforce, with employers in the driving seat".

New Degree Apprenticeships are being promoted to help employers access the skills they need to increase productivity in their businesses and it is anticipated that the employers will make use of the apprenticeship levy across a range of qualifications including Bachelors' and Masters' degrees. The recent White Paper 2016[25] emphasizes that the success of Degree Apprenticeships will depend on employers and universities working together and £8m Development Fund has been made available to help providers to gather intelligence on employer demand and develop provision quickly to help meet that.

Employer engagement
Multiple interpretations of employer engagement dominate the literature. One of these interpretations can be associated with the employer engagement in HE to help upskill the nation's workforce.

…some have firmly associated it [employer engagement] with 'workforce development' (usually through 'work-based learning' (WBL)) for people already in employment as part-time, mature students. From this perspective there has been much emphasis on 'demand-led' education whereby courses are adapted to the requirements of specific employers both in terms of content and mode of delivery (usually through flexible, 'bite-sized' learning, often in the workplace and/or outside of normal working hours). (Bolden et al[26] 2010, page 8)

Whilst the above focuses on employer engagement as it relates to 'workforce development', employer engagement actually spans activities and initiatives that are beneficial for younger full time students as well as mature and part time students.

"Employer engagement is defined as a range of activities, initiatives and approaches which are best conceptualised as a continuum. It includes responsive teaching and learning developments for upskilling and developing people already in work as well as fostering capability and

attributes to enhance the employability of students in higher education". (Kettle[27], 2013, page 4)

Other interpretations of employer engagement have also been recognized in the literature where employer engagement is conceptualized as a continuum from superficial to more embedded and deeper levels of commitment and engagement from employers.

Benefits of employer engagement
Effective collaboration between the higher education sector and employers has a crucial contribution to make, not only to individual firms' competitiveness but also to UK's economic growth. Collaborations with HE offer several benefits for businesses. Businesses are constantly seeking to improve competitiveness and productivity and to attract and retain talented employees and engagement with universities can help to do this in three major ways: by reducing cost and risk, by providing access to new ideas and horizon scanning and by supporting the development of research skills, capability and profile (CBI[28], 2015).

Whilst employers collaborate with HE providers to improve their competitiveness and productivity, ensure relevant pathways into industry are in place, attract new talent into an industry or region, retain and train existing staff, the reasons why providers tend to collaborate with employers include- to extend the diversity and relevance of the curriculum, differentiate their offer from other universities, increase student employability through work-based practice, and to raise their profile and increase income diversity (UKCES and UUK[29], 2014).

[25] Department for Business, Innovation and Skills (2016) Success as a Knowledge Economy: Teaching Excellence, Social Mobility and Student Choice, Cm9258
[26] Bolden, R., Hirsh, W., Connor, H., Petrov, G. and Duquemin, A. (2010) Strategies for Effective HE-Employer Engagement, A South West Higher Level Skills Pathfinder Research Report available at http://www.linkinglondon.ac.uk/linkinglondon/resources/employability-engagement-1/report_Feb2010_Strategies_for_Effective_HEEmployer_Engagement_SWHigher_Skills_report.pdf
[27] Kettle, J. (2013) Flexible Pedagogies: employer engagement and work-based learning, Higher Education Academy, York
[28] Confederation of British Industry (2015), Best of Both Worlds. Guide to University-Industry Collaboration. Available at http://news.cbi.org.uk/reports/best-of-both-worlds/best-of-both-worlds-pdf/

Collaborations between HE providers and employers present significant benefits for students. Employer engagement can help enhancement of student employability through the opportunity to gain industry/work-relevant skills, experience and knowledge, and in some cases professional qualifications and accreditation. Collaborations can help creation of 'work-ready' graduates for employers, equipped with the skills, knowledge and experience required for the workplace workforce development, and providing the current and potential workforce with opportunities for developing their skills through a variety of high-quality flexible study opportunities (QAA[30], 2014). Therefore, collaborations between HE providers and employers can offer benefits to employers, providers as well as students.

Barriers to collaboration
Despite the several benefits for all the stakeholders involved, considerable improvements need to be made in developing these relationships. Initiating and developing collaborations is confronted with several barriers. A recent report published by University Alliance noted some of the barriers in developing deeper collaborations between employers and providers. These include the complexity of the education system with different providers offering skills at different levels – all of which may be required by the same employer, another barrier is the challenge of incentivising employers to commit sufficient resource towards the cost of providing graduates with the skills they need, which may be compounded by the fact that educational engagement with employers takes place at a faculty level rather than centrally. This may present particular challenges for small and medium sized enterprises. Thirdly, strong leadership and long-term commitment is required to embed employer engagement within the organisations rather than relying on individual members of staff, who may leave (University Alliance[31], 2015).

Ketlle (2013) noted that the use of different commercial and academic language between the different parties involved can act as a barrier in employer-HE collaborations as can the differences in the emphasis on qualifications and credit recognition by providers in possible contrast with the priorities of employers who may be seeking more general business solutions which may be more closely aligned to training needs and improved employee and organisational efficiency.

Therefore, differences in the cultures and emphases of employers and providers can act as barriers in developing partnerships.

Areas for development
A number of approaches can help improve collaborations between HE providers and employers. A report conducted by QAA looked at a range of practices that were identified, through an analysis of over 200 individual review reports and a sample of self-evaluation documents submitted by providers for their review. A helpful summary of approaches for strengthening the collaborations and areas for improvement were identified.

Amongst others, the report identified the following:
• taking a strategic approach to employer engagement and ensuring that the mechanisms are effective and sustainable over time, with a consistent and coordinated approach across the institution;
• encouraging greater participation from employers in approval, validation, review and monitoring processes, by means of opportunities to provide feedback and/or formal membership of relevant committees and boards;
• ensuring greater consistency in the approach, volume and quality of input from employers in the development and design of curricula, across programmes;
• sharing good practice throughout the institution, to support employer engagement in curriculum design and delivery;
• creating opportunities, where appropriate, for practitioners and professionals to provide an input into the delivery of the curriculum, embedding vocational relevance and knowledge;
• creating opportunities for staff to maintain current industry knowledge and experience;

[29] UK Commission for Employment and Skills and Universities UK (2014), Forging Futures– Building Higher Level Skills Though University and Employer Collaboration https://www.gov.uk/government/publications/forging-futures-building-higher-levelskills-through-university-and-employer-collaboration

[30] Quality Assurance Agency (2014) Employer Engagement Emerging Practice from QAA Reviews, QAA, Gloucester

[31] University Alliance (2015), Mind the Gap: Engaging employers to secure the future of STEM in higher education. Available at http://www.unialliance.ac.uk/wp-content/uploads/2015/10/Mind-the-gap-web.pdf

• encouraging employers to contribute to the design of, and participate in, work-related assessments, and provide feedback to students to support achievement and attainment;
• providing clear information for employers, clarifying expectations, roles and responsibilities and the mechanisms for, and benefits of, engagement;
• Monitoring the impact and effectiveness of employer engagement strategies and plans, informed by the collection and interpretation of meaningful information. (QAA, 2014, page 6).

Assertions are also made in favour of a strong strategic focus to ensure that the benefits of collaborations are realised. A joint report commissioned by the UK Commission for Employment and Skills and Universities UK highlighted that collaborations works best when they are part of the organisational cultures of the partners involved and when they become a core part of how both businesses and providers think about skills development. Achieving this means collaborations need to be driven by clear, demand-led and identifiable business requirements and such strategic partnerships can help to tackle specific problems that are not currently being addressed through mainstream education, with bespoke products, programmes and services that can be developed as an outcome of these partnerships (UKCES and UUK[32], 2014). Therefore, it is imperative that collaborations or partnerships between employers and HE providers are not just ad-hoc or superficial, but they are deeper and strategic in nature that can help realise the benefits for all the stakeholders involved.

These findings have significant implications for national and EU policy development and resource allocation in this area. And more specifically indicate that employer/provider collaboration could be significantly enhanced by the creation of employer-focussed measures that could help employers enter the world of curriculum development, validation and the re-contextualisation of knowledge/skill with at least the tools to influence and work as partners.

The next chapter draws on primary research with the three key stakeholders -employers, providers and students - involved in these collaborations and explores the benefits, barriers and approaches to developing strong partnerships.

1.5 THEMATIC ANALYSIS OF FOCUS GROUP DISCUSSIONS

This chapter presents findings from the three focus groups discussions conducted with key partners of the strategic triangle- employers, providers and students. The participants as well as their organisations/institutions who took part in the study have been anonymised in the writings. Whilst the employer discussion took place with the employers who worked collaboratively with an FE college, student discussion with students at another FE college and the provider discussion with participants from FE colleges, during the discussions the term 'provider' was used to refer to providers of HE more generally.

The key themes from each of the discussions are outlined in the individual sections below. Please note that unless specified explicitly, the term graduate has been used to refer to those who have graduated with HVE qualifications as well as more broadly. The research participants used the terms HE and HVE interchangeably and this is reflected in the writings. It must be noted that the term HVE is not well recognised in England and the term has only been introduced relatively recently in the policy literature (as indicated in chapter 2).

[32] UK Commission for Employment and Skills and Universities UK (2014), Forging Futures– Building Higher Level Skills Though University and Employer Collaboration https://www.gov.uk/government/publications/forging-futures-building-higher-levelskills-through-university-and-employer-collaboration

1.5.1 FOCUS GROUP - EMPLOYERS

This section draws on findings from a focus group discussion with the employers. Six participants representing five employers/ organisations took part in the discussion. The duration of the discussion was approximately 1 hour and 38 minutes and was facilitated by two members of the research team. A member of college staff also attended and contributed to the discussion. The discussion was digitally recorded and transcribed and the key themes from the discussion are summarised as under:

Labour market and employer needs
The participants perceived that, in broad terms, academic and general HE courses do not meet the requirements of the labour market. Whilst HVE is expected to be aligned more closely to the needs of the labour market than academic HE, graduates with degrees/qualifications that have a vocational focus do not adequately meet the employer needs. During the discussion, it was rehearsed that employers perceive that graduates are not 'work ready' and they often lack the 'hard skills' that may be out of date and lack currency especially in relation to fast changing industries, such as, IT. This often leads to and deepens skills gaps in such industries (for instance, in mobile development) because any skills demand for specialist and current technologies cannot be met in an adequate and timely manner. In such instances, companies attempt to address these gaps by recruiting specialist consultants that can command a high premium for their 'rare expertise'.

In areas such as Engineering, it was argued, that students often have the theoretical understanding of the subject, however, they lack practical knowledge and expertise and therefore employers are obliged to invest in their training to prepare them for their job roles. It is notable that such preparatory training could even take place in the form of apprenticeships that may be at the same level or lower level than the highest qualifications already held by the graduates.

We've taken on engineering graduates before and we've nigh on had to put them through an apprenticeship programme to get the skills to be able to fulfil their role within the factory….. They realise that when they get down into the factory they've got no choice. They can't deliver. (Participant 5)

One of the underpinning issues is the inadequacies in the curriculum that does not prepare graduates appropriately for 'real-life' work situations. The curriculum is perceived to be narrow that does not encourage creative and entrepreneurial thinking, which is deemed to be essential for contemporary businesses.

The current literature in England is dominated by references to graduate employability and even in sectors such as IT that are known have skills shortages, graduate unemployment and under-employment remains high. Part of the problem is the curriculum that is out of date, as well as its focus remains on theory rather than practice. These issues were mirrored in the discussion with the employers who emphasized that they receive a high volume of applications from graduates for non-graduate roles.

There is also a paradox for graduates, a majority of whom tend to be in some form of employment whilst they study on a full time or part time basis. On the one hand, whilst studying on their HE courses, students fail to secure jobs that are relevant to their chosen careers owing to a lack of work experience, and on the other, they are challenged in securing lower level roles (for instance, in retail) because of high levels of competition for a limited number of low-skilled jobs.

There is also a criticism that graduates do not necessarily understand the labour market and can have 'unrealistic expectations' about their employment prospects. The discussion highlighted that graduates do not adequately recognise that there are limited number of jobs with large multi-national firms and whilst there are disparities between the English regions, the labour market is dominated by small and medium sized enterprises (SMEs).

Apple is always used as a good example of doing this or doing that – but it's a massive corporate and a lot of things you learn about Apple don't apply to SMEs or start-ups or charities or not-for-profits. Actually, there are a lot jobs in those areas, and students are thinking they need to go and work for Google or Apple, a big company, whereas actually most jobs are in SMEs. So there is that disconnect there. (Participant 4)

Hard skills vs 'other' skills
The focus group participants confirmed that they were critical when recruiting graduates for a number of reasons including a lack of relevant practical skills, high salary expectations, and a lack of 'right attitude'. Whilst an 'under-prepared-ness' of HE graduates was emphasised in relation to a perceived shortage of sector-specific technical or 'hard' skills, for some employers, other 'soft' skills were the key reason to explain the inability of some graduates in meeting the needs of workplace.

The 'right attitude' of graduates was the key to offer a 'fit' to the workplace, in so much as, for some participants, this was even more important than the job-specific hard skills. The recruiters at an Accountancy firm rated the right work ethic and other soft skills, such as, team working and willingness to learn together with a positive attitude to be more important than the knowledge of Accountancy. The company had rejected candidates from highly reputable and prestigious universities and selected those with a positive approach and 'right attitude'; even when their university degree was not in area that related to Accountancy.

To me, attitude goes a long way. And it's not necessarily about the brightest individual; it's about the ones with the right attitude. And we need to have the right people with the right outlook on life, the right attitude, the team ethic, to fall in as part of that – it's really important to us. So when we're looking for people, we're looking for that as much as we're looking for academic ability. If they're the right person then you can train them to do lots of things – but actually it's difficult to train attitude. (Participant 1)

It was further noted that some companies prefer to recruit staff at lower levels and develop them. This ensured that the employer could 'mould' young people into the company's culture, which can benefit the employers in multiple ways. This can help in increasing retention rates and reducing staff turnover and help with the succession planning.

Triggers for collaboration
Collaborations between employers and HE providers can be initiated in a number of different ways. Proactive providers place an emphasis on reaching out to local employers and use different means to engage with them, for instance, through hosting employer forums and inviting local employers, and simple communications from marketing or business development teams to

raise their awareness about the college's offer. However, employers are more likely to participate and engage if they have a business need and they feel convinced that the partnership will offer them the desired benefits.

A specific skills need can trigger the employer's search for an education/training provider and positive reputation and word of mouth encourages the employers to work with specific providers. One to one relationships between teaching staff and employers, can be initiated through an informal dialogue and exchange at business events or elsewhere.

A relationship between an Accountancy firm and the provider was initiated largely because of positive experience of the company in recruiting a college student for a part time job and it developed further through the right attitude of the student followed by proactive approach and right attitude and interest from the students' tutor.

This has grown, and it only started from one of the students who is working with us. She just turned up on our doorstep and said 'I'd like a job for two days [a week]'. And it's grown out of that. We could see that relationship was working very well, so I met with her tutor and it's grown into building a relationship with the university. (Participant 2)

Benefits of collaboration

All participants in the discussion agreed that it is vital that the employers are involved and engaged in the design, development and delivery of HVE. It is mutually beneficial for employers, providers as well as students. Working closely with the providers can help the employers to ensure that the students meet the needs of the labour market, in particular, in specialist and niche areas. Engaging with the providers can offer opportunities for shaping the curriculum that can help to meet the business needs.

I'm sure that if [Company X] were here they'd be telling you the same thing and that's one of the primary reasons that they get involved in the curriculum development area, ECP[Extended Capabilities Port], is because they need these very high level computer programming skills, coding skills, that they just can't get from anywhere else at the moment. (Participant 3)

Employers can not only ensure that they have access to a talented pool of applicants that meet their business needs through their knowledge of technical skills but close engagement with employers can help enhance employability of students through making them more aware of the labour market and developing their soft skills and work ethics. One of the participants highlighted that close collaboration with the college ensured that they were provided a list of students that were recommended by the tutors which helped the company save time in the recruitment process and improve the quality of their workforce. Collaborations with providers were also noted to present opportunities for research and knowledge transfer.

Providers that work closely with employers can enhance employment opportunities for their students through offering them work placements or jobs in their chosen industry post-completion of studies. Work placements or part time jobs alongside their education can significantly improve the job prospects for young graduates upon completion of their studies. Employers greatly value work experience and prefer those with relevant work experience in contrast with those without it. Academics may themselves benefit from working closely with the employers because it can help them maintain the currency of their programmes and keep them abreast of the newer developments in their relevant sectors.

Other wider benefits of collaborations between employers and providers also surfaced during the discussion. More competent and work ready graduates can help address the needs of smaller businesses that may otherwise not be able to invest time and resource in working with the providers. Working with the educational providers can help the employers to contribute to wider societal and economic good and make positive contributions to the local communities.

Relationships with providers

Employers work with different types of education and training providers and it emerged that the participants tended to select from different types of providers depending on the business need. For short term, byte sized training needs, as well as for professional qualifications employers may prefer to work with private training providers and for very niche specialist training, employers choose to work with independent consultants that may be expensive but offer the flexibility in terms of delivery and up to date specialist knowledge that universities and colleges are perceived to be less able to provide.

Employers tend to collaborate with universities and colleges for needs that are best addressed through longer term programmes. For research and development, employers prefer to work with universities with established reputation in specific subject areas. Speed of response and flexibility is rated to be a strength of private providers in contrast with that offered by universities and colleges because private providers operate as 'businesses in their own right' and 'do not miss out on business opportunities'. Furthermore, academics at universities and colleges are perceived to lack 'real life' work experience and practical expertise themselves.

Private providers have more business relevant experience- Maybe around professional management, just because I find a lot of the academics I've engaged with haven't actually worked in business themselves. With the private training providers, they have and they have more of that knowledge and insight they can pass on in their training. I've found that very beneficial because you get the anecdotes, the case studies, which you don't always get necessarily from academics in colleges and universities, who are purely academic and haven't worked in business. (Participant 4)

The number of providers that employers engage with also varies with the size and scope of the business. Large multi-sited employers tend to work with multiple providers depending on the geography and the diverse job-specific needs. In addition to external training, employers also draw on internal training for business-specific specialist software/ technical skills and for the development of 'soft skills'.

The level of employer engagement with individual providers also varies. Some employers prefer a limited involvement in the design and development of the programmes whereas others have a deeper engagement. Employer involvement can be limited to the recruitment of students, or extend into a deeper involvement in the actual design and development of programmes, delivery and assessment as well as sharing of resources and facilities.

We're actually working with [the college] at the minute, and an HNC and an HND programme will be launched in September. So we visited the college several times because we didn't want just pure engineering because that's in place; we don't want polymers because that's too science-y; we want a combination. So we've actually been designing it with [the college]. Our engineering departments from the various sites have been here to visit and have had an input. (Participant 5)

Barriers in collaboration

Whilst the participants identified several benefits of collaborating with the providers, they also highlighted the challenges in building such collaborations. Time constraints, and limited resources act as barriers for employers to engage with the providers. Participants also highlighted that there is a degree of 'ignorance and short-sightedness' amongst some employers who perceive that it is very complicated to work with the providers or they simply feel there are no immediate or short term benefits of investing time and resource in such engagements and do not take a longer term strategic view of committing themselves to collaborating with the providers.

Whilst committing time and resource can be demanding for all employers, SMEs are particularly challenged in taking a longer term view and under resource constraints, releasing their staff for training or for engaging with the providers.

That 99 per cent of those[SME] businesses aren't engaging with universities because they're thinking about doing day-to-day, the next 18 months, before they even take on their first member of staff. The challenge for us working with small and medium-sized enterprises is that they only want to take on one or two graduates a year if that, so they can't invest huge amounts of time into collaboration with universities and colleges (Participant 3)

The challenges in SMEs and provider collaborations are not one-sided. The participants expressed their understanding that providers too can be challenged in working with the SMEs. Larger companies can offer a reasonable volume of students and a degree of consistency in demand over a certain period of time that helps the providers to commit time and resource in meeting specific employer needs, however, small employers individually cannot provide that 'critical mass' of learners.

Staff training and development requires a significant commitment from the employers, especially for prescribed HE courses under the new fee regime in England. In addition to the tuition fees, staff training often requires the employers to cover the costs for releasing the staff to study. In other instances, this may command an even higher level of resource in supporting other study related costs such as study leave, costs of books and equipment as well as the costs of providing a mentor at work. Furthermore, having made such investments, employers may have concerns about losing the staff as they can leave post-completion of their training offering little or no return on investment for the employers.

Economic fluctuations and recession can also pose as a significant barrier to employer-provider-student collaborations. With decline in profits, companies tend to reduce costs by withdrawing from investments in staff education, training and development.

Institutional cultures and structures can act as hindrances in developing partnerships. Universities and colleges are large organisations that often suffer from 'silo cultures' that inhibit them from engaging in collective initiatives of working with employers. Subject territories and disciplines can act as inhibitors in any joint work across subject areas, as staff within universities and colleges can be restricted in their willingness to work with staff from other faculties.

Furthermore, prevalence of such strong sub-cultures may also lead to an element of unhelpful competition amongst faculties.

There is a slight friction in terms of what both institutions' needs are and how they want to support the student into their career as well. Because of that friction, there are also interruptions in the way that data is stored about employers and the way that knowledge is archived and that relationships are built or broken. Sometimes the relationship with the employer is not the most important thing. Sometimes there's stuff going on behind that and it's to do with politics here. (Participant-HE provider)

Owing to the size of the universities and colleges as large providers, in the absence of dedicated teams/units, it can be challenging for employers to navigate through the systems to identify the appropriate person they need to work with. Employers can be discouraged if they do not receive appropriate and timely response from providers. An absence of a dedicated employer engagement team can pose challenges for other academic staff who may not necessarily have the capacity to engage with employers for different purposes and levels. The participants perceived that the providers can be slow to respond to the business needs and the 'inflexibility' of providers to adopt innovative approaches to best address the requirements of businesses acts as a strong inhibitor in developing employer-HE collaborations.

The biggest barrier I've seen is speed. So businesses want to move forward really quickly and academia works at a much slower pace. And I've found that businesses were becoming increasingly frustrated, saying 'we need someone to come in, a student plus an academic, to help us with this business challenge. We need a solution within six months. And yet three months have passed and we haven't got past the filling in the form stage and we haven't found an academic with suitable skills' etc etc. (Participant 4)

One of the limitations of college based HE is that colleges do not offer their own awards. Colleges either deliver qualifications of external awarding bodies or work in partnership with universities for validation of awards. The lack of Degree awarding powers (DAP) for colleges can limit the speed of response that the colleges can offer.

One of the criticisms of vocational learning is also viewed to be a narrow focus on the curriculum and a lack of creative thinking by academics and students.

Modern businesses demand creativity and that is not embedded in the curriculum or is not perceived to be a strength of academics themselves. It was argued that views of academics are largely guided by their own experiences that often lack real life business practice, which is combined with their educational experiences that are often theoretical rather than vocational.

Approaches to strengthening the collaborations (and recommended practice)

Providers, employers as well as students have a role to play in helping to develop strong and strategic collaborations. Employers prefer to work with providers 'with the right attitude'. Providers that are willing to engage with the employers, understand their needs, offer solutions to their business problems and requirements are the ones that are successful in developing strong relationships with the employers. Providers that can offer flexibility in the delivery of courses are successful in attracting the interest of employers as well as students.

Providers can assist in breaking the barriers in provider-HE collaborations by reducing any false perceptions about the perceived 'burdensome and complicated' nature of working with the providers. Providers can help in educating employers and informing them about the demands on employers' time, combined with the benefits these partnerships can present for all stakeholders involved.

Employer-provider collaborations can help address the gaps in skills required by helping graduates become better prepared for work. The participants asserted that work placements should be an essential component of all HVE programmes, and these may be for a year or less. Whilst the participants perceived that higher apprenticeships can be particularly valuable in offering dual learning opportunities, these have not been fully understood and adopted by the employers. It is perceived that the introduction of the apprenticeship levy may change the employers' understanding and attitudes of English employers.

Some specific examples were also highlighted that would be valuable for students as well as employers, for instance, employers could provide dissertation topics to students which will help them to conduct work focused research as part of their programmes. Another recommendation is to encourage students to become involved in real-life projects as part of the coursework and assessments throughout the programmes.

When they were doing group projects in computing degrees, for instance, that their clients are real businesses….. the whole point is that if the whole group actually have to go and face a real business person it's showing them what it's like in the real world and giving them a bit of responsibility, a grilling – and bringing the businesses and students together instead of them being in this box and not realising what the outside world want. (Participant 6)

In response to a criticism that academics are too detached from real life business situations, it was suggested that teachers and academics can benefit by undertaking some work experience placements within businesses that can add value to both the academics as well as employers. One of the participants shared that this idea had already generated some interest amongst HE providers and academics.

Similar to providers, a proactive approach and a commitment to working with the providers from employers helps foster and strengthen the relationships. Employers can be practically involved by offering work placements to students and they can become involved by delivering talks and seminars that may be focused on general employability or they can deliver lectures on specific subjects to enhance the classroom learning. Employers can offer site visits to the students to help them learn about the opportunities that may be available in their local areas. The advantages of such engagement are apparent to those who work with HE providers and therefore employers too need to adopt a receptive approach to working with academia.

It is essential for HE providers to take extra initiatives in building the necessary bridges to enhance employability throughout the life course of the student journey. From the point of early stages of commencing the programmes, students need to be made aware about the career prospects, preparing for interviews, effective communication and presentation skills and developing their attributes that can better prepare them for employment at the end of their studies.

Employer value continuity and prefer to work with providers that are proactive and demonstrate consistent and ongoing interest in working with the employers. Employer engagement units can play an important role in simplifying the system by having a named point of contact. Providers can facilitate interaction

with employers through attending business network meetings, hosting employer events, and through developing a cross-institution approach by involving academics as well as support staff to develop an institutional ethos of employer engagement.

Relationships that may have developed informally between academics and employers over a long period of time can be strong and stable with high levels of commitment from both parties involved, however, are often presented with a shortcoming that these relationships are largely between individuals rather than between organisations. Such relationships can be subject to volatility and can weaken or cease subject to a change in personnel on either side. One of the approaches of improving such instabilities is through formalising the relationships and engaging more staff from both the employers and providers side to improve the life of these relationships. Formalising the relationships can also be achieved through a commitment from senior management and involving academics as well as business development teams during these interactions.

I suppose it's better to have a forum than a one-to-one relationship. It is good to have those one-to-one relationships but, as you say, the pitfall is, if you left, that relationship would disappear overnight. Actually having contact with a panel of people would be better. (Participant 4)

A commitment from the senior management is imperative as in the absence of such steer, employer engagement is not viewed to be a serious part of the institution's culture. Employer engagement cannot solely be achieved through a 'push' from the senior management, unless if there is a 'buy-in' from academic as well as non-academic staff at different levels across the institution. Employer needs can be best met if the providers can adopt an inter-disciplinary approach which demands working across different subject areas and schools/faculties.

It's embedded as a cultural approach. Everyone that I've met in the faculties across the institution see it as a duty and responsibility to the students to make sure that those relationships with industry exist, and that they're giving them the education that will enable them to move into employment – and develop the employability skills as well. ….a very private sector approach, which works well with the business community. (Participant 3)

Students can play a crucial role in triggering as well as strengthening relationships between the 'strategic triangle'. Students can act as ambassadors in initiating as well as strengthening relationships between employers and providers.

Obviously they are ambassadors for it, and they've all been really good. But if we had four people in the office and they were all rubbish, actually, that might make us worry a little bit. As long as they do well it'll make us want to do it more and more. We see the benefit to them; we see the benefit to us, so why not do it again (Participant 2)

Lastly, one of the approaches of developing strong and meaningful collaborations between employers, students and providers is through an effective management of stakeholder expectations. Students need to be made aware of employer expectations at the workplace, and raise their awareness on the prospects of working with SMEs that are more realistic than working with blue-chip companies. Alumni can play a crucial role in raising such awareness for existing students. Employers require to attune their expectations from graduates and the need to invest in training where required. Providers have a tremendous role to play in raising awareness and understanding the expectations of both for the employers as well as students.

1.5.2 FOCUS GROUP - PROVIDERS

This section presents a summary of findings from a focus group discussion with providers of Higher Vocational Education. Seven participants from different colleges took part in the discussion. They held varied job titles such as Vice Principal, Head of Studies, Directors/Deans of HE, but broadly were responsible for HE provision at their colleges. The discussion was approximately of one hour and 30 minutes in duration and the discussion was digitally recorded and transcribed subsequently. This discussion was conducted after the employer discussion and hence presented some opportunities for triangulation of data.

HVE programmes and employer needs
The participants perceived that demand for HVE programmes was largely driven by the career prospects and opportunities available to students post-completion of their studies. HVE was also associated with part time learning as HVE programmes at the participants'

institutions were not delivered as conventional full time courses. It was asserted that students tend to study HVE courses predominantly for 'extrinsic' reasons.

Gone are the days when people just came and did that [a degree] for pleasure. We used to have one called Culture, Mind and Modernity, and when those staff left we didn't carry that on. Now the 'customers' are very demanding – what will the job be when I finish this, and it changes the focus. (Participant 1)

There was further consensus on certain types of qualifications that have retained their position and value in the labour market and are perceived to be better placed in meeting the needs of the labour market when compared with other qualifications. For instance, Higher National qualifications are considered to be better placed in meeting the needs of the employers within the Engineering sector whereas Foundation degrees are perceived to lack such credibility.

Similar to the employers, this group also acknowledged the significance of 'soft skills' in preparing students for work. Apprenticeships were rated to be an important form of higher vocational learning. Apprenticeship frameworks in England include competencies that focus on personal development, behaviour and welfare. A positive and right attitude was recognised to be important in enhancing employability, and it was interpreted to incorporate different competencies such as flexibility and effective communication.

It's about flexibility, it's about communication, it's about resilience. It's about taking responsibility but then recognising where your limits lie and not trying to take too much on – and then trying to communicate that. It's about effective working relationships, talking with people, smiling, a positive 'can do' attitude. (Participant 4)

Work related learning and its relevance
Work related learning is very helpful in supporting the students to build connections between theory and practice. The participants reinforced that the relevance of work related learning sits at the heart of vocational education and is an important aspect of HVE.

Work related learning is not only important for full time young students who do not have the necessary work experience and are new entrants to the labour market, but also for mature and part time students who may already be in employment, however, not necessarily in an area related to their programme of study. Part time students can often by funded and supported by their employers for up-skilling or re-skilling purposes and it is imperative that students can relate their learning to their workplace.

And people have to see that these are credible courses, so if they are working in the industry and it doesn't match in the classroom then the credibility is diminished. It wouldn't be acceptable. (Participant 6)

Certain programmes at colleges have a significant element of work placement and the students spend relatively less time at the colleges. Work placements are simpler to arrange for programmes such as Foundation degree in childcare, however it is challenging to provide work placement for programmes, such as, Foundation degree in prisons and law enforcement. For work based learning modules that bear credits for learning in the workplace, students may be expected to find suitable placements however, in instances where students are unable to secure suitable placements, providers can be responsible for assisting students in finding relevant work placements. In other words, work placement options may not be readily available for all HVE programmes and the challenges in securing suitable placements may sometimes outweigh the benefits.

Whilst the participants emphasised that the work focus is important, it can lead to a narrow focus on jobs rather than wider learning that offers a range of skills that are transferable and relevant to broader career prospects. Distinctions were drawn between training needs of employers and educational needs of students.

It's that balance between the different employers. So it's not just a training need that we're fulfilling, but …there is a balance in preparing for the future, which might not be with that specific company but there's a skills need that might develop and change over the length of their employment. So, are we making sure that we've got an eye on the future and their adaptability, and their ability to be flexible and be resilient going forward. (Participant 2)

Benefits of collaboration
A wide range of benefits of collaborations between the employers and providers were identified by the group. In line with the findings from the employers' discussion (above), collaborations assist the providers to maintain the relevance and currency of the curriculum. As providers of both further and higher education, FE colleges are well positioned to understand the sector needs at all levels- further and higher.

Colleges offer a wide range of programmes and working in close collaboration with employers helps to deliver a suite of programmes ranging from different levels, and from short training to full qualifications. Colleges view themselves as providers of vocational education and links with the industry are crucial for colleges to offer provision that meets the needs of the industry.

It's fair to say that within our sector of HE within FE, we do concentrate more on vocational qualifications with a clear progression into employment – or further study. The choice of subjects is such that we don't have many of the fundamental study subject areas; it's all vocational and, as such, it's natural that you need to line up with industry requirements. (Participant 5)

Participants' perceptions on benefits largely resonated with those identified by the employers (above). Collaborations with employers enable providers to provide work placements to students as part of their studies, offer job opportunities post-completion of studies, and enhance employability of students by increasing their awareness of the industry. Working with the employers enables colleges to understand the needs of the employers and respond to the local and regional needs. Working in partnership with employers is also advantageous for teaching staff who can keep their knowledge updated and engage in two way knowledge transfer between industry and academia.

Providers can benefit from maintaining relationships with former students as alumni can draw on their own experiences and offer real-life examples to students. Alumni engagement can be meritorious in developing soft skills in students. Part time students or those in placements can immensely enrich the learning that takes place in the classroom.

…when you're teaching and working with students who have been on placement or are in placement, they can bring so much more to the teaching and learning [murmurs of agreement] – it's really valuable because they can start to relate things much more widely. You can really see the value of them engaging with employers in whatever way – if it's on a placement or it's a live brief. (Participant 4)

Nature of collaborations

HE providers tend to collaborate with a range of employers including large and macro sized enterprises as well as SMEs. The number of collaborations with employers varies for individual colleges and type of employers can vary based on the region in which the provider operates. However, in general terms, colleges work in partnership with a wide range of SMEs and there are fewer large employers that the colleges collaborate with. As noted in previous section, this discussion mirrored that working with SMEs presents a range of challenges as the needs of SMEs can be diverse and SMEs cannot offer economies of scale.

There was a discussion with employers about suites of pathways; it's totally impractical because you've got a group of students, say two or three, wanting to do aeronautical and then you've got 15 to 20 doing mechanical – but they want this, that or the other. That had to stop…. What we've got now is agreement from various small and medium-sized enterprises, and the larger ones, within the same subject area, who understand there's a general number of units that will be responsive to their actual needs. It's across the patch and we might offer one or two other things – but not 20…. (Participant 3)

In addition to the differences in the nature of collaborations and the number of partnerships that individual providers can maintain with multiple employers, there are variations in the level of engagement that each employer has with the HVE provider. In a number of cases, the 'relationship' between the HVE provider and the employer can be fairly superficial in that employers are approached by

the college for 'selling' the provision and businesses may 'choose' a particular programme suitable for their current needs. This relationship may be limited to a one time engagement and may not lead to any future collaborations.

As businesses in their own right, participants believed that 'sales and business development' at colleges is a fundamental aspect of building relationships with the employers. In addition to simple 'selling', it was argued that providers could assist employers with a training needs analysis and owing to a wide range of provision offered by colleges, it was possible for colleges to offer provision that best met their training needs. Engagement in such format could yield longer term strategic partnerships between employers and HVE providers.

Further distinctions were also drawn between 'deeper' involvement and engagement of employers in the design and development of curriculum, which was further deepened when employers were engaged in teaching and assessment. Participants highlighted that as part of some programmes, students are provided mentors at the workplace however their engagement in assessment tends to remain limited.

…no, they [employers] don't make summative assessment decisions because it opens up a whole can of worms about their training, their academic understanding etc. So that's the stock answer to a QAA question of that nature. (Participant 4)

Barriers in collaboration

There are several barriers in employer engagement and there are practical considerations faced by HE providers in forging deeper relationships with employers. The discussion featured some of the approaches adopted by the HE providers and the challenges associated with them. All participants shared that their institutions host events and organise employer forums to facilitate a dialogue with the employers, however, these are not always well attended. It is a challenge to attract a sizeable group of employers to attend events at any particular time. Employers are constrained by resources- which includes both time and money and do not view such engagements as a priority.

Similar to employers, providers are also restricted in the investment they make in working with the employers. Some colleges invest in designated business development teams and a formal structure for engaging with employers whereas others do not have staff that have formal responsibilities for employer engagement. The absence of a dedicated employer engagement unit can act as a barrier as 'employer engagement' becomes 'nobody's real job'. However, there are also challenges associated with aggressive 'selling' and uninformed sales and business development personnel. Employer engagement officers that do not have an adequate understanding of the provision risk 'mis-selling' the provision to employers.

There was further consensus that employer engagement teams cannot deliver the results without the involvement of teaching staff. Some staff can be very keen to engage with employers, however, a majority do not view it as part of their practice. Whilst involvement of academics was noted to be crucial, the nature of teaching staff and very limited allowance for non-teaching activities restricts the engagement of tutors in engaging with employers.

Providers that do have a centralised resource to commit to employer engagement can mean employer engagement activities can be very localised which can inhibit cross-faculty functioning. Employer contacts may not get shared and encourages unhealthy competition between faculties. Furthermore, the same employer may be approached by different teams across the college which may be a poor use of college resource as well as unwelcome by the employer. Creation and maintenance of centralised databases can also be a challenge for colleges. Colleges operate in an environment of constant change and cuts in funding. This often leads to internal restructuring and in the absence of a commitment from the senior management, some job roles may lack stability. Lack of formal processes and structures for employer engagement is unhelpful developing an employer facing ethos.

We did have a centralised database at some point, and there was a massive initiative to implement it fully and make it work. But, after a while, it got filled up with 'who's been where, who's contacted who, who's discussed what with whom', and you find out it is not completed consistently to make it work. It only takes one restructuring of one department and then it goes. In fact, that person who was behind the project is no longer with us so nobody's mentioned anything. (Participant 5)

Providers can be limited in their offer and 'off the shelf' provision does not attract employers as it is generic and fails to address their specific needs. However, it can be a challenge for providers to be responsive and deliver bespoke provision unless if there are returns on investment in the short or the longer term. Colleges operate as 'businesses' and conduct a cost-benefit analysis to ensure a return on their investment.

But it's about growing the community and employer confidence in our institution so that we can respond quickly by having a market-driven model rather than a project-driven model, because nobody is going to want products on the shelf, they want products designed for their particular organisation. (Participant 7)

Associated with the 'bespokeness' of the provision is the swiftness and promptness required in adapting the curriculum to meet the needs of the employers. Participants recognised that the slow response to business needs and inflexibility is a barrier, however, providers are constrained with the re-validation of modules and re-design of qualifications more so because colleges do not award their own qualifications. The awards are externally validated by universities or are external awards. Providers plan their offer in a cyclical fashion and the provision is agreed up to two years in advance of the actual delivery. Therefore, changes at a short notice are challenging to be incorporated into the curriculum.

I think it's realism from the employers that if they want something that is a qualification to a particular framework, there is a quality assurance element to that. If they want a one-day training course, we can respond very differently and be a lot more flexible. There are also the constraints of wanting something for free, so then you're trying to think 'from my products I can give you an apprenticeship that the government is saying is free – but I can't give you an HE qualification'. (Participant 2)

Approaches to strengthening the collaborations (and recommended practice)

A proactive approach to employer engagement is a pre-requisite for successful partnerships between employers and HE providers. An institution wide ethos of recognising the significance of employer engagement and developing multiple approaches to fostering links with employers and strengthening them is vital for effective collaborations between employers and providers. Gaining employer confidence helps gain 'repeat business' and increases the likelihood that employers would approach the providers and engage in alternative areas.

Colleges can benefit from a centralised system of employer engagement which involves a formal employer engagement unit taking charge of employer liaisons and centralising any disparate records of employer contacts. An effective CRM system can also help avoid any duplication of contacts made to the same employers by different units across the college, which can minimise any duplication of resource.

...if an FE programme leader contacted an employer about an FE student placement, an HE programme leader might be contacting them [as well] – which we know is poor practice. We need to bring that together. We've got a business development unit and they are leading on bringing together the different areas of the college that are contacting employers – and maybe five people are pestering the same employer on one day and nobody's talking. (Participant 1)

Employers are more likely to engage with the providers if they don't simply 'sell' the provision but can assist the employers with their training needs analysis. Business development officers or sales personnel may not have the necessary training to assist employers with such functions. Therefore, the providers could offer relevant training to the business development staff to assist them staff in engaging with the employers.

Employer engagement unit facilitates a dialogue between employers and providers because it acts a central hub, however, that alone is not adequate because business development people are not responsible for the teaching and delivery. A commitment and understanding from academic staff is very important as is the engagement of senior management. All staff academic as well as support, can benefit from some CPD on encouraging them to think

and reflect on their roles and the contributions they can offer in becoming more employer facing. A need for a bottom-up approach was identified by the participants with a recognition that it cannot be accomplished without a commitment and steer from the senior management. Hence, an institution wide approach is required to foster successful relationships between employers and providers.

It's more the bottom-up approach; it's those individual contacts with tutors, however they deliver whether it's through a sabbatical or a five-day period with them or from their previous experience – that's where it really works effectively. They might need some kind of super structure in place so that it all hangs together for health and safety purposes or customer relationship management purposes, but I think the strength lies from the ground up. (Participant 4)

HE providers also need to use labour market data effectively. One participant shared that her college used the LEP priorities as an indicator of local skills needs and used the regional and regeneration data to identify any key priorities. These were matched against the national skills needs and more importantly the needs of the local employers as understood by the college staff through their formal and informal relationships with the employers.

It was also recommended that colleges need to recruit teachers who have active links with the industry and offer continuous support so that these links can be maintained. One of the approaches to ensuring that the curriculum is better aligned to the needs of the labour market and the graduates are sensitive to the needs of employers is through offering short term or long term sabbaticals for tutors, so that they could be freed up from teaching for some time and foster loser links with the industry.

Assessors who are out in the industry, guest speakers who come in and tutors as well, hearing what's going on. That deeper employer engagement is a two-way thing and helps, to some extent anyway, to keep tutors current.

...Our tutors are allowed 10 days a year to go out into industry to keep their currency up as part of their staff development. (Participant 4)

The participants recommended that HE providers need to offer flexible models of delivery to meet the needs of employers as well as the learners. Equally important is the need to adopt innovative approaches to teaching and learning, such as, problem based learning to help students prepare for real life work situations.

We are very heavily engaged with the Fit Learning approach, and that means that you're still delivering the same thing but maybe in a slightly different way, [using] a different approach where you are a facilitator... So we need to step back: we still need to deliver the curriculum but it's how you introduce it, and if you introduce it through problem-based learning they see the problem, they're eager to solve it and they recognise the need to learn this particular tool that will help them in resolving it. (Participant 5)

Flexibility is also recommended in the size and content of delivery as employers may not necessarily be interested in full qualifications. They may seek CPD and byte sized training that relates more closely to their workforce needs and costs significantly lesser than full HE qualifications. Employers can often also be interested in unaccredited training with no qualifications associated with the learning.

[Company] has just contacted us about doing some bespoke upskilling for mechanical engineering. They don't want a qualification, they don't want to give their employees a qualification, and there's 'X' number of them. ...It's happening more often. We were approached by local authorities the year before last and they wanted to upskill people who deal with building service engineering and construction, and it was a particular element that we deliver as one unit in HNC or HND. The local authorities got together because all the people they had working in those departments needed upskilling and they saw it as a way of actually delivering CPD to them. (Participant 3)

One of the crucial aspects of managing relationships and delivering positive outcomes for all stakeholders involved is through managing expectations. Unrealistic expectations of employers from newer graduates as well as those of graduates from the employers can lead to dissatisfaction amongst employers as well as students. Providers can play a key role in communicating and raising awareness of what realistically can employers expect from the graduates and vice versa.

...employers expect graduates to be the finished product; they are not. They're on that journey and, just as you've said there, it's about them developing that experience. (Participant 4)

As noted in the employers' discussion, informal one to one relationships and personal contacts often tend to develop into longer term and deeper relationships. Word of mouth or former background of the academics in the industry are extremely valuable in developing relationships.

Where it works quite well in our institution is where it's more informal in a particular academic area. It's colleagues that people know through word of mouth and socially, or previous employment in that sector, or by having worked in that industry and come into education; that seems to work better than somebody going out cold and looking for employer engagement.. (Participant 1)

Student-provider relationships are also a crucial component of the strategic triangle. It is therefore important that the providers engage meaningfully with the students and gather necessary feedback from students as well as from employers. Gathering feedback from students can also act as an indirect mechanism to receive feedback from employers when employers fund the students for their HE studies.

As direct beneficiaries, students as recent graduates or an employee supported by the employers for up-skilling or re-skilling purposes, are effectively the ambassadors of collaborations between employers and providers. If a student can add value and 'make a difference' at the workplace, employers are likely to have richer confidence in the HE providers, which in turn can help foster deeper relationships between the providers and employers. Positive feedback from employees (as part time students) can help with 'repeat purchase' and employers may commit to future training and investment if they receive 'value for money'.

1.5.3 FOCUS GROUP - STUDENTS

This section presents a summary of findings from a focus group discussion with students studying on HVE programmes. Seven participants from a college took part in the discussion. These students were studying different programmes ranging from construction, healthcare, business studies, and computing. These students were studying on a part time basis and with an exception of one, all were funded by their employers for their studies. The discussion lasted approximately one hour and 25 minutes in duration and was digitally recorded and transcribed subsequently. This discussion was conducted after the employer and provider discussions and hence presented some opportunities for triangulation of data.

Student choice and intended outcomes
Participant's choices to study HVE courses were driven largely by instrumental reasons and they believed that studying their chosen programmes would help them to progress in their careers. Whilst some students were studying on courses that had direct relevance to their workplace, for others, this was a means to enter into their preferred careers. For instance, one of the participants from a large construction company was funded by his employer and his programme was directly related to his role, while another participant who was a part time student but also a member of staff at the college was supported by the college to study a programme of his choice that was not related to his job role. However, in general terms, the participants were supported by their employers to pursue programmes that could bring direct benefits to the workplace. The anticipated career progression outcomes included promotion opportunities with the same employer or elsewhere. Studying the programmes also offered opportunities the participants to progress to study further.

The course is enabling me to do my job better, and hopefully having those higher-level skills will open up new opportunities as well – either here at the college or maybe self-employment opportunities. (Participant 4)

In addition to instrumental reasons, students also chose to study at a higher level for 'intrinsic' reasons. One participant chose to study a higher level course because she was the first in her family to study higher education and 'wanted to prove that she could do it'.
The choice of the institution was largely driven by the convenient location of the college as well as the links

between the employers and the provider. As mature students with full time jobs, the participants wanted to study on a part time basis and the location of the college near home or work was a crucial factor in their decision making. Equally significant was the funding and support from the employers who worked in partnership with the college and sponsored students to undertake particular courses at the college. For instance, students were not offered any choice because the college was the only provider that had arrangements with the employer in that region.

Student choice not only relates to the choice of course but also to type of institution. HVE is delivered by FE colleges in England, however, preferences to study HE at a university are also prevalent. Whilst for most participants, studying at the college was no different to studying at a university, one participant was keen to progress to a university for her top-up final year for her degree to experience 'HE at a university'.

Although being funded by the employer can be hugely influential in students' decision making, some students may prefer not to be funded by the employer and choose to self-fund their studies. This can offer a greater degree of freedom to students in terms of choice of the programmes as well as the practical and work based aspect of the curriculum. Studying higher education without the employers' support can also offer a greater degree of control over their choices post-completion of the studies as employers can place contractual obligations for those switching jobs.

There's a learning contract we sign that says we have to stay for a certain amount of time after we finish our course. It's two years and there's a buy out clause, which is your final year's tuition fees. (Participant 1)

As noted in the findings from the employers' discussion (above), the participants shared that their employers use different models of recruitment- graduates are recruited alongside trainees however the perceived advantage of recruiting trainees and supporting them for higher level studies is that the trainees can be moulded and adapted to the job roles. Whereas graduates are recruited at higher salaries and are perceived to be more 'set in their ways'.

Types of employers and relationships
Students can be employed with SMEs who tend to support and fund fewer students which is attributed to their small size. The local remit and often operating as single sited organisations, SMEs tend to have relationships only with the local HE providers. On the other hand, large employers that operate from multiple sites can have relationships with multiple providers and support a larger number of students to study on different types of programmes with further progression opportunities to study at higher levels.

Larger employers can offer a bigger and consistent supply of students which means that the programmes can be primarily designed and offered to meet the specific needs of the employer. For instance, the National Health Service funded large cohorts of students each year at the college to train and up-skill its employees. Other large employers also sponsored some students each year on a Construction Studies programme. In such cases, the college was the preferred provider and the employers had long-standing relationships with the college.

My company has been working closely with this college in particular for years and years now, and they normally take on one or two trainees a year and send them on the same course at the college – and have done for as long as I can remember. I think it's to do with our chief executive having a relationship with the college. (Participant 1)

Employer demand not only underpinned the delivery of specific programmes at the college, it steered the college to expand the delivery at higher levels. For instance, the college expanded its provision by offering the top-up year for the Honours degree at level 6 and a HND at level 5 to provide progression routes for students.

Benefits of collaboration

Several benefits of collaborations between HE providers and employers were highlighted during the discussion. These mirrored those noted in the previous sections. Partnerships between HE providers and employers were noted to help improve the employment outcomes for students. On the one hand, full time students can benefit from studying courses that meet the industry demands, part time students have opportunities to link theories with practice by drawing on their learning and taking it to their workplace and vice versa.

Learning that is directly relevant to the workplace facilitates a transfer of knowledge, however, even in cases where there may not be a direct benefit to the workplace, employees can take broader skills and soft skills back to the workplace.

A lot of the assignments and the work that we're doing, we're encouraged to link it to our practice. So it's looking at what is current practice and how what we're learning can improve our current practice. We're taught to question things; just because something has been done in the NHS for years, why has it been done? So we do look at research and we're encouraged to go into things at a far deeper level than we ever have. So, why you would put a particular dressing on someone's leg opposed to another one? That sort of thing. The practical element is in there. (Participant 2)

Supporting employees for studies can help gain their loyalty and secure a more stable workforce. One of the participants who received substantial support from her employer including funding for her tuition fee, her books and equipment and her travel was very passionate about her role and wanted to stay with her current employer for a long period of time. Another participant confirmed that trainees at his company had stayed with the employer for a considerable period of time. While a causal relationship cannot established to confirm that employees stay because they were supported by their employers, it appears that employer support can contribute towards securing a stable workforce.

Employer engagement is particularly beneficial to help maintain the currency of the programmes. Continuous inputs from the employers helps to keep the curriculum updated and relevant to the industry needs.

The benefit of that is that it keeps the programme current. Because you have a programme and then 10 years later you're told by QAA that you need to review it. Whereas if we had that added involvement year on year, employers could suggest changes and you could make minor tweaks to modules, and it would keep it current rather than looking back at a course and thinking it hasn't been looked at for 15 years. (Participant 7)

Whilst HVE programmes were noted to be beneficial for employers as well as for students, as highlighted in the discussion with HE providers (above), a shortcoming of these programmes was also noted. HVE programmes with a specialist focus were known to have a narrow focus and inadequate in preparing students more broadly for work.

Some of the courses can be very, very focused on one area. Even though I'll come out of this with a degree, I couldn't go into business because it's just healthcare. Sometimes it's a bit too [niche]. (Participant 6)

Barriers in collaboration
It is common knowledge that despite the known benefits for all stakeholders involved, employer engagement with HVE providers remains limited in practice. Very few employers actually work in partnership with HE providers and invest the time and resource in working collaboratively with the educational institutions. This is partially attributed to a lack of recognition of the short term and longer term benefits that such collaborations can present to the businesses.

Limited awareness amongst employers of the level of commitment and resource required to work in partnership with HE providers can pose as a barrier. Providers are not necessarily proactive in engaging with the employers and awareness raising and communications are the first steps that providers often fail to implement.

Employers may not be aware that they can have some sort of input or connection, or if they are aware they might not know who to contact. …. it depends on whether people are proactive and want to help or, when they do want to help, where they go. Or they wait for someone to approach them. (Participant 3)

Committing time and resource can act as a barrier not only from the employer's perspective but from the providers' as well. HE institutions do not prioritise employer engagement and academics are not freed up to develop links with employers. As noted previously, academics and support staff do not otherwise view employer engagement as part of their job roles.

My perception, within the admin office, is that it's a big deal to engage with employers. From a lecturer's point of view, they get paid to stand at the front of the class and that's what they do regardless of whether there's an employer involved or not. (Participant 7)

Similar to the concerns voiced in the previous two discussions, student participants also believed that an absence of a dedicated unit that offers a single point of contact can act as an inhibitor in establishing swift and smooth connections between employers and HE providers. Furthermore, an absence of employer engagement with academics can affect the knowledge and updated-ness of academics. Keeping the curriculum relevant is a particular challenge for academics who teach subjects such as Game Design in IT where the tutors' knowledge can become out of date very quickly.

Even something that you'll work on at the start of the year, in September, sometimes by March/April something else has been released that completely changes it. You've got to constantly stay in the loop. The staff, the tutors do a very good job of that anyway, but it's so quick changing. (Participant 5)

A further barrier was noted to be the threshold number of students that are required by the providers for the successful delivery of a programme. There can be instances where the employer cannot commit to supporting the required minimum number of students. In some instances, the HE provider may not be aware whether this threshold will be reached and the programme may be cancelled at a brief notice as the delivery may not be financially viable. This can lead to confusion on whether the programme will be delivered and can be a challenge for the providers, employers as well as the students.

I could've done it a lot quicker! We kept being told that the course was running because it ran in the past, and then no it wasn't running and then suddenly it was. (Participant 2)

Placing the employees on a programme may not be adequate to facilitate any real knowledge transfer between classroom and workplace. In instances where employer engagement is low and the employer does not have a clear understanding of the programme, the learning experiences for the students and the benefits for the company can be limited. For instance, for one participant who was funded by the employer there was low levels of awareness on the manner in which the students' knowledge could be used at the workplace because company managers were not aware of the precise course content.

The skills that we're learning are very transferable into the workplace but I've found that, on a local level, people aren't actually aware what we're learning on the course. It was a company-wide recruitment programme and it hasn't fed down to a local level as to what we're actually doing on the course. Although they'll say it's brilliant, they're also saying – 'we didn't know you studied that!' They're seeing the benefit of it but they're still not totally aware what we're doing. (Participant 2)

Other challenges were also highlighted that related to the relationships between the students and the HVE providers. For instance, poor careers advice and guidance can affect the understanding and perceptions of students about career prospects and can be detrimental in preparing students for work. Programmes that have restricted or no involvement of employers in curriculum design and present no opportunities for real-life projects are likely to result in poor employment outcomes for students.

A lack of understanding of the demands that HVE programmes place on students can lead to high drop-out rates. Students may find the workloads challenging and demanding and this may be exacerbated by a lack of additional support from the employers and providers.

They've said it's the workload. The workload is astronomical. I've got four assignments at the moment; I had one that was set a couple of weeks ago and it's due in this week. It's so in-depth. (Participant 6)

We talk about going to the library and doing things, but we don't have the opportunity to do that unless you take annual leave. Even to come here today I've had to take a day's annual leave because my employer wouldn't let me come. I'm a student representative for our group and if I want to come down for that they take the time back. I'm not supported. (Participant 2)

The discussion highlighted that both the educational providers as well the employers can be less sensitive towards the needs of part time students. Whilst the employers may pay the tuition fee for the course, they may not offer any study time to the students and the HE provider may also overlook the needs of mature and part-time students who may require additional support as they may not have recognised the academic challenge that the HE programmes may present.

From a college perspective, students that are from an employer are not seen as a student with an employer – it's just a student. It's the same as everyone else. They come into sessions, do their lectures and then they leave, rather than the thought that the programme tutor needs to liaise with the employer. I don't think that staff feel they have to engage with the employer, because they are just a student. (Participant 7).

Approaches to strengthening the collaborations (and recommended practice)
Some of the better practice and approaches to overcoming the barriers in employer, HE provider and student collaborations were highlighted during the discussion. One of the key aspects of successful relationships was noted to be building trust. Relationships where the HE providers and providers trust each other are the ones where mutual benefits can be reaped on a longer term basis.

Flexible models of teaching and delivery can be very supportive in engaging employers as well as students. Rigidity in the location and times of teaching can deter employers to work with HE providers. The college delivered one of its programmes at an alternative location by renting facilities that were closer to the employer. Whilst this was possible because the employer had a sizeable number of students, for smaller cohorts this may not have been a financially viable option for the HE providers. The participants also had variable levels of contact time at the college. Students attended the college for one or two days of the week in order that it was least disruptive for the employers to release their staff to study.

In order to formalise and organise the employer engagement activities, the college had invested in a CRM system to centralise the information held by the college on employers. The college also formalised processes for gathering feedback from the employers and was aiming to develop this further. The college hosted focus groups with employers to discuss the content of the curriculum in detail and gather feedback. Networking events and breakfast meetings were also hosted with a focus on topics relevant to the industry that generated interest amongst the local employers to engage with the college.

Programmes that have relevant professional body accreditation can help ensure that the curriculum remains relevant and focussed to reflect the changing needs of the industry. The participants highlighted that it is good practice for employers to be engaged and involved in the actual teaching and delivery which not only helps the students to link theory with practice, and assists the teaching staff in keeping attuned to the industry requirements and changes but also raise employers awareness and knowledge of theories and the formal course content.

The NHS part of the programme is just delivered by our own tutors – but obviously agreed by the college….: They're mentors, people from workforce development, nurses: It would be the practical, hands-on part of the course rather than the theoretical side. (Participant 2)

Part time students in relevant employment can contribute towards keeping the curriculum updated. Openness of tutors in engaging with students can help them to facilitate an interaction and exchange of knowledge for other learners who may not be appropriately employed in the industry. Opportunities to work on real-life projects can be extremely valuable in preparing young full time students for the workplace.

We do a module in the first year and second year that is called a client-based brief module. So we will go out and the college will nominate a couple of clients – one of them was [Company] who are based in XX. You can go out and find your own as well. We run a project, then you can pitch an idea to them and say 'we can make an app for you, this would benefit you in this way'. They nearly always say that they're interested because you're doing it for free – they've got nothing to lose and they might as well let you develop the idea and see how it turns out. It builds those skills, especially pitching to business if you're going to go into your own business and you're going to go looking for work. (Participant 4)

Employers that offer fuller support to their employees for tuition fees, time release to attend their course combined with some support for study time can considerably enrich the learning experience for students. Likewise, providers can support part time students through flexible models of learning combined with additional support mechanisms to assist those who may be returning to education after a considerable period of time.

The discussion highlighted that students are an equally vital element of successful collaborations between industry and higher vocational education. Students can act as ambassadors and play a critical role in providing feedback both ways to the providers as well the employers. Students can help raise awareness of the programmes and opportunities for others more broadly who may not have an awareness of the options for studying HE.

I think feedback is a big one. If you've got an employer in your institution, you're the piggy in the middle. Feedback both ways. (Participant 7).

1.5.4 VALIDATION OF THE KEY FINDINGS FROM THE FOCUS GROUPS

As part of the agreed research approach, having analysed the data from the three focus groups, additional interviews were conducted to help validate/triangulate and enrich the findings from the focus groups. Specialist organisations were carefully chosen and experts were identified who were willing and able to inform the study. One to one interviews were conducted with representatives from the UK Commission for Employment and Skills (UKCES), the National Centre for Universities and Business (NCUB), Head of HE at a college offering HVE and PHE and national representatives from the National Union of Students.

Interviewees were broadly asked to identify barriers in collaborations between employers and HE providers and approaches to strengthening the collaborations. The interviewees largely concurred with the focus group participants and similar themes were identified from these additional 'validation' interviews. These interviews were valuable because they not only helped validate the findings from the focus groups but also highlighted some additional points on the subject. To minimise repetition, only the additional points that have not been captured in the previous sub-sections, are summarised below:

Higher Vocation Education

The interviewees highlighted that higher vocation education is a term that is not well recognised and has only appeared recently in the policy literature. Complexities in defining vocational HE and distinguishing it from general HE were also noted by the interviewees. Whilst a strong focus on work was

identified to be a crucial aspect of vocational HE, this form of HE was also distinguished on the basis of place of its delivery. FE colleges were noted to be the key providers of vocational HE in England.

"In this country, there is a very clear distinction between the academic route and the vocational route. A Bachelors' degree awarded by a university will normally be seen as academic rather than vocational, but for vocational, people will think of colleges providing levels 4, 5 and 6 or higher apprenticeships." (Interviewee 1, NCUB)

Employer engagement

Likewise, the concepts of employer engagement were debated and discussed by the interviewees and the different forms of employer engagement from short term and random collaborations to deeper and long term relationships were identified. It was argued that whilst large employers had the resources to commit to longer term relationships, SMEs may seek quicker benefits from their investments. However, working with SMEs was often problematic for providers as it meant significant engagement with multiple employers; and investment in new programmes only economically viable if enough students could be attracted. There were also issues related to recruiting up-to-date practitioners and possibly costs of training them to be proficient in a learning situation. Large employers were also perceived to collaborate with educational providers because this could help meet their Corporate Social Responsibility (CSR) objectives and they could invest in supporting their local educational providers as a charitable act with no or low expectations for return on their investment. However, at the same time, 'local' employers regardless of their size were perceived to be more deeply committed to working with educational providers in contrast with large national or international employers.

"Place plays a very important role in collaborations, a local employer is more deeply involved in working with local educational providers than if you a large national employer." (Interviewee 2, NCUB)

Employer engagement was also noted to vary based on the sectors. Employers in the Engineering and Health sectors were identified to be more engaged with the HE providers because of the practice based element of jobs in these sectors combined with the skills shortages in these areas. In such sectors there are also strong professionally-regulated qualifications which are mandatory to work in certain roles and are held in high

esteem by individuals and the recruiting organisations.

Barriers to collaboration

A majority of the barriers identified by the interviewees were the same as those noted in the focus groups discussions. The perceived 'inflexibility' of publicly-funded HE providers was explained on the basis of source of funding and their purpose.

"Private providers are very engaged with their clients, their job is to provide what the mainstream providers do not provide. The mainstream education providers and HVE providers will respond to their funders and businesses are not their funders, the society is their funder. Their masters are not the employers." (Interviewee 1, NCUB)

The interviewee also argued that 'inflexibility' was not simply a barrier in collaborations because the educational providers are 'inflexible', the 'inflexibility' of employers can also act as a barrier in developing relationships between employers and HE providers.

Employers were broadly categorised as those that have the resource and ability to collaborate with HE providers and they tend to collaborate with one or more HE providers; those that have the resource however choose not to engage; and those who could collaborate but do not feel equipped to deal with educational providers either because they do not have the resource or do not have the knowledge of working with providers; lastly, there are disaffected employers who have had a bad experience and choose not to work with HE providers.

Those who have had a previous bad experience of collaborating with any provider can be particularly disengaged. Whereas, those who do collaborate and actively participate in a number of initiatives can find this 'over-engagement' burdensome.

"There can also be an initiative fatigue amongst large employers, they get touched by so many government initiatives and they begin to resist being involved." (Interviewee 3, UKCES)

Some employers were also noted to find the experience of working with universities intimidating and discouraging because of 'language' used in academia and academics can experience that 'businesses and the academy speak different languages'. And therefore a need to 'translate' the business needs was noted as a

requisite for fostering relationships between employers and HE providers.

Private companies also tend to focus on skills for the job/task and do not always appreciate the need for theoretical learning; and this can sometimes lead to tensions between the two parties. Although strong, long-standing collaborations usually overcome such differences.

In response to the recommendations made during the focus group discussions on encouraging industry placements for academics, one interviewee commented that whilst the students would find the industry experience of their tutors beneficial, it is still not adequately valued within academia.

There is a lot of stigma for academics who do have industry experience within academia. It's still frowned upon as to why you ventured outside of academia when you should care about publications record and the tenure track." (Interviewee 2, NCUB)

Some of the findings from the focus group discussions around the need for 'soft skills' was contested by one of the interviewees. It was argued that whilst a perceived lack of soft skills dominated the discourse on employer engagement in the recent times, even simpler skills were found to be lacking in graduates and young people.

"I hear less about soft skills- team work, communications etc. I hear more about the basics- how to dress at work, to be on time, how to say hello to people…" (Interviewee 1, NCUB)

Competition amongst employers and a possible risk of losing their 'trade secrets' can inhibit employers to collaborate unless if they can operate on a 'one to one' basis with the HE provider and can assured that their company information will not be disclosed. Large employers who have unique selling propositions and do not wish to share their 'job specific' training tend to invest in 'in-house' training rather than collaborating with external providers.

Employers often do not want to share training, ~~particularly because~~ they do not wish to share their 'trade secrets'. (Interviewee 3, UKCES)

Strong collaborations

Interviewees characterised strong partnerships by their longevity, mutual benefits, and multiple relationships at different levels of the organisations that are involved in the collaborations. In addition to the significance of proactive-ness of academics to work with the industry noted by the focus group participants, labour market intelligence was also noted to be key to successful collaborations. Partnerships that involve social players, such as, local councils facilitate deeper and longer term relationships between HE providers and businesses. Professional bodies were also noted to offer valuable contributions in facilitating links between industry and higher education.

Professional bodies are an untapped source of help- they can act as a conduit between universities, graduates and employers, particularly in industries that are dominated by SMEs. (Interviewee 3, UKCES)

As noted in the focus group discussions, the introduction of degree apprenticeships and the employer levy were noted to help improve relationships between employers, providers and the learners.

"If you look at trailblazers, there is a great deal of enthusiasm amongst employers. If you can offer something tangible, they can have genuine influence. The levy will make more employers interested as they will pay, they will have more reasons to engage." (Interviewee 3, UKCES)

"Strong forms of employer engagement can be seen through degree apprenticeships. They have to get an employee dedicated to doing a course whereas other training is perhaps shorter term but an apprenticeship requires a commitment from both sides that extends over time not just six months and is sought by the employer and it requires commitment by the employer and the student and the HE provider." (Interviewee 1, NCUB)

1.5.5 CONCLUSION

HVE is not a concept that has strong societal or political purchase in England; and the present policy direction is to use the term technical education as a replacement. Verification respondents' view that HVE is often associated with HE offered in colleges indicates that place of delivery or type of provider is as important in delineating HVE as other factors such as qualification type, level and teaching and learning methods.

The respondents also perceived employer engagement as problematic, especially with SMEs. On the other hand, they recognised that large employers were often less committed to local HVE provision in contrast to small local employers who were more firmly situated in a locality and therefore more committed to local providers. This chimes with the previous comments about HVE being associated with more local providers committed to their localities such as colleges.

On a more speculative note: is it the case that in England HVE, traditionally delivered by colleges and polytechnics previously controlled by local municipalities and with mainly locally-based students, is still viewed in this 'localism beam' even with the significant expansion of nationally focussed universities offering HVE in the past twenty five years?

Those sectors such as engineering and health and social care with high professionally regulated workforces were also identified by the respondents as successfully encouraging positive engagement.

Barriers to collaboration mainly reflected the focus group discussions with a stress on problems related to flexibility – from both sides; and capacity issues and knowledge/competency in collaborative endeavours. Issues related to academic/educational language and stress on theory by educationalists surfaced; and employers also stressed the importance of soft and basic skills such as punctuality not featuring enough in educational programmes.

Teachers lack of commercial/industrial experience and the wariness of divulging 'trade secrets' in multi-organisational projects were also quoted.

As revealed in the focus groups strong collaborations were characterised by their longevity, mutual benefits and multiple relationships at different levels of the

organisations. Involvement by local social partners and professional bodies could also be beneficial.

And there was general agreement that the introduction of the training levy on large companies in 2017 could be a powerful factor in bringing together employers and providers.

Overall, although differences in emphasis and nuance comments from the verifiers broadly confirmed the results of the three focus groups.

CHAPTER 2

CONTEXT OF COLLABORATION IN HVET IN FLANDERS

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**ARTESIS PLANTIJN
HOGESCHOOL ANTWERPEN**

2.1 WHAT IS HVET/PHE IN FLANDERS

2.1.1 BACKGROUND AND POLICY CONTEXT TO HIGHER EDUCATION

Flanders as an autonomous region in Belgium
Belgium is a federal union with 3 regions and 3 communities, each with their own parliament and government. The three regions are: the Flemish Region, the Walloon Region and the Brussels-Capital Region. The three communities are: the Flemish Community, the French Community and the German-speaking Community. Next to the communities and regions, there are also four language areas, namely the Dutch, French, German and bilingual (Brussels Capital) language area. The only official language of the Flemish Community is Dutch, which is also the teaching language.
Since 1989, the three communities have acquired full authority and competency for education. The Flemish Community is responsible for education in the Flemish Region and also for the Flemish institutions within the territory of the Brussels-Capital Region.

Source: Belgium-roots project on http://belgium.rootsweb. ancestry.com/bel/subdivisions.html

Each region sets up its own qualification structure, but an amendment to the Belgian federal law on general structure of the education system was adopted in 2012, stating that European Qualifications Framework (EQF) levels will be used as a common reference for the three communities in Belgium; this guarantees alignment and consistency between the level of education provided in the three Belgian communities. In the decree it is stated that the education is subdivided in the following levels:
• pre-primary education;
• primary education, in which European qualification level 1 can be obtained;
• secondary education, in which European qualification level 2, 3 and 4 or 5 can be obtained;
• higher education, in which European qualification level 5, 6, 7 and 8 can be obtained.
(Agency for quality assurance in Education and Training, 2014, p. 10-11; s.n., 2008, p.4)

Background & policy context
Flanders largely reshaped its higher education following the European developments in the framework of the Bologna Process: the Flemish decree on Higher Education of 4 April 2003 (and two relevant decrees of 2004) reorganised the structure of higher education at university colleges and universities with bachelor's, master's and doctoral degrees. The decrees also created one legal framework for university colleges and universities.

In 2009, the Flemish Parliament adopted the Act on the Flemish Qualifications Structure. The Act lays down, among other things, the qualifications framework with the level descriptors and the types of qualifications. 'The Flemish Qualifications Structure consists of eight levels and offers a classification of qualifications, recognised by the Government of Flanders. A qualification is a comprehensive and classified set of competences for which individuals can obtain a certificate recognised by the Government of Flanders.' (AKOV, 2013, p.3)
Flanders has two types of qualifications: professional qualifications and educational qualifications.
'A professional qualification is a comprehensive and classified set of competences allowing individuals to exercise a profession. Individuals can acquire qualifications via education or through a procedure of recognition of prior learning (RPL). A professional qualification is developed on the basis of a professional qualification dossier. The Competency database of

the Flanders Social and Economic Council (SERV or Sociaal-Economische Raad van Vlaanderen) is the primary reference framework.' (AKOV, 2013, p.3) The Department of Quality and Curriculum of the Agency for Higher Education, Adult Education, Qualifications and Scholarships (AHOVOKS; formerly AKOV) coordinates the development of professional qualification dossiers and organises their validation and classification.

'Educational qualifications are sets of competences allowing individuals to participate in society, start further studies and/or exercise professional activities. Educational qualifications can only be acquired through education. Educational qualifications of levels 1 to 5 consist of final objectives, specific final objectives and/ or recognised professional qualifications.' (AKOV, 2013, p.3) The Department of Quality and Curriculum of AHOVOKS 'develops proposals for educational qualifications at its own initiative or at any interested party's request. For educational qualifications from level 6 through to 8, the higher education institutions describe subject-specific learning outcomes for each training programme. The Accreditation Organisation of the Netherlands and Flanders (NVAO) submits the recognised qualifications and the associated subject-specific learning outcomes' to AHOVOKS. (AKOV, 2013, p.3)

The approval of the Flemish Qualifications Structure in 2009 and the subsequent decree of 2011 were important steps to align educational programmes, to develop assessments for the recognition of acquired competences and to actually assess the level of qualifications. 'The similarity between the EQF and Flemish Qualifications Frameworks is very clear. Both frameworks consist of 8 level descriptors, containing elements of knowledge, skills and competences.' (Agency for quality assurance in Education and Training, 2014, p. 38-39)

The situation for bachelor's and master's programmes was already regulated by decrees in 2003 and 2004 as mentioned above. In 2009, the Flemish Government launched Higher Vocational Education of level 5 (HBO5) as the missing step between level 4 (secondary education) and level 6 (bachelor's programmes). Education programmes organised by centres for adult education, and the Nursing programme organised as a fourth grade in secondary schools, were directly linked to level 5 of the Flemish Qualifications Structure or the Short Cycle within the European Higher Education

Area. The aim was to attune these programmes better to the needs of the labour market and to position them better.

Positioning HBO5 in the Short Cycle of higher education also affected its quality assurance system. It changed from the inspectorate (secondary education) to the system of quality assurance in higher education. Another consequence of linking HBO5 directly to the Flemish Qualifications Structure, was the tight connection of the programmes with the job competence profiles designed by the sector organisations under the coordination of Flanders' Social and Economic Council. The competences described in these profiles serve as minimum objectives in the associate degree programmes. (Flemish Public Administration, 2011, p.33)

In 2013, a new decree on the reinforcement of higher vocational education in Flanders was approved by the Flemish Parliament. According to this decree, all existing programmes that are currently estimated at level 5 need to be transformed, following the Flemish Qualifications Structure. To support this transformation, it was also regulated that, from September 2014, HBO5 programmes can only be offered by a cooperation of a university college and one or more centres for adult education and, optionally, one or more secondary schools (Nursing degree). Since then, the graduate diploma has become a degree which is awarded jointly by the university college and the centre for adult education or secondary school. (Vlaamse Regering, 2016, p.4)

In the coalition agreement of the current Flemish Government 2014-2019, the further development of HBO5 was included as follows: 'We elaborate HBO5 to become an integral part of higher education. We pay attention particularly to a good regional dispersion and the labour market orientation of the programmes in which learning and working are integrated.' In the concept note regarding the development of HBO5 for the Flemish Government, the Minister of Education argues as follows:

'The current offer (of level 5 programmes) is successful for adult learners and provides answers to the needs of lifelong learning through a fine-meshed dispersion and flexible organization. This is an asset that must be preserved. The potential of HBO5 for generation students is underutilized. It nevertheless offers excellent

opportunities: a broader entry to higher education (democratization), an increase of the study success thanks to a widening of the study options (orientation and re-orientation), and a possible flow from the HBO5 to the bachelor's programmes (salmon principle). The government will implement HBO5 on the basis of the following policy choices: a full student status for HBO5 students with the same access to student facilities and grants as other higher education students; a training offer that better reflects the rest of higher education but guarantees the uniqueness of the current range (workplace learning, granularity, flexibility); a structural embedding of the HBO5 programmes in the university colleges, with the take-over of expertise that now exists in the centres for adult education.' (Vlaamse Regering, 2016, p.3)

One of the priority conditions for the embedding of the HBO5 programmes in the university colleges is the transformation and updating of the existing range. This provides opportunities to eliminate the existing fragmentation and to meet more closely to the needs of the field of work (the transformation and updating is based on professional qualifications) and to the developments in education. In addition, new HBO5 programmes can arise when educational qualifications are developed at level 5 on the basis of professional qualifications which have no relation with existing programmes. (Vlaamse Regering, 2016, p.19-20) The government intends to finalize the regulatory framework for the implementation of HBO5 during this government term. A new decree, that has to be ready in 2018, will stipulate that all HBO5 programmes will become part of the university colleges with a transfer date not later than September 1, 2019. (Vlaamse Regering, 2016, p.22).

2.1.2 QUALIFICATIONS COMPRISING HVET/PHE

Flanders organises qualifications that comprise HVET/PHE on level 5, 6 and 7:

On level 5: 'Hoger beroepsonderwijs' (literally: 'Higher Vocational Education'), abbreviation 'HBO5'
HBO5 programmes, internationally also known as associate degrees, have a double finality. First and foremost, they provide for relatively short courses with a clear labour market orientation. At the same time these programmes can, in the spirit of the salmon principle, generate a new flow to the professional bachelor's

programmes. The HBO5 programmes can also deliver a contribution to close the gap between secondary and higher education.

On level 6: Bachelor's programmes
Flanders organises two kinds of bachelor's programmes. The first is Professional higher education. Professional higher education in Flanders is the umbrella term for professional bachelor's programmes, all organised by university colleges. These have the objective to bring students to a level of general and specific knowledge and competences required to perform a particular profession or group of professions independently. Preparing students for the labour market is the primary objective. A professionally oriented bachelor's programme can therefore lead directly to a place on the labour market. The second is academically-oriented bachelor's programmes, which are primarily oriented toward further studies at master's level. The main objective of the academically-oriented bachelor's programmes is to bring the students to a certain level of scientific or artistic knowledge and competences, required for scientific or artistic work in general. These programmes are also oriented towards a specific field of sciences or arts in particular and mainly geared towards further studies. Because these programmes are not oriented to the labour market, we don't count them in HVET. The academic bachelor's degrees that provide direct entry to a master's programme are clearly defined. (S.n., 2008, p.7)

Students with a bachelor's degree can also go for follow-up studies. For further in-depth-study, students can follow advanced bachelor's programmes ('bachelor na bachelor' – 'banaba') and postgraduate studies. These programmes aim at broadening of or specializing in competences acquired during the initial bachelor programme. A postgraduate programme leads to a certificate instead of a degree. Students who have a professional bachelor's degree can gain access to master's programmes subject to successful completion of what is referred to as a 'bridging programme' (45-90 ECTS). Students who have completed an academic bachelor's degree that doesn't provide direct access to the master's programme they wish to study, can be eligible for entry after completion of a preparatory programme. While the bridging programmes have an emphasis on research and academic competences, preparatory programmes have a focus on the subject specific/disciplinary content.

On level 7: Master's programmes
Master's programmes are offered by universities, except for art programmes that are organised at some university colleges. Master's degree studies have the objective to bring students to an advanced level of scientific or artistic knowledge and competences required for scientific or artistic work in general. These studies are oriented to a specific domain of sciences and arts in particular, which is required for autonomous scientific or artistic work or to apply this scientific or artistic knowledge independently in one or a group of professions. (S.n., 2008, p.8)
Students with a master's degree can choose for advanced master's programmes and for postgraduate studies. Advanced master's programmes ('master na master' – 'manama') are developed to further explore the knowledge and/or competences acquired within a particular area of study. Many of these programmes have vocational or more practical orientations. A postgraduate has the same goal as an advanced programme, namely specializing in a certain study area, but leads to a certificate instead of a degree.

2.1.3 PROVIDERS OF HVET/PHE

The Flemish higher-education system consists of statutory (officially) registered institutions and private registered institutions.

The officially registered institutions are institutions for higher education that were recognised by the authorities prior to 2004: mainly universities, university colleges and centres for adult education; also some religious institutions, graduate studies institutions and institutions for postgraduate studies in fine arts. All these institutions are listed in the Higher Education Register.

The private registered institutions for higher education are all the private institutions that have successfully completed a registration process and have been officially registered by the Flemish Government. Before the institutions themselves undergo registration, their programme(s) must first have passed the new programmes test in the NVAO accreditation process. Candidate institutions must also demonstrate that they are financially solvent and enter into a cooperation agreement with a university college or university, which guarantees that students can complete their studies at the university college or university should the private

institution cease to operate. Following a successful outcome of the accreditation process, the bachelor's and master's programmes of the private registered institutions are included in the Higher Education Register.

Providers of programmes and qualifications on level 5
Higher Vocational Education of level 5 (HBO5) is offered by partnerships of a university college and one or more centres for adult education (CVO) and optionally one or more secondary schools. The graduate degree is awarded jointly by the university college and the CVO or secondary school (in the case of nursing).

Providers of programmes and qualifications on level 6
University colleges in Flanders (2016) organise mainly professional bachelor's programmes. Some of the university colleges also have (a) school(s) of arts with art programmes on level 6 and 7. One university college only has art programmes (on level 6 and 7).
5 Flemish universities issue academic bachelor's, master's and doctoral degrees. Although all the programmes at the universities fall under academic education, many of them, especially the master's programmes, can also be seen as HVET programmes.

Providers of programmes and qualifications on level 7
Master's programmes in Flanders are organised at a university.

2.1.4 COUNTRY PROFILE

The diagram gives an overview of VET programmes in Belgium. Because education in Belgium is organized regionally it is not evident to summarize three education systems in one overview.
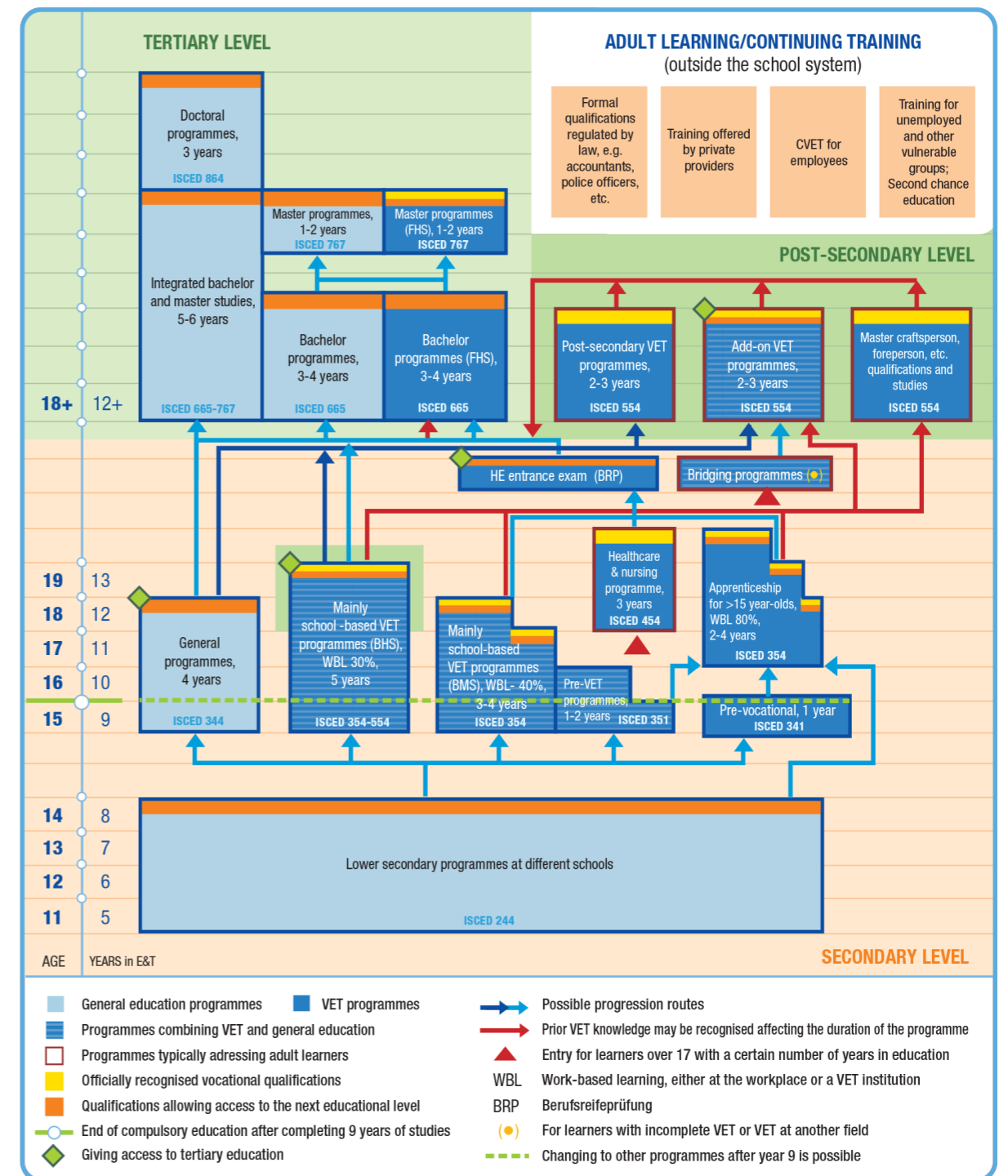
NB: This is a simplified chart based on a common format for all countries in EU-28+Norway and Iceland.
ISCED-P2011. EQF levels are being discussed.
Source: Cedefop and ReferNet Austria.

Spotlight on VET in Belgium
Source: http://www.cedefop.europa.eu/en/publications-and-resources/publications/4135

HVET in Flanders for instance is clearly developed following the European Quality Framework, which is not mentioned in the overview. A deficit in the overview is the absence of the HBO5 programmes that are recognised in Flanders at level 5 since 2009. Also not mentioned in the overview, are the bridging and preparatory programmes through which respectively students with a professional bachelor's degree or an academically oriented bachelor's degree can gain access to master's programmes.

In secondary VET a new system for dual learning is being prepared, with pilots going on from September 2016, both in centres for part-time education and in regular secondary schools. This is of course not yet included in the overview of the CEDEFOP publication.

2.2 SYSTEMS OF HVET/PHE

2.2.1 HOW IS HVET/PHE FUNDED

The officially registered institutions for higher education can bank on government funding for their education and research. These institutions are automatically listed in the Higher Education Register.

Institutions that are not registered institutions for higher education belong to the strictly private education system, which in Flanders is not subject to statutory regulation, due to the constitutional principle of freedom of education.

2.2.2 HOW IS IT QUALITY ASSURED
For programmes on level 5

Up to the transition of the existing programmes – see above – all institutions with HBO5 programmes have been evaluated by the Commission of Higher Education (Commissie Hoger Onderwijs) on the basis of a self-assessment report at institution level (last report: May 2016). In the transition to the new situation all existing programmes will have to submit a self-assessment report at programme level to the Accreditation Organisation of the Netherlands and Flanders (NVAO). In the first phase of the process the NVAO will only assess the programme; in the second phase, after a few years, the organisation will also accredit the programme for some years (the exact process and timings still need to be stipulated in the new decree that will be published

in 2018). It is only after this first accreditation round that HBO5 programmes might be included in the institutional review of their university college. An important condition will be that the evaluation of the institutional review in 2018 will turn out positive for the revised system of quality assurance and that the university colleges will decide to continue using this system. It is thus with the evaluation of the revised system of quality assurance that will be decided upon the way in which and the timing by which the level 5 programmes will be included in the new system.

For programmes on level 6 and 7
The system of quality assurance and accreditation in higher education in Flanders was transformed by a new law in 2015.

In the previous system of quality assurance, each programme was assessed and accredited regularly. For the programmes on level 6 the Flemish Council for Non-University Higher Education (Vlhora) ensured the organisation and coordination of visitation committees that reviewed the training programmes. The accreditation was in the hands of the Accreditation Organisation of the Netherlands and Flanders (NVAO).

By now, all programmes have been externally assessed several times over the last decades and the enhancement perspective that was originally a strong element of the system, lost its vigour. Programme accreditation also brought about a substantial administrative and financial burden and this no longer outweighed the potential benefits.

The revised system of quality assurance is based on trust and autonomy and puts the responsibility for ensuring and enhancing the quality of education more fully in the hands of the institutions. In the new system, universities and university colleges will undergo an extensive institutional review, in which the Accreditation Organisation of the Netherlands and Flanders (NVAO) will assess the quality of an institution's educational policy, its quality assurance and quality culture, and the way in which the institution enhances the quality at programme level. For the assessment of an institution's educational policy, its quality assurance and quality culture, NVAO developed a Framework for Institutional Reviews; for the assessment of quality enhancement at programme level via institutional reviews, NVAO developed the Quality Code. This Quality Code underlines the new system's link to the Standards and

Guidelines for Quality Assurance in the European Higher Education Area and to the relevant qualification frameworks. It also stresses the involvement of internal and external stakeholders and of independent, external peer review and experts in quality assurance at programme level. To facilitate the transition to the new system, institutions that request to undergo the extensive institutional review, will be exempted from programme accreditation. This exemption however never applies to private and postgraduate providers, to new programmes, to programmes with a limited period of validity of accreditation, and to international joint programmes that received accreditation based on European funding.

The institutional reviews have started in November 2015. The full round of procedures will be completed in the summer of 2017 after which NVAO will publish all the review reports. After completing all the institutional reviews, the new system will receive a thorough national and international evaluation. This evaluation will lead to a new law in 2018 laying the foundation for the new quality assurance system that will start in 2020. (Main source: http://nvao.com/news/item/flemish_parliament_approved_new_accreditation_system/81?mid)

2.2.3 WHO OWNS/AWARDS THE QUALIFICATIONS

The providing institutions – mainly centres for adult education, university colleges and universities – award the qualifications.

2.2.4 ROLE OF PROFESSIONAL BODIES

Level 5
Whether or not the existing HBO5 programmes will be allowed to transform into new programmes, largely depends on the work field. The transformation process starts from a professional qualification dossier, issued by the work field and AHOVOKS (the Agency for Higher Education, Adult Education, Qualifications and Scholarships). If the professional qualification is ranked at level 5 and is equated to 90 or 120 ECTS-credits, the existing HBO5 programme is allowed to transform. The way in which the work field is involved in the design of the HBO5 programmes, depends on the institutions themselves. In the accreditation process the degree of

involvement (especially with regard to the development of work-based learning) is an important factor for failure or success. Hence, the visitation committee will have an interview with some representatives of the work field to evaluate their actual involvement.

Level 6
The departmental councils of the university colleges need to exist for a quarter of their members of representatives from the socio-economic and cultural field.

Level 7
Faculties of universities in general have education councils or field committees with representatives from the field of work.

2.3 DATA ON HVET/PHE

2.3.1 STUDENT NUMBERS ON LEVELS 5-8 EQF

Level 5
It is not possible to give the exact number of students at level 5, since the actual registration system does not allow to eliminate double countings. The concept note regarding the development of HBO5, issued in March 2016, states that there are 14.000 students in the HBO5 programmes of the centres for adult education. (Vlaamse regering, 2016, p.16) The number of students in the HBO5 nursing programme of the secondary schools was 7.402 in 2014-2015.

Level 6
Professional higher education in Flanders is the umbrella term for professional bachelor's programmes. The total number of students in these programmes on October 31st 2015 was 112.269.
The total number of students in academically oriented bachelor's programmes on the same date was 71.278.

Level 7
The total number of master students on October 31st 2015 was 43.842.

2.3.2 AGE GROUP

Level 5

Most of all adult learners of all ages: 26% of the students are older than 35 years, 41% are between 26-35 years and 33% are younger than 26 years. Students HBO5 Nursing are not counted here. Their age is situated under 26 years; they mostly flow in from secondary education).

The last years we see a growing participation of younger students that flow in from secondary education or after being not successful at a university college.

Level 6

Mainly age group 18-23.

Level 7

Mainly age group 21 – 25.

2.3.3 QUALIFICATION TYPES

Level 5

Flanders has 55 HBO5 programmes and qualifications: 54 being offered at centres for adult education and Nursing being offered at secondary schools.

Level 6

Flanders counts 171 bachelor's qualifications: 74 professional bachelor's qualifications with 112.269 students and 97 academically oriented bachelor's qualifications with 71.278 students, the latter not counted in HVET (October 31st 2015).

Level 7

Master's programmes have 290 qualifications and 43.842 students (October 31st 2015).

2.3.4 PROVIDER/INSTITUTIONS

Centres for Adult education

In 2016 Flanders has 29 centres for adult education with level 5 programmes. All these centres are united in alliances around a university college.

Secondary schools with HBO5 programmes on Nursing

In 2016 Flanders has 19 secondary schools with level 5 programmes on Nursing.

These programmes are also united in alliances around a university college.

University colleges

A decree of 1994 laid the foundation for the current functioning of the university colleges. After this law 164 institutions merged to 29. Through the years, other mergers followed. In 2013 all academically oriented programmes that were previously organised by the university colleges – except the art programmes – moved to the universities.
In 2016 Flanders counts 13 university colleges.

Universities

5 Flemish universities issue academic bachelor's, master's and doctoral degrees. Although all the programmes at the universities fall under academic education, many of them, especially the master's programmes, can also be seen as HVET programmes. The 'Transnational University Limburg' is recognised as a co-operation between the Universiteit Hasselt (Flanders) and the Universiteit Maastricht (the Netherlands) as a result of an international treaty between the Netherlands and Flanders.

2.3.5 SUBJECT CATEGORIES

Level 5

Centres for adult education ('Centra voor volwassenenonderwijs' – 'CVO's) organise programmes in the following fields of study: Biotechnics, Commercial Sciences & Business Administration, Health Care, Industrial Science & Technology, Social-Agogic Work. Secondary schools organise HBO5 programmes in Nursing, which belongs to the subject category People Care.

Level 6

74 professional bachelor's programmes are organized in 11 subject categories:
• Architecture: 3 programmes, 2.151 students*
• Audiovisual and visual arts: 2 programmes, 570 students
• Bio engineering: 1 programme, 2.471 students
• Commercial and Management Sciences: 15 programmes, 33.504 students
• Education: 3 programmes, 20.977 students
• Health Care: 11 programmes, 20.079 students
• Industrial science and technology: 25 programmes, 15.512 students

• Music and performing arts: 3 programmes, 274 students
• Nautical science: 1 programme, 103 students
• Social work: 7 programmes, 15.445 students
• Combination of different subject areas: 3 programmes, 1.183 students
• Students on 31-10-2015. Source: Vlaamse overheid (2015). Hoger onderwijs in cijfers.
97 academically oriented bachelor's programmes are organized in 32 subject categories. All these programmes are primarily oriented to further studies and not to the labour market. So we don't count them in HVET.

Level 7

290 programmes are organized in 45 subject areas or combined subject areas.

Subject areas with over 1.000 students are:
• Applied Biological Sciences: 23 programmes, 1.332 students
• Applied Sciences: 45 programmes (mainly Engineering), 2.956 students
• Architecture: 3 programmes, 1.023 students
• Commercial Sciences & Management: 6 programmes, 2.374 students
• Economic Sciences and Applied Economic Sciences: 23 programmes, 4.681 students
• Industrial sciences and technology: 26 programmes, 2.788 students
• Language and literature: 11 programmes, 1.104 students
• Law, Notaryship and Criminology: 5 programmes, 3.793 students
• Medicine: 3 programmes, 3.502 students
• Movement and Rehabilitation Sciences: 4 programmes, 2.156 students
• Political and social sciences: 10 programmes, 2.025 students
• Psychology and educational sciences: 11 programmes, 3.804 students
• Sciences: 34 programmes, 2.327 students
• Students on 31-10-2015. Source: Vlaamse overheid (2015). Hoger onderwijs in cijfers.

2.4 COLLABORATION AND PARTNERSHIPS BETWEEN EMPLOYERS, STUDENTS AND PROVIDERS

2.4.1 ADVISORY RECOMMENDATIONS FOR WORKPLACE LEARNING

The Flemish Education Council (Vlaamse Onderwijsraad – VLOR) has the status of a strategic advisory board within the policy area of education and training. In 2007 the council made recommendations on workplace learning as a form of learning in education and training. This was done as a reaction to the policy intention of the former Minister of Education and Work to develop workplace learning into a methodology which could be used systematically in secondary education, adult education, higher education and formal training. The advisory focuses on the application, conditions and recommendations of learning at work within formal educational settings.

Workplace Learning requires a commitment from both the education and training world and the business world, at local, regional and Flemish level. Within these networks a win-win situation should be created. The readiness of companies and organizations ensures that students can gain competences in a real context. Then students can be better educated which is a benefit for both business and educational institutes. In addition, the supervisors at the work place may also be supported and coached. (Vlaamse onderwijsraad, 2007, p. 17)

In developing and organizing workplace learning it is also recommended to keep up with the expectations and visions of business. For example, it is important to ensure that businesses are not overburdened by educational actors and that the workload is reduced for a company or an organization. (Vlaamse onderwijsraad, 2007, p. 17)

The Council further recommends to pay attention to informing and clearly defining the goals of workplace learning. The place and value of workplace learning within the curriculum must be clear to all parties involved. (Vlaamse onderwijsraad, 2007, p. 18)
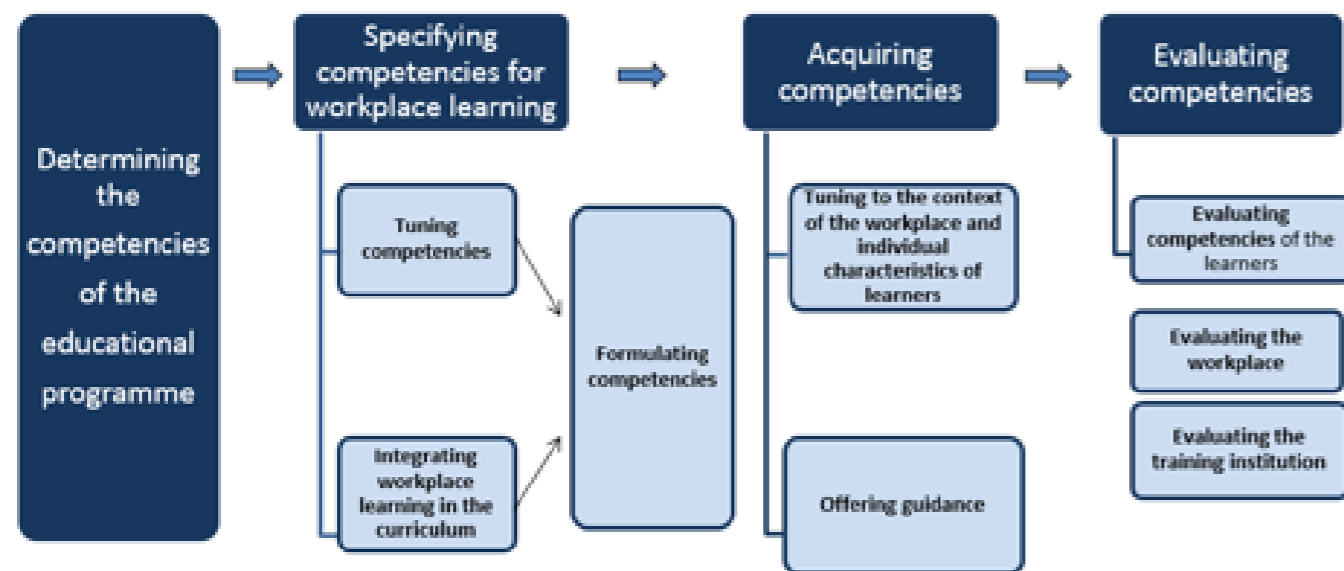
2.4.2 GUIDE FOR WORKPLACE LEARNING

The Institute of Education and Information Sciences (IOIW) of the University of Antwerp developed a guide for workplace learning as part of a research project commissioned by the Flemish Ministry of Education and Training. Workplace learning is defined as 'the acquisition of general and professional skills in a work situation that is also a learning situation (translation).' (Instituut voor Onderwijs en Informatiewetenschappen, 2011, p. 1) This guide aims to help stakeholders in educational and training institutions, in all etducational contexts where real job learning forms a substantial part of the program in determining and evaluating competences in workplace learning.

To organize workplace learning in a qualitative way it is crucial to determine which skills should be acquired through workplace learning and how workplace learning will be integrated into the curriculum.

In order to ensure that the desired skills are acquired in an optimal way, the learner needs to be supported and coached. This can be achieved by tuning the design of the learning process on the concrete work and the individual learner. In any case, high-quality support for learners is to be provided in the workplace and in the curriculum.

Finally, the competencies need to be evaluated. Firstly, the competencies of the learner need to be assessed. Secondly, the approach of the workplace learning and the guidance that is given to the learners also should be evaluated. Both the educational institute and the workplace have a responsibility to ensure that the learner is being given opportunities for learning and is also supported and accompanied in his learning process.

Structure of the guide to workplace learning (Instituut voor Onderwijs en Informatiewetenschappen, 2011, p. 4, translated)

2.4.3 ADVISORY RECOMMENDATIONS FOR INTERNSHIPS IN HIGHER EDUCATION

In 2013 the Flemish Education Council (Vlaamse Onderwijsraad – VLOR) wrote a recommendation note on the bottlenecks for internships in higher education. The council therefore organised a survey in universities, university colleges and industries.

The VLOR noted that higher educational institutions and sectors of industry experience bottlenecks regarding regulations and concerning the availability and the quality of placements, especially by an increase in the number of students and the placement volume. There are also administrative (many and constantly changing administrative requirements), logistic (distant journeys and the associated costs), and educational (ambiguous agreements on the content and assessment of the internship) bottlenecks.

The advisory also advocated that higher education institutions should develop strong partnerships that benefit the training of the student. These partnerships should be based on trust, good communication and a shared responsibility. (Vlaamse onderwijsraad, 2013)

2.4.4 GENERIC WORKING LIFE COMPETENCES

Institutes for vocational education aim to prepare students for entering the labour market. Therefore, they direct their programmes towards practice-oriented knowledge and skills required in specific occupations. Nevertheless, it seems that transition from school to the labour market 'is not self-evident as graduates frequently seem to lack the appropriate work attitudes and soft skills to enter professional working life successfully. Across countries the terminology used to refer to such generic competencies differs: from 'key competencies' or 'employability skills' in Australia to 'core skills' in the United Kingdom or 'employability skills' or 'workplace know-how' in the United States (Clayton et al. 2003).' (Kyndt, et al., 2014)

From 2012 till 2015 AP University College coordinated the project 'Kickstart your future'. It was funded by the European Social Fund. The project conducted research on generic occupational skills for level 4 and above. The question to be answered was: Which generic working life competences young people need to be successful in their job? Based on this research an online

self-assessment instrument for generic working life competencies was developed by AP University College. The instrument can be seen as a 'work ready-test' which measures the attained level of 8 crucial generic occupational skills. It offers students individual feedback and feedforward. It also provides group feedback reports for teachers and counsellors that give an overview of the personal basic skills and competences of the youngsters they guide. To support an efficient and integrated use of the instrument AP University College also developed coaching guidelines and a tool kit with methodologies to coach youngsters in developing working life competences in preparation of a successful entry into the labour market.

The instrument is now predominantly used by Flemish schools for secondary education, but also by some service organizations. In 2016 AP University college also developed an adjusted version of the self-assessment instrument to be used to prepare students of secondary schools to make an informed choice between a regular school programme or a dual learning programme. The online instrument together manuals, toolkit, coaching materials and good practices is available – only in Dutch - on http://kickstart.goleweb.eu.
The generic working life competences that are used in the self-assessment tool are:

Professional skills

- Planning and prioritising
- Cooperation ability
- Appearance
- Reliability and punctuality
- Problem solving ability

Communication skills

- Listening
- Empathy
- Assertiveness

Below we give an overview of the research to develop and validate the self-assessment questionnaire, carried out by colleagues of the University of Antwerp and AP University College. In this study the term 'generic working life competencies' is used, defined in line with Fung and Wong (2012, p. 81) as the "transferable, multifunctional knowledge skills and attitudes that people could learn and develop in different ways and learning environments and apply across a variety of job and life contexts".

'The study comprised four phases. First, a selection of the generic working life competencies to be included in the instrument was made based on group interviews and in-depth discussion with practitioners. Secondly, the items of the questionnaire were developed. The literature was consulted and items from existing scales were adapted to suit the context of the current study. Teachers from vocational education provided extensive feedback during this phase. In addition, the questionnaire was also presented to several vocational education students. In the third phase, a first 99-item version of the questionnaire was tested quantitatively. The expected underlying scale structure of the questionnaire was examined and subsequent analyses took place to reduce the number of items. In the final phase, the reduced 44-item version of the questionnaire was tested with students from the same sample to confirm the structure of the questionnaire. In order to assess the reliability of the questionnaire the internal consistency of the scales in both measurements as well as the test-retest reliability and measurement invariance over time were investigated (Coertjens et al. 2012). In order to explore whether the test produced biased results we checked whether students with or without work experience (work and internships) interpret the items and underlying constructs in the same way (i.e., measurement invariance across groups).' (Kyndt, et al., 2014)

2.5 STRATEGIC TRIANGLE - FINDINGS FROM PRIMARY RESEARCH

This chapter summarizes the main findings from different focus group sessions with the key stakeholders of the strategic triangle: employers (the field of work), H.E. institutions (providers) and students. The sessions were organised and moderated by AP University College Antwerp and were held in February and March 2016.

2.5.1 FOCUS GROUP - EMPLOYER

A focus group with 15 representatives of companies and the field of work was held at AP University College in Antwerp on March 21, 2016. Apart from employers from big companies and SME's, the meeting was also joined by representatives of sector federations and several important Flemish associations from the field of work, e.g. the Flemish Chamber of Commerce, the Social and Economic Council of Flanders, the Public Employment Service of Flanders and The Union of Independent Entrepreneurs.

A leading global observation was that often too much is expected of education. These days it is impossible for educational institutions to deliver ready-made workforce for the field. In addition, it was observed that the field does not have to provide any further guidance or professional development.

1. The importance of collaboration
Employers and their representatives find it unanimously very important to collaborate with (higher) education institutions and students. They are convinced that students and employees, as well as their coaches and supervisors from schools and from the businesses and organizations can learn a lot from each other, not only content-wise but also on how to learn. They argue that collaboration between students and employees improves their motivation. It provides possibilities to search together for solutions for challenges that arise in practice. For sure, working environments these days are so flexible and ever-changing that providers of education and employers need each other. As one of the representatives expresses it, the context in which we learn and work is Volatile, Uncertain, Complex and Ambiguous (see VOCA model). Cooperation is necessary to be able to quickly and flexibly respond to new situations and challenges. Each student learns in a different way, needs a different learning trajectory and

varies in the requested support. To realise this, schools and the field of work have to work together.

In general, the present participants agree that the fields of education and work need each other to exchange knowledge and skills. Collaboration is required to keep the knowledge of the teachers up to date. And companies and organisations more than ever need their network with other companies and schools to exchange knowledge and skills, so they can continue to exist.

Finally, the participants feel that an intense cooperation is also a prerequisite for the organization and design of dual learning, which is an interesting form of education for many young people.

2. The importance of skills and attitudes
Nowadays, it is unlikely that people will continue to work in the same company and in the same job for a long period of time. Therefore skills and attitudes are very important!

3. Areas for cooperation: focus on practical training
Employers and representatives of the field of work argue for an intense collaboration in teams between people from business and teachers. Extensive collaboration can increase job satisfaction for both the teachers, the employees, and students. It creates the best support for learning and talent development of students. It is clear that employers and their representatives believe in internships, workplace learning in which teachers and people of companies and organizations work together. They also note that internships and workplace learning are not feasible for all companies or organizations. Therefore they should not be the only form of cooperation between students and entrepreneurs, otherwise much of the field remains a black box. Other forms of learning employers believe in, are projects in which students work in the college on issues that are given from and explained by the field and the supervising of theses.

Employers see a shift from internships to workplace learning. The difference between both they express as follows: Internships are an extension of the competencies that have been acquired in school. In workplace learning, students acquire new knowledge and skills at the workplace that is not transferred from school. This requires a different attitude from the coaches and evaluators, from the companies and organizations and from the education institutions.

Employers also plead for longer periods of practical training: Teaching methods which combine work and study need someone who supports the student to make the transfer between theory and practice. A good personal relationship between the coach and the student, then, is of great importance. This is also an argument for extended periods in which working and learning are combined and the student is guided by the same coaches. This approach is believed to provide a higher yield.

4. Obstacles and solutions for cooperation
Employers report as the main obstacle for collaboration between education institutions and the field of work the fact that they know each other not well enough: there is too little knowledge from each other. (Higher) education and the field are not familiar with each other and don't know relevant contact persons of each other, or too little.

Employers and entrepreneurs have little knowledge about the higher-education sector. In the field too little insight exists into the various programmes of higher education and what they offer. The number of programmes that prepare for the same position in the field is sometimes enormous. It is a tangle for companies. A large company such as BASF has someone to monitor the developments in education. They even have a team that scans the education landscape overlooking what may soon be relevant to employment for the company. But even medium-sized companies with more than 100 employees don't have somebody within HR to do the constant scanning of education. And it is really a tangle. It is very complex if you want to identify as an employer which audience you want to write to in the context of a function that you make available. It is also difficult to estimate what expectations you may have on a person's specific skills from his degree. Specialists in the field also are not given the necessary time and space to take a role in education.

Higher education has too little knowledge of recent developments in the various sectors and the impact on employment opportunities. In the H.E. institutions a culture of open communication is not always present. Higher education also often places too much emphasis on knowledge and not enough on skills like being able to gain new insights, being critical of themselves and others, etc.

2.5.2 FOCUS GROUP - STUDENTS

A focus group with seven student representatives of Artesis Plantijn University College was held on February 15, 2016 as part of a meeting of the general student council.

1. The importance of collaboration

Students find it unanimously very important that higher education institutions cooperate with employers. Cooperation with employers provides a direct input from the field in their training. This is crucial for a better alignment between programmes and the field. Through their contacts with the industry training programmes can be better aligned with the developments in the field.

Students emphasize the importance of internships and workplace learning experiences, so they may experience how everything works in the field. They testify that all forms of work-based learning prepares them better for the reality in the field. It also provides a lower threshold for the influx in the field. Finally, it provides additional opportunities to find work.

Other advantages students see to illustrate the importance of collaborating are that University colleges take as research institutes smaller companies in tow to realize innovation, and that it gives opportunities to realize spin offs.

2. Areas for cooperation

The main areas for cooperation student see are practice orientation and forms of practical learning in the curriculum. They point to the importance of teachers who know the field and preferably have experience in the field. They find the following forms of practical learning really useful:

• guest lecturers;
• company visits;
• case based education with cases that come from companies;
• project work; and
• internships

Students also point to the importance of collaboration with other professions during internships, e.g. a student social work during an internship at a hospital who learns to work together with nurses, doctors and administrative employees.

Students contribute that if they can come in a business as a student and especially if they can come in different companies, they get a much better view of how things are going on in reality. If they get opportunities to come in the field already from the beginning of their training, they get a view of reality earlier and they also have the opportunity to make their own focus on the directions for their further development. It is really important that sufficient contact with the field (observation internships, company visits, guest speakers) is built into the curriculum from the first year of the training programme.
All good practices students provide about good cooperation with the field are examples of practical training.

3. Obstacles and solutions to cooperation

Students perceive the following difficulties or obstacles in collaborating with the field of work:

• Education and the field of work are too much organized as separate systems;
• Some teachers think they know best, students need only to use the course materials and their examples. They lack openness and are not looking enough at what is happening in the field;
• Logistic difficulties;
• Students who are in their final year are strongly focused on graduation, job search and often also in their private lives. They are therefore still reluctant to even take initiatives to improve training.

Students look for solutions by creating win win situations. Companies can contribute to the improvement of education, students and education institutions can contribute to companies.

4. Ways for students to create a strong partnership with employers / field

Students suggest that they themselves can be given more initiative and responsibilities to try to ensure better cooperation with the industry. One idea is that students can organize contacts with the industry themselves. Given the fact that it is very important in a cooperation that expectations of the company, of the programme and of the students are clear in advance, students argue that they themselves can monitor this alignment of expectations. Another idea to give students during their internship in the last year the opportunity to create a strong bond with the company. Give them a toolkit along with a questionnaire so they can try to find ways

to achieve better cooperation between education and business.

Last but not least students emphasize that alumni can play an important role to create a stronger collaboration between higher education and the field. Alumni who had a good feeling about their training programme can be asked to take up in a company a role in initiating and organizing collaboration with the educational institutes. The university college could take up stronger commitment for an alumni association. It is interesting to involve also students in alumni activities. It is interesting, for example, that students participate at alumni evenings.

5. Ways for employers to create a strong partnership with HE institutions and students

Students ask employers to adopt a more open attitude to students too. Indeed, they often experience that doors of businesses are too closed.

Students also plead that employers provide enough time to employees to focus on cooperation with education. This does not mean that students do not understand the situation in which companies work. As they see it especially companies that are innovative and run well – what makes them interesting for students as well – often are understaffed. When they run well, they obviously are also very busy, they are growing faster than they can keep up with. The problem is that they have no time for cooperation with education institutions and with students.

6. Differentiation between graduates (HBO5), bachelors and masters

Students have a clear view on the differences between HBO5, professional bachelor's and master's programmes and qualifications. They formulate it ready-witted as follows: HBO5 programmes are highly practical training. Students receive less theoretical background; they get very little contact with research. Professional bachelor's programmes are highly practical, but also give a broad theoretical framework. Students additionally come in contact with research and research results. Bachelor's and Master's programmes at the University are very strong focused on theory and research, and little hands-on.
Students appreciate the variety of programmes at different levels in Flanders. The HBO5 programme is good for students who are not focused on a strong theoretical background or are not yet ready to handle

their work from theoretical frameworks.

Students emphasize that it is important that every employee is valued with the diploma he or she has and the value of any degree at all levels is recognized. At the same time, it is not beneficial if there is too much emphasis on the differences between the levels to avoid that groups of employees look down upon other groups. It is therefore important that the personal competencies of each employee are appreciated.

2.5.3 FOCUS GROUP - PROVIDERS

To find out how higher education institutions feel about the cooperation with employers, the field of work and students, this question was asked to the members of the Flemish consultation platform HBO5 (associate degrees). This platform represents all 14 partnerships between the current providers of HBO5 programmes (Centres for Adult Education and secondary schools that offer the HBO5 Nursing programme) and the university colleges.

At the meeting of this platform on January 28, 2016 the BEEHiVES project was briefly presented and also the questions for focus groups discussions. The chairman and the members of the meeting were enthusiastic and willing to collaborate. It was agreed to hold preliminary focus talks within the partnerships and deliver a report thereof to the undersigned. The questions for the focus groups were complemented by three questions that focused on differences between levels 5 and 6. Documents that give insight into the BEEHiVES project and the objectives of the focus meeting with higher education institutions were provided to the members of the HBO5 platform.

Eventually, thirteen focus groups were held in the period between February 1 and March 11 in nine of the fourteen partnerships. Reports of these meetings were forwarded. We made a summary of these reports and delivered it to the members of the platform. This summary was the basis for a final focus discussion that was held at the meeting of the HBO5 Platform on March 24 2016. During this meeting, the answers to the questions were broadly discussed and supplemented. Two additional questions were posed.

The following represents the key findings of all these focus discussions with representatives from Centres for

Adult Education, secondary schools offering the HBO5 Nursing and university colleges.

1. The importance of collaboration

Higher education institutions find it very important to collaborate with employers and the field of work. Main reasons to support this are:

• To be able to train and evaluate students well
• To know what competencies the starting professional should have. The learning outcomes of the programmes must be tailored to the needs and expectations of the industry.
• To adjust the programmes to the real situation and keep them up to date.
• To be able to establish realistic and high-quality practice learning; to ensure adequate places and high-quality guidance for internships and workplace learning. For HBO5-progrmmes the decree stipulates that workplace learning should comprise 1/3rd of the total amount of credits!
• To accomplish the transfer from theory to practice.
• Through collaboration students gain a better understanding of what their future profession looks like: job responsibilities, company culture, etc.
• To be able to evaluate students well. The evaluation criteria for the learning outcomes need to be established with mutual consent (between work field and training programme). They should then be translated so that they are tailored to the students. Only then we can present an efficient evaluation policy.
• Quality monitoring of the training programmes by the field is necessary: continuous assessment of the achieved outcomes by the field is required to adjust curriculum where necessary.
• Information and communication
• The training programme, the work field and the students need to use a common language, to be able to communicate clearly and transparently to students.
• To inform the work field about the possibilities of the training programme.
• Brand awareness of the institutions in the work field.
• Sharing of infrastructure and material facilities creates opportunities for higher education and for the industry.
• Professionalization of employees
• Of higher education institutions, companies and organisations (work field)
• To obtain a good flow of students to the work field.
• E.g. through good cooperation with internship organizations
• E.g. by sharing job vacancies for graduates

• Potential employers get to know the training programme and possibly the students
• Potential future students can be recruited.
• Higher education institutions need to be able to develop an attractive training programme portfolio in line with market needs.
• Social relevance of checking match ability of training programmes.
• Cooperation in the context of research and service provision
• Networking: opportunities for future projects, collaborations, lecturer recruitment, etc.

2. Areas for cooperation

• Study programmes and degrees making themselves known
• Expertise on content, input and exchange
• Education and industry need to be in constant interaction with each other. What are the needs, what competences does a starting professional need to possess? Education and industry can bring expertise to each other.
• Determining the social relevance of a study programme
• Content input when formulating competencies
• Content input for curriculum development, curriculum innovation and curriculum evaluation
• When developing a system of internal quality assurance.
• Organization and design of practical training
• Company visits
• Guest speakers: professionals from the work field share their own practical experience with students. This makes the study programme even more concrete.
• Internships, workplace learning, practicing skills: supply, qualitative guidance and evaluation
• Projects
• Graduation projects
• Students learn from contacts with clients, patients, customers, users
• Professionalization of personnel
• Internships and workplace learning for lecturers / teachers
• Infrastructure and material facilities
• Coaching of students that flow to the field
• The field can further support and guidance graduates in finding a specific job within their company or organization.
• Entering the labour market is a turning point in the life of students. A good preparation for making future choices is important herein. Training programmes and

field can join forces by setting up a joint initiative where students get information about applying, selection procedures, the Flemish Public Employment and Vocational Training Service's ...
• Practice oriented research and provision of services
• Networking: using each other's network; expanding the contacts with alumni.

3. Obstacles and solutions to cooperation

Several representatives of higher education institutions express that the cooperation with employers and the field of work is running rather smoothly. E.g. "We experience a smooth cooperation, mainly because of our internships and theses in the companies.
The main difficulties and obstacles the see, are:

• Education and the industry are different worlds with their own needs, requirements and expectations.
• The work field and education have different priorities. For instance, the work field asks for easily employable employees. For the training programmes the learning opportunities are paramount.
• "Too great a distance (literally and figuratively)."
• Companies and organizations in the field have a (too) commercial point of view.
• "There is both a demand for generally trained nursed and for specialisation in certain fields. The nursing work field is very large. This leads to many different desires, demands and interests."
• The task of education sometimes goes beyond the work field linked with the training programme (social task of education). It is often hard for the industry to get a clear picture on this. Yet this is a very important aspect of education: preparing people to function in the society, offering them a broad education and preparing them for lifelong learning.
• The industry has different interests concerning the scaling of professional qualifications (the higher a profession gets scaled, the more expensive these employees become for an employer).
• Lack of time/means
• Lack of incentives for companies.
• Organizations are not just asked to accept internships, but also to develop projects and organize visits. This makes them feel overburdened.
• Inertia in education
• The job market needs flexible reaction, but the implementation of changes in education is slow.
• The members of the HBO5 platform indicate that not just the education field is slow, but that especially the procedures to develop and update HBO5 study

programmes (in which also the sectors play a role) cause this inertia. The slowness is therefore also found in the legal framework. There needs to be balance between speed and flexibility on the one hand, and consolidation and long-term-perspective on the other hand (no specific company trainings).
• Inertia within the sectors
• Legal frameworks, statues, regulations
• Heterogeneity in the student groups
• An increasing proportion of students consists of lateral entrants. It is the responsibility of the schools not to forget that group when expanding HBO5.
• Organizational barriers
• Specifically for HBO5 programmes: cooperation with companies for study programmes that have evening students/working students. For these students it is hard to be available during the day or during the week. This results in practical difficulties for a collaboration between the work field and the education field, such as workplace learning.
• Other
• To provide guidance for business projects and workplace learning it is important that the companies involved use good coaches.
• Competition for good internship places among different education institutions.

Possible roads to a solution providers bring in, are:

• More and better communication
• For internships for instance: "We feel that organisations should be able to indicate in a central spot whether or not they can offer an internship and what expectations they have. The internship database from Ghent is a good example: (http://applicaties.gent.be/stages/)."
• Educational organisation
• Further development of the recognition of prior learning
• Further development of modularisation and flexible learning paths, also with a view to lateral entrants
• Financial incentives
• Creating win-wins & clear agreements on where the commitment of both partners is profitable.
• Develop a quality framework for (types of) practical learning, in consultation with education, the work field and students. Possible quality criteria could be:
• the possibility for the workplace or internship place to provide underlying theoretical frameworks themselves;
• a minimal number of employees;
• room for mentors to participate in training.

4. Differentiation between graduates (HBO5), bachelors and masters

Representatives of the HBO5 and professional bachelor's programmes answered extensively to the question as to what the key differences in competencies are between graduates from HBO5 programmes and from professional bachelor's degree programmes. We summarize their answers in the table below.

	HBO5 programmes	Professional Bachelor's programmes
Knowledge & skills	• Strongly practice-oriented and application-oriented; practice is key in the progressive acquisition of insight.	• More general and theoretical knowledge • Attention for research skills • Also focused on quality assurance • Also internationally focused
Generic competences	• Complex competences, but less research-oriented.	• More leadership skills; more directed to coaching (larger) teams
Employability	• The HBO5 graduate is prepared for the regional, rather than for the international labour market. • The competencies within a HBO5 training are strongly focused on a future profession. An HBO5-student is trained in terms of participating in the labour market.	• A bachelor graduate is broadly employable, also internationally. He has a set of practical skills that can be developed further in the field. • A bachelor student can faster perform complex tasks independently.
Experience & commitment	• Current HBO5 students are often more mature, have more (practical) luggage and experience, on which acquired insights can continue to grow.	• Most of the students enroll from secondary education, followed by students who did not succeed at a university.
Other	• HBO5 students mainly focus on the solution of a problem. • HBO5 students are trained to become skilled technicians.	• The bachelor student focuses on both the analysis and the solution of a problem. • Professional bachelors have a higher level and can also manage work preparation, planning and follow-up.

5. Function differentiation between graduates from different levels and the civil effect of diplomas

Representatives both of Centres for Adult Education and University colleges emphasize the need to establish a clear function differentiation in function in the work field between level 5 and level 6 graduates. Actions that can be taken to support a clear function differentiation are, e.g.:

• Information & communication
• Informing companies, HR responsibilities, and employment agencies well on HBO-5.
• Higher education institutions also need to give a clear picture of the differences between level 5 and 6.
• Information campaign regarding the specificity of HBO5 (because the field doesn't know level 5 sufficiently). This is a crucial step to move on to clear functional differentiation!
• Clear communication from government and the work field.
• Consultation
• Organize structural consultation between the different levels of higher education.
• Focus groups with companies in order to check whether profiles are over or under qualified for the exercise of various functions.
• Providing clear names and titles
• It is crucial that a distinction is made between the names of the different programmes of level 5 and 6 and the resulting professions. Problems in this area we see now with the nurses and with special education. Only if a clear distinction is made in naming, higher education can create a clear offer.
• Learning outcomes and curriculum development
• It is important that higher education institutions tailor the learning outcomes of the programmes and curricula on the quality criteria of the various levels.
Also to improve the civil effect of HBO5 diploma's in the field, actions have to be taken on the level of information and communication, but certainly also more structural measures are needed, e.g.:
• Official recognition and classification of the HBO5 diploma.
• A clear differentiation of functions with corresponding roles and responsibilities
• Customized remuneration.
• Better flow/orientation towards HBO5 (not only through a waterfall system).
• Visualizing opportunities for growth/promotion.

6. Ways for employers to create a strong partnership with HE institutions and students

• In general: "Accept that education and work are not the same thing: learning is a process, and working is a product."
• Showing more initiative
• Showing an interest in education
• Freeing some time and resources for this
• Role as a connector
• Supporting practice-oriented education and practice learning.
• Providing guest teachers
• Company visits
• Offering internships, facilitating workplace learning; enabling employees as coach and evaluator
• Creating conditions for good supervision of trainees (good reception, time for briefing the internship expectations, mentor who can make time, e.g. can participate in a professionalization around 'coaching' or giving feedback to trainees)
• Boosting employees to assess students in a correct way.
• The employer must be aware of the efforts to be made to record the internship / job learning as an added value in training.
• Supervising theses.
• In general: an open and cooperative attitude.
• Making room for dialogue with educational institutions
• Joining think-tanks, field committees, councils resonance.
Participation in resonance councils at educational institutions, is one of the most important things that employers can contribute in a partnership with a university college or university. In this way HE institutions can deliver in turn students who are immediately employable.
• Developing a vision and policy on cooperation with education in the own organization
• In general: Formulating expectation: what is meant by cooperation and hereby defining responsibilities.
• Acknowledge its importance, and adapt personnel policy to it.
• Appreciate employees if they make efforts to cooperate with HE institutions.
• Indicate fixed contact persons for cooperation with HE institutions.
• Creating conditions so that employees can get a degree or follow more long-term trainings. For this a much better system of paid educational leave should be developed (e.g. duration of paid educational leave depending on the severity of the training).

• Providing infrastructure and resources
• Initiatives from the Training Fund

7. Ways for HE institutions to create a better collaboration with the field of work
• Information, communication & networking
• Taking initiative to make training programmes known.
• Organizing information sessions.
• Making and presenting an "assets" brochure.
• Convincing the work field of the value of HBO5-training programmes for their employees.
• Initiating contact with the work field themselves.
• Maintaining contacts with alumni.
• Consultation and collaboration
• Taking the initiative to install think-tanks.
• Involving the field in Advisory Councils (field committees, resonance groups) and consultation committees of the institution.
• Working with study programme committees that actually have something to say.
• Optimizing existing collaborations.
• Providing enough win-wins.
• Orientation and entry guidance for students
• Attention for good orientation of students upon enrolment. Good HBO5 nurses automatically find their way to the bachelor programme.
• Training programme organization, curriculum development and curriculum evaluation
• Adjusting training programmes and curricula to the work field – be on board with new evolutions
• Tailoring higher education on the rhythm of the adult learner, e.g. one who works, often has other commitments, etc. so more working students can actually study (LLL).
• Organising the school year/ academic year more flexibly (cf. adjustment to work field).
• Organisation and design of practice learning
• Company visits, employing teachers who are also active in the work field, guest speakers (see above).
• Allocating a small teaching assignment to guest lecturers from the field is an example of creating a win-win.
• Formation of internship supervisors.
• Supporting the flow of students to the work field
• Participating in job fairs and company fairs.
• Bringing students and graduates into contact with the work field.
• Support from the work field (war on talent).
• In general: Looking into from "good practices" from abroad for inspiration and adapting the own policy to it.

8. Conclusion: Ways to make partnerships between the three stakeholder groups work
The final focus group with the representatives of the Centres for Adult Education and University colleges was concluded with the following guidelines:

1. Make sure there is a win-win for all three stakeholder groups creating clear agreements and profitable commitments.
2. Take regional initiatives because different regions have specific needs.
3. Develop a quality framework for (types of) practical training, in consultation with education, the work field and students.
4. Invest more in student participation; also for students from HBO5-programmes.
5. The job market needs flexible reaction. So we need enough freedom to do that: legal procedures should not cause inertia.

2.6 SUMMARY AND CONCLUSIONS

Employers, students as well as institutions for higher education agree that collaboration is very important. They all give a variety of motivations to underpin this belief and necessity.

Students experience that cooperation with employers provides a better alignment between their study programme and the labour market. It gives a direct input from the work place in their training. It offers them a good preparation and a lower threshold for employment.

Employers emphasize that collaboration with higher education is necessary to exchange knowledge and skills to develop solutions together for challenges that arise in a constantly changing environment. They believe that schools can learn from companies and companies can learn from schools concerning the learning process of students. They experience increased motivation and commitment with students and employees when they work together in different forms of practical learning. Higher education institutions recognise they need the employers to be able to train and evaluate students well and to obtain a smooth transition of students to the field. Collaboration is necessary to develop an attractive training programme portfolio in line with market needs. They especially also plead for cooperation in the context of research and professionalization of their employees.

All stakeholders see the organisation and design of the practical training of students as maybe the most important area to cooperate. Other areas are: sharing infrastructure and facilities, sharing and exchanging knowledge and expertise, conducting practice oriented research and providing services.

Employers see a shift from internships to workplace learning. They perceive internships as an extension of the competencies that have been acquired in school. In workplace learning, students acquire knowledge and skills at the workplace that are not transferred from school. This requires a different attitude from the coaches and evaluators, from the companies and organisations and from the education institutions. Employers also plead for longer periods of practical training: Teaching methods which combine work and study require someone who supports the student to make the connection between theory and practice. All stakeholders agree that the field is in need of graduates of level 5. They also recognize that a lot of people, especially in the field, are not yet familiar with HBO5. Companies, HR responsibilities and employment agencies, but also students in secondary schools need to be informed well regarding the specificity of HBO5 programmes and diplomas. This is also a crucial step to move on to a clear function differentiation between levels 4, 5 and 6.

All stakeholders report comparable obstacles in collaborating together. They have interesting ideas for solutions. They believe in the solutions in which win-wins are created. They also emphasize a clear commitment of all partners.

To create strong partnerships with higher education employers can for instance usher problems from the field of work in education, make people available for intensive cooperation, being more involved in the development of new curricula and provide input to and participate in research in higher education institutions. Sector federations can capture and bundle needs of companies and organise consultations on it with (higher) education institutions. Employers and sector federations can develop sustainable structures together with the government to build lasting partnerships to ensure that (higher) education institutions can build on commitments from the business.

Students plead that they can take more initiative themselves to establish contacts with the work place. They also see unused opportunities regarding the role that alumni can play. One of their proposals is to give students in the last year the opportunity to create a strong bond with a company, to give them a toolkit along with a questionnaire so they can contribute in finding ways to achieve better cooperation between education and business.

To create a better collaboration with the field of work and with their students, higher education institutions should continue and intensify information campaigns, communication and networking. They need to constantly refresh their training programmes to be on board with new evolutions. They need to further develop the organisation and design of practical learning. They can develop more attention for the coaching of general work attitudes of their students. They should continue and ameliorate their actions in towards orientation and entry guidance for students and to support the transition of their graduates to the market.

To make partnerships work clear agreements have to be made, creating win-wins for all three stakeholder groups. Because different regions have specific needs, this has to be done employing regional initiatives. Participants of the focus groups suggest to invest more in participation of students and in different forms of practical learning. An interesting action would be to develop a quality framework for practical learning in consultation with institutes for higher education, employers and students. The job market needs flexible reaction. As a condition for this all stakeholders need enough freedom to do that: legal procedures should not cause inertia.

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CHAPTER 3

CONTEXT OF COLLABORATION IN HVET IN CZECH

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3.1 HVET/PHE IN CZECH REPUBLIC

3.1.1 BACKGROUND AND POLICY CONTEXT TO HIGHER EDUCATION

The Czech policy discussion has been based terminologically on the concept of tertiary education, which is informally divided into higher education (EQF 6 -8, ISCED 645, 7, 8) and tertiary professional education (EQF 6, ISCED 655). Although the term "tertiary education" is not – according to Eurydice – defined in any legislative norms, it has been used throughout various official policy documents. The term "Higher VET" is not clear, it may partially correspond to "tertiary professional education", but this has not been declared officially.

First changes in 1990s
The idea of expansion and diversification of higher education appeared already prior to the changes within the society in late 1980s. Soon after these various attempts to reflect the changing environment and potential requirements within the society appeared – higher education went through changes formally introduced by the new Higher Education Act from 1990 which reflected the new societal situation and granted higher education institutions with substantial autonomy, emphasised the role of students and allowed for more structured study programmes. However, bachelor programmes were understood "only" as a coherent part of higher education programmes without any substantial restructuring, they still built upon a substantial academic foundation with very limited attention to skills and competences for the labour market. A number of new universities were established on the basis of existing regional faculties, often pedagogical ones, enhancing the scope of their study offer. This step allowed distribution of the university network across the country, yet did not contribute to the desirable diversification and profiling of potential professionally oriented sector. The development was happening still within a rather elite system accommodating about 10-15 % of the age cohort of higher education applicants with the enrolments growing from 26,7 thousand enrolled in 1989 through 44,5 thousand in 1999 at 23 public universities.

At the same time, from 1991 the experimental status allowed for new quality and parameters of vocationally-oriented post-secondary programmes at selected secondary schools. The experiment – although formerly intended to establish a basis for introduction of

professionally oriented higher education institutions, inspired by European binary systems, was translated in 1995 into new arrangements within the School Act which regulated "regional" education from primary up to secondary and – since adopting the new act – also professional tertiary education. Due to various reasons the then-existing post-secondary type of programmes were abolished and their capacity was transformed into 2-3,5 year professionally-oriented tertiary programmes offered within ca 190 secondary schools providing access to education for about 13 thousands of applicants each year. The width of study offered covered a wide range of disciplines, although more than two thirds of the capacity followed the students demand and preferences for business, nursing and social science programmes (68 % in 1999).

Although there were links with the labour market and with the key employers both within higher and professional tertiary education, with the latter one paying probably more systemic attention to mutual communication, the key policy priorities of employers' representation laid within VET, in particular the apprenticeship sector and training of skilled workers.

Still, a non-governmental initiative, a programme of quality evaluation of professional tertiary education "EVOS" initiated and administered by the Czech Association of Schools of PHE could serve as an example of a very good and well-appreciated practice in engaging employers into quality enhancement. The methods and principles inspired by the other European mechanisms built upon self-assessment and communication of the respective school with its stakeholders, the representative of the world of work (usually nominated in consultation with the corresponding professional representation) was compulsory a member of the external peer panel, the principle not necessarily widely accepted in 1990s, long time before the ESG, European Standards and Guidelines for Quality Assurance in Higher Education; the Vice President of the Czech Federation of Industry and Transport declared the employers' interest and support by serving as a vice-chair of the governing body of the "EVOS" programme. Unfortunately, the lack of links to formal recognition, the costs of the participation, as well as missing motivation of a wider range of schools to enter the evaluation procedure led to slow downturn of the programme which evaluated in 1996 – 2001 about 35 programmes at 23 colleges.

Beginning of the new millennium
The Higher Education Act from 1998, together with accompanying measures, brought some new impulses for further development – introduction of structured higher education programmes reflecting the Bologna process, attempt to promote diversification through higher education institutions by introduction of their "non-university" type, although with a very vague specification, opening the system for private institutions. At about the same time the government also responded to the lasting problems with the unsatisfied demand of young population, to the limited capacity of tertiary education, to growing qualifications requirements by substantial enhancement of the higher education budget and due to available financial resources allowed for a dramatic expansion of higher education. While in 1999 only 47.5 thousands of new students from 185.6 thousand applications were enrolled (25,5 % success rate), in 2005 the number of enrolled raised up to 81.5 thousand enrolments from 248.7 application (32.7 %). Due to such expansion and demographic development the net entry rate to higher education in 2012 achieved 60 % according to the OECD while another 9 % represent net entry rate to professional tertiary education.

Also the professional tertiary education faced some systemic changes, formally expressed by the new School Act from 2004. The duration of study programmes was harmonised to 3 years (3,5 years in some exceptional cases of nursing programmes), some elements of higher education, e.g. accreditation, were introduced, and the act also reflected some experience regarding organisational aspects of professional tertiary education. However, the sector had been confronted with lasting deficiency of coherent policy, the situation did not allow for more substantial changes which would correspond to the trends within the emerging principles of the European Higher Education Area. On the contrary to higher education, the capacities of professional tertiary education remained almost the same and were challenged by the attractiveness of expanding higher education. While in 1999 the sector accommodated 13.7 thousand new students (from 29.5 thousand applications, success rate 46.5 %) in 2005 the number of those enrolled dropped down to 11.3 thousand (from 19.1 thousand applications, i.e. 59.2 % succeeding). Besides the social perception of the status of professional tertiary colleges, unequal funding of part-time studies

and life-long learning activities within the sector in comparison to higher education might have played a role, as well.

From the year 2000, about 50 new private higher education institutions have emerged, a fair part (more than one third of them) were based on foundations of a former tertiary professional school/college. Due to legal and accreditation provisions, as well as an unclear concept of professionally oriented higher education, most of these new higher education institutions gained the status of higher education institution of the non-university type. However, the discussions indicated that the focus on professional higher education was the driver for establishment and development only in some cases. In addition, the Ministry and the Accreditation Commission forced the condition that those built upon the former professional tertiary college would have to split from or even cease the existence of it. In 2001, respectively 2004 two public "non-universities" were established on the basis of strong colleges. Yet, the pool of potential candidates selected by the Ministry from among the public colleges was wider, listing at least seven institutions in the first stage; however, the process interfered also with the shift of the governing power to the regions.

Both sectors within tertiary education remained relatively discreet, closed, with limited opportunities for transfer, except the few cases of joint Bachelor programmes provided by about 15 professional tertiary colleges (quite often independent from the secondary school) under the formal supervision of one of the universities.

The formal engagement of employers remained relatively weak, although the key policy documents had been consulted within the tripartite structures. There was a limited representation of employers in the Accreditation Commission for Higher Education, more substantial was engagement of the world of work, from different spheres, within the Accreditation Commission for Professional Tertiary Education.

Reform attempts in the second half of the first decade of 2000s
The OECD review of Czech tertiary education in 2005 brought new impulses to the policy discussion. The OECD report included – among other – the recommendations towards systemic diversification of tertiary education, strengthening the role of

professionally oriented programmes both within higher and other tertiary education sectors, establishing clear routes for transfer and recognition of achievements, as well as strengthening links to the labour market and the world of work including engagement of their representatives within the governance structures of institutions.

These impulses were further developed within the ministerial White Paper on Tertiary Education (2008), the first policy document taking into account a full complexity of the entire tertiary education development. There were proposals regarding diversification, emphasising the professional stream while enhancing the role and position of professional tertiary education and integrating it within the tertiary education with a respect to European trends. Yet, due to a number of other factors the discussion with the academic community led over the next years to adoption of only some of the proposed objectives with the support of European Social Fund resources. The key activities regarded the development of the qualification framework for tertiary education, yet with less attention paid to the short cycle programmes (which have not been formally incorporated within the legislation) and to specifics of professionally-oriented higher education programmes and provisions (which were not very clearly defined within the formal framework), quality assurance and enhancement agenda, mainly at the institutional level, reflection of performance indicators within the funding mechanism for higher education. The complex reform attempts faced numerous challenges in confrontation with the academic representation and slowly a number of former intensions have been modified. The attention to the full landscape of tertiary education was steadily narrowed to the higher education agenda, the professional tertiary education proposals being summarised in a separate analytical and policy document "Tertiary Professional Schools at the Crossroads: Analysis of the State and Potential Development of the Tertiary Professional Education" commissioned by the Ministry of Education in 2009.

Recent developments
Following the lasting policy debates on possible approach and scope of reforms within tertiary education – in the later stages only higher education –a set of minimum key changes was introduced by the amendment of the Higher Education Act from 2015. These are represented mainly by substantial changes

in quality assurance including an introduction of the National Accreditation Authority and enabling institutional accreditation which should contribute to transparency, efficiency of quality assurance and enhancement of autonomy of those higher education institutions which would demonstrate effective internal system of quality assurance. From the view of professional higher education there have been a few important issues in the stake:

• Embedding two different profiles of higher education Bachelor and Master study programmes – an academic profile and a professional one, however the definition of the latter one is rather general, emphasising the links to the labour market and development of relevant skills and competences based on the appropriate theoretical foundation in the case of the latter one;
• Adjusting the academic qualification requirement of the guarantees of Bachelor programmes; Ph.D. qualification is required on the contrary to the past provisions calling for a guarantee by associate professor (which is in the Czech setting an academic qualification for more advanced academic staff, not a function);
• On the other hand, a number of formerly considered arrangements which might have strengthen the links between higher education and the world of work (e.g. recognition of senior staff from the world of work as relevant tutors fully respected for the accreditation) have been neglected.

The reforms and legislative changes in higher education haven't concerned at the later stages the professional tertiary education, mutual links and its role and have left the sector without any impact, with possible one exception which even complicates provision of joint Bachelor programmes in collaboration of a higher education institution with a college of professional tertiary education. There is still no clear concept or policy of the development of the entire tertiary education as a whole or regarding the professional tertiary education sector.

Both parts of tertiary education therefore exist relatively separately, including separate legislative arrangements, system of governance, funding and quality assurance.

Policy context for HVET/PHE
The policy context over the past three decades was described within the first chapter on the background, including the key policy drivers – attempts to enhance autonomy of higher education institutions in early

1990s, attempt to diversify tertiary/higher education by means of upgrading the post-secondary VET programmes and establishment of professional tertiary schools, some of which were later transformed into higher education institutions of non-university type (called these days on European scene "universities of applied science"). Unfortunately, there have been rather limited possibilities for a dialogue of representatives of higher/tertiary education and the employers/world of work at the system level. The key focus of the world of work had been for a long time oriented towards lower levels of VET, in particular to apprenticeships, tertiary and higher education seemed to attract less attention. At the same time, the academic community was not very eager and ready to invite the employers to policy discussions. A number of reform debates took their views into account, yet the key discussions were reflected within the academic community and the Ministry of Education. The sector of professional higher education lays aside of the key topics, although it could have represented a possible source of diversification, especially during the period of enhancing access to tertiary education.

More collaboration appears thus either on sectoral (various technical fields, nursing, social care, etc.) level or at the school/programme level. Still, the results of some surveys and discussions point to a fair potential for strengthening practical parts of tertiary education including appropriate internships, low engagement of employers/world of work representatives in curricula design, delivery of study programmes and quality assurance… However, the situation is not black and white, some practical experiences indicate that even if such space (consultation, invitation to partnership, etc.) is offered to partners from the world of work, it is not often used to the expected scope. The development would therefore call for long-term partnership based on mutual understanding and mutual benefits.

The recent changes within higher education were described above. As the legal framework was adopted only in 2015 – and various implementation measures, e.g. accreditation standards, definition of the "professional profile", requirements for and impact of institutional accreditation, have not been specified yet – it seems to be too early to assess new potential drivers. However, an enhanced interest of Czech industry, business, but also welfare sector in more effective and efficient ways for relevant qualifications could be felt, not always resulting in consistent and long-term vision

driven proposals.

The missing overall concept is an issue not only within the professional higher education sector, but partially also within higher education where a number of formerly considered reform themes regarding diversification, governance, relevance to societal needs, transparency or information for students, academics, as well as society have been removed from the discussion in order to achieve some minor progress.

3.1.2 QUALIFICATIONS COMPRISING HVET & PHE

The tertiary education system in the Czech Republic covers three levels of the European Qualifications Framework (EQF 6 – 8) from professional tertiary education programmes via Bachelor and Master Study programmes through doctoral programmes and since recent changes allows for a professional profile in most of them except the latter ones. The professional tertiary education is constructed fully as a profession-oriented, leading to a qualification relevant mainly for the labour market. And, indeed, although there have been formally set some possibilities for a transfer of the graduates of professional tertiary programmes into advanced stages of Bachelor programmes, neither approach of majority of public higher education institutions, nor some regulations of the Accreditation Commission (for HE) were rather complicating such pathways, e.g. statement of the Accreditation Commission on recognition of only "non-profiling subjects/modules". The Czech educational system hasn't still accommodated any study offer corresponding to EQF5, short-cycle higher or tertiary education, although this was at some moment also one of the topics for the reform discussions – to be introduced either at tertiary professional colleges or higher education institutions, however the representations of both sectors refused such initiative, although the employers seemed to be rather in favour of such enhancement and adjustment of the educational framework.

Higher education is provided by higher education institutions at three standard levels:

• Bachelor's degree programmes (EQF 6, 3 – 4 years, usually corresponding to 180 – 240 ECTS);
• Master's degree programmes (EQF 7, 1 – 3 years/60 – 180 ECTS/ or 4 – 6 years/240 – 360 ECTS/ ab initio,

not following the Bachelor degree level within non-structured programmes);
• Doctoral degree programmes (EQF 8, 3 – 4 years usually without credits specification)

Due to new legislative changes (2015), the study programmes may be declared to have a "professional profile" at Bachelor's and Master's degree levels. Although the signs of differentiating professionally-oriented programmes at the Bachelor level have appeared since 2000 within by-laws and accreditation regulations, the professionally-oriented strand has never been fully comprehended and specified and as such couldn't have played a role in diversification of the higher education study offer. The legislative changes are rather new, a number of standards – including those relevant for the professional profile programmes – have still been waiting for establishment of the new National Accreditation Authority and appointment of its Board members (formally from September 2016). It is therefore too early for any conclusions.

The study programmes could have been provided within the former legislative arrangements jointly in collaboration of a higher education institutions and another educational institution. This arrangement, although formerly intended mainly for joint Ph.D. programmes of universities and the Academy of Science, has initiated a number of joint initiatives of universities and professional tertiary colleges. At the peak stages around 2010 there were about 20 partnerships of such nature, all of them building upon rather "professional character" of the study programme in various fields – social work, nursing, information services, ICT, construction, and so forth. This could have been seen as a sort of "franchise" where the higher education institution has awarded the degree, registers the students and guarantees a quality while numerous processes and procedures – including curricula design, teaching, learning, organisation of studies including some internship – have been carried out by the partner college. Yet, the decline of demographic curve of teen-age population, formal measures adopted by the Accreditation Commission, as well as tightened space for such cooperation within a new legislation (enhanced responsibility of a "parent" higher education institution, necessity to accredit the study programme even in the case of institutional accreditation for the entire study offer of the university, etc.) have led to termination of numerous partnership agreements and minimisation of such cooperation.

Professional tertiary education is provided mostly by professional tertiary schools/colleges (vyšší odborné školy, EQF6, ISCED 655, 3-3,5 years) and to a limited extent in the two highest grades of conservatoires (konzervatoře, ISCED 554). For the purpose of this report the studies within professional tertiary schools are more relevant and will be a basis for further information. According to Eurydice report on the Czech tertiary education: "Tertiary professional schools were established to provide professionally-oriented non-university tertiary education, nevertheless since the very beginning they have been struggling with unclear function, status and relations within the education system and subsequently with characteristics (e.g. duration of study) that place them into a specific situation within the European context." The same description refers to the Study on the National Qualification Framework for Tertiary Education: "Educational programmes of tertiary professional education do not meet the characteristics of a short cycle, so they cannot be assigned to this category. Under the current legislation, completion of the programme of tertiary vocational education does not authorise the admission to study programmes of the second higher education cycle and thus, they cannot be in the position of the first cycle programmes." An attempt to define the role and the status of different streams in tertiary professional education better within the reform of higher education has not ended successfully and the sector – despite benefits for students and graduates – waits for clearing up its potential for the next development.

However, the professional tertiary education meets many of the requirements regarding the professional higher education as defined by EURASHE (see www.eurashe.eu) – the programmes are expected to correspond to regional labour market and world of work requirements, curricula are to be developed together with the world of work representatives and the accreditation mechanism involves not only representatives of the colleges and universities, but also a fair amount of the world of work representatives. Internships and/or practical stages of study are an obligatory part for curricula. Yet, due to policy ambiguity a number of other issues – especially the role, links to other sectors, formalised engagement of the world of work, various flexible ways of delivery, staff profile… - are still waiting for more precise specifications.

As stated earlier, there is no concept corresponding to Higher VET in the Czech policy debate. The closest to any potential comprehension of the term may be professional tertiary education, also due to its embedding within the "regional education" and co-existence of majority of professional tertiary colleges within one legal entity with VET schools. It is hardly possible to link the professionally oriented higher education programmes to the HVET term; the concept of professional higher education is difficult enough for the discourse. However, some bachelor programmes, not only within the non-university higher education institutions, but also at some faculties of universities (e.g. nursing, social work, some technical programmes) have been already identified as "professional". The new impulse could be brought by the HE Act amendment and consequent steps, extended to some Masters' programmes. Yet this would need a focused debate within the academic community and strengthening of discussion between academia, world of work and policy experts.

Who owns/awards the qualifications
The issue of ownership and/or awarding the qualifications is rather simple. The institutions within the entire tertiary– both higher, as well as professional tertiary – education are the bodies awarding the qualifications and issuing appropriate certificates; they are entitled to do so under the provision that they meet the criteria for being registered as a relevant type of institution (law on establishment in the case of public higher education institutions, state recognition in case of non-public higher education institutions, recommendation of the regional authority and approval of the Ministry of Education in case of registering the professional tertiary education provider) and meet the appropriate accreditation criteria, as stated by the relevant Accreditation Commission (and in some cases formally confirmed by the Ministry).

The situation may be slightly modified for higher education institutions which would meet the criteria for institutional accreditation which would allow them to develop and introduce their own study programmes within the specific field (e.g. economics, construction engineering…) within their own planning and capacity. However, the detailed criteria have not been agreed upon yet and it is likely that it may take some of the "professionally oriented" institutions a fair amount of time before being granted the institutional accreditation. Nevertheless, it may occur that some of the leading

universities, which are more likely to apply for the institutional accreditation, would gain such right even for the "professional profiles" of study programmes. But this is still a matter of further debates and agreements.

3.1.3 PROVIDERS OF HVET/PHE

According to Eurydice "higher education institutions are public, state and private. Under the Higher Education Act, they are classified as university type (24 public, 2 state and 3 private) which offer study programmes at all three levels of higher education and non-university type (2 public and 39 private) which offer mainly Bachelor's programmes, but may also provide Master's programmes." Their "professional orientation" should be reflected also within their research, development, artistic and other creative activities, yet there is no further specification of the distinct nature and character of such activities; similarly vague specification regards the role of the Academic Board which "non-universities" have to establish instead of universities' Scientific Board for discussing strategic and academic matters. Higher education institutions of this type are not divided into faculties. The typology and details have not been changed within the recent legislative arrangements, although the term "higher education institution of non-university type" had been individually criticised as being negative and out-dated. The later stages of the discussion on legislative arrangements haven't taken a potential role of the professional sector into account, providing most likely that the "professional profile" of study programmes might lead to some diversification of missions and characteristics at programmatic level. It is too early to assess any impact.

The "non-universities" might be seen as bearers of the professional higher education direction, yet in reality the situation is not that transparent. These are – except 2 public institutions which had been established on the basis of well-developed professional tertiary colleges in the beginning of 2000s – mainly private institutions, main part of which were founded as higher education institution with some more or less clearly formulated ambition to achieve comparable status to public universities, while offering some programmes demanded by a market or covering some market niche. The performance and quality assessment which is driven either by the Ministry of Education or the Accreditation Commission places a reasonable emphasis on "traditional academic values and aspects", e.g. citation,

academic profile of key staff. That strengthens another aspect of potential "academic drift" of many institutions who might within other provisions address the ultimate needs of the community in their region or world of work more directly.

The situation within the tertiary professional education is more atomised also due to regional distribution of the network of professional tertiary schools/colleges. There are 173 schools registered within the network (115 public institutions, 46 private, 12 established by a church), however in late 2000s the number of schools was higher, around 190 schools. It is likely that due to demographic reasons and wide access to higher education some of the former professional tertiary schools have terminated their activities and enrolment of students. This seems to be the case in particular within the private sector (1335 enrolled in 2015/16 in comparison with 2986 in 2008/09 representing 44.7 % of the previous capacity; while the entire sectors' capacity has declined from 10685 enrolled in 2008/09 to 6887 newly enrolled students in 2015/16, i.e. 64.5 % of the previous capacity). Tertiary professional schools ("vyšší odborná škola") are listed as a type of the school within the Education Act. There is no further detailed specification within the Decree on Tertiary Professional Education (2005)0 , all specifications are related to organisation of education. Some matters concerning steering and management are respectively corresponding to secondary school, with which the majority of tertiary professional schools are integrated within one legal entity.

3.1.4 COUNTRY PROFILE

With references to the visualised spotlight on VET in the Czech republic:
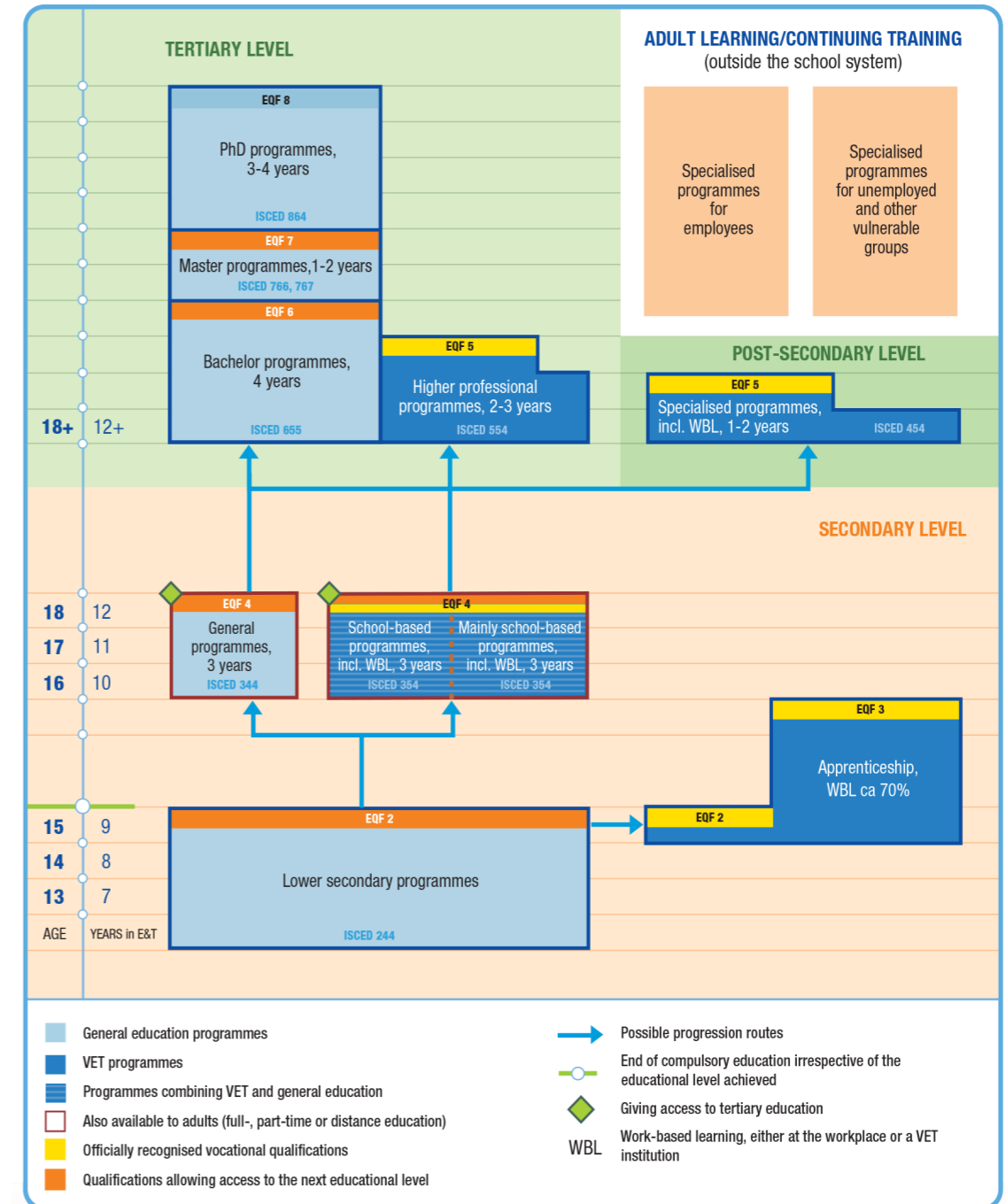
NB: ISCED-P 2011.
Source: Cedefop and ReferNet Cyprus.

Spotlight on VET in Belgium
Source: http://www.cedefop.europa.eu/en/publications-and-resources/publications/4135

• Studies at tertiary professional schools last indeed three to three-and-half years, are completed by absolutorium, however it is aligned to EQF 6 level only. There is no programme within the Czech formal educational system which would lead to EQF 5.

• It is not correct to include higher education within the chapter "VET at tertiary level", including the newly introduced "professional profiles" of Bachelor or Master study programmes. These are integral, specific pathways within higher education. Such classification may be very confusing and counter-productive for any further policy debates.

3.2 SYSTEMS OF HVET/PHE

3.2.1 HOW IS HVET/PHE FUNDED

Higher education (EQF 6 – 8)
The Ministry of Education is responsible for the overall governance of the entire higher education without any differentiation regarding the profile of study programme including the overall policy, strategy, funding, administration of the system and recognition of higher education and qualifications from abroad. Specific role of the Ministry in case of granting or termination of the accreditation (following the proposal of the Accreditation Commission, the negative standpoint is binding for the Ministry) was reviewed recently within the HE Act amendment in 2015.
There are specific roles of:

• the Ministry of Health as regards standpoint to the relevant study programmes in the field of health services;
• the Ministry of Defence and the Ministry of Interior play a specific role as regards foundation, funding and content of relevant study programmes in the military and police higher education institutions.
• The Accreditation Commission as regards q uality of higher education – accreditation, evaluation and rights for habilitation procedure and procedure for appointment of professors, see further on.

The new format of the Higher Education Act also introduced more general role of representative, self-governing bodies of Higher Education Institutions as a consultative body/bodies for policy, nomination of candidates for the Board of the National Accreditation Authority, etc., the note is without any concrete reference to the previously established Council of HEIs, the Czech Rectors' Conference, both of which

have informal respect and position. Yet, none of these representations takes into account any differences between different profiles of higher education institutions.

All the arrangements are general for the entire higher education system.

Funding of higher education
A public higher education institution is entitled to public funding for both teaching/learning and research activities. The amount provided for education is only a part of income of each higher education institution and "is determined according to the types and relative costs of the accredited degree programmes and lifelong learning programmes and the results achieved in the scholarly, scientific, research, development, artistic and other creative activities and their demands." The amount provided also depends on the institution's strategic plan and the Ministry's strategic plan for higher education. There is no formally declared different approach as regards PHE.

The funding mechanism for higher education is based in principle on per capita funding (reflecting the number of students, as well as financial demands of the study programme where medicine has different coefficient than technical studies). There is no different approach as regards professional higher education, however the allocation reflects also some performance coefficients regarding different scope of research activities, teaching, staff qualification, internationalisation, employment of graduates, etc. and may thus influence the weight of contribution to different types of institutions.

It is worth notice that many higher education institutions base their income rather on research grants and other sources of income and educational funding plays relatively less important role.

Private higher education institutions must make provision for financing of their teaching, research and other activities. There are some exceptions allowing the Ministry to provide a subsidy for those which were established as a non-for-profit organisation. Yet, this has happened on a very rare, specific occasions.
Tertiary professional education (EQF 6)
Tertiary professional education has different governance which is two-fold:

• The Ministry of Education is responsible for overall policy, funding framework, legislative arrangements and quality of this type of education within the so-called "regional education" (pre-school, primary, secondary and tertiary professional),
• The Regional authority (14 regions in the country) is responsible for regional strategy, final decision on concrete funding, administration of schools' network, its structure and capacity

Again, there are specific roles of some "field" ministries, e.g. the Ministry of Health, Ministry of Interior, as regards content of relevant study programmes. There is a specific Accreditation Commission for Tertiary Professional Education which is to take care of the quality issues, mainly accreditation; it is an independent body with a consultative power to the Ministry. The issues of quality evaluation fall officially within the competence of the Czech School Inspection.

The funding situation within tertiary professional education is slightly different from higher education. All types of schools are eligible for public funding, though there is a difference between public and private schools, the latter ones being at the same time able to set their own fees whereas public schools' relatively decent fees are set by the governments' decree. This is the only sector where students pay tuition fee at public institutions. The church schools get comparable grant to the public ones, but may charge fees according to their calculation. The regional authority has a right to adjust the amount of the public grant following their strategy and priorities.

3.2.2 HOW IS IT QUALITY ASSURED

Higher Education (EQF 6 – 8)
The key role within entire higher education played the Accreditation Commission, an independent body appointed by the Government. It was "concerned for the quality of higher education and carried out comprehensive evaluation of the teaching, scholarly, scientific and research work, development, innovation, artistic and other creative activities of higher education Institutions" in particular by "evaluating the activities of higher education institutions and the quality of accredited activities and publishing the results of such evaluations" and "reviewing other issues affecting the system of higher education, when asked to do so by the Minister". The study programme was in the core of attention within the institutional context. The Ministry played some role regarding formal recognition of the accreditation.

There were no specifics as regards the different streams of higher education, yet the Accreditation Commission expressed its standpoint on "specification of the type of higher education institution", thus confirming whether the higher education institutions should adopt the status of university or non-university type. There were general specifications of what the accreditation submission should contain; e.g. professional profile with specification of learning outcomes and characteristics of relevant professions, components of the programme, staff, financial, material, technical and information support. "In the case of degree programmes focusing on preparation for the practice of a regulated profession, a statement that the relevant degree programme is focused on preparation for the practice of a regulated profession and a standpoint of the relevant recognition body with respect to the appropriate competence on the part of graduates to practice this profession" should have been provided. The "decree on accreditation" further required a specification of the content and scope of a practical placement for the full-time professional bachelor study which is focused on preparation for a profession, in particular at a non-university higher education institution. Otherwise there are no specific arrangements as regards professional higher education. The situation has changed as a result of the Higher Education Act amendment from 2015, where quality assurance provisions were – after lengthy policy discussions – the key topic. The Accreditation Commission was replaced by the National Accreditation Authority which – while being organisation-wise

integrated within the Ministry of Education – should be more autonomous and directly engaged formally with the decisions and potential appeals. The authority is to be governed by the fifteen-member Board where at least a few of them would be nominated by the employers' representation.

The changes were brought also with an objective of respecting some key principles within European Higher Education Area and transfer the enhanced accountability and responsibility for quality assurance towards the institutions.

Unfortunately, the role of employers and the world of work as regards quality assurance and enhancement of Czech higher education remain rather unclear and no plans for strengthening the dialogue between the respected parties could have been envisaged.

Tertiary professional education (EQF 6)
The accreditation of study programmes is provided by the Ministry of Education after the assessment of the content and specialisation by the Accreditation Commission for Tertiary Professional Schools, yet the Ministry should respect the Commission's dissenting opinion on the programme submission. The members of this body are appointed by the Minister.
The programme submission should contain also:

• Professional profile specifying knowledge, skills and competences;
• A list of potential professions relevant for graduates further careers;
• A specification of "vocational training" (including students' placement) including the list of potential subjects where the placement might take place;
• A statement on social relevance of the study programme including possible declaration of relevant professional bodies and subjects.

The evaluation of the compliance with the legal requirements, as well as of the quality is within the competence of the Czech School Inspection, the organisation responsible for these issues within the entire "regional" education, from pre-school preparation via primary and secondary education through professional tertiary education. Due to the vast scope of focus, due to long-term experience of the inspection with the lower levels and due to specifics of tertiary education, the attempts to develop some "standard" approach to quality assessment or even

enhancement were not very successful. The role of the Czech School Inspection has therefore been an issue for questioning, consideration and further identification of appropriate approach. Albeit the Czech School Inspection carried out recently attempts to develop updated tool for monitoring the problems and quality within the professional tertiary education, the intention to harmonise that with other levels of education and especially the missing long-term policy regarding the professional tertiary education and its role within the educational system affected this effort substantially, as well.

Although the engagement of the world of work in quality assurance of professional tertiary education has been substantially stronger both at the system and probably at the institutional levels when compared to higher education, there is still a reasonable space for improvement in that particular area.

3.2.3 ROLE OF PROFESSIONAL BODIES

Higher Education (EQF 6 – 8)
There are no specific arrangements, no notion of the professional sphere within the formal and legislative documents, except the standpoints of relevant ministries on study programmes within the regulated professions.

Tertiary professional education (EQF 6)
There are a few points where the interaction with the professional sphere is mentioned in the legal documents:
• The practical placement at companies as a tentative part of the study programme;
• A possibility of inviting an expert from professional sphere as a member of the final examination committee;
• The Accreditation Commission for Tertiary Professional Schools shall consist of twenty-one (21) members appointed by the Minister from among experts from universities, tertiary professional schools and practitioners with relevant expertise.
• A specification of "vocational training" (including students' placement) including the list of potential subjects where the placement might take place;
• A statement on social relevance of the study programme including possible declaration of relevant professional bodies and subjects.

3.3 DATA ON HVET/PHE[33]

3.3.1 STUDENT NUMBERS ON LEVELS 5-8 EQF

There is no EQF level 5, only EQF 6 Level Bachelor and Diploma Specialist. There is no specification of the "professional" Master programmes.

		TOTAL AMOUNT OF STUDENTS
Professional tertiary schools/colleges (VOŠ)	Diploma specialist	24 783
Private Higher Education Institutions and Higher Education Institutions of the non- university type	Bachelor	22 554

Source: Statistics of the Ministry of Education, Youth and Sports regarding 2014/2015

[33] *Commentary to the statistics and data sources of professional tertiary education:*
This work contains a commentary explaining the data on PHE in the country. The basic source of data from is from annual reports of the Ministry of Education, in our case report for 2015. The colleges are a separate chapter and therefore the fundamental data are available.
Professional bachelors are present at two non-university public schools and at most private schools. However some private higher education institutions are higher education institutions of the university type (at least two), and one can assume that they offer programs both as university and non-university type.
Ministry statistics show data for all universities, non-university are not earmarked. The only division of university students in total numbers available show that public universities have 292,578 students, private universities have 34 795 students. From these data some statistics cannot be conclusive and information cannot be put forward.
There are some data available on individual institutional websites and in their annual reports, but not everything is publicly available and especially the statistics are done based on individual institutional criteria and therefore compatible. Furthermore, not all of the bachelors in the private schools can be regarded as vocational trainings, as it was originally the case. Their current development into delivering of more universal provisions would conclude into biased data.

3.3.2 AGE GROUP

VOŠ - professional tertiary schools	Private HEIs and HEI of non Uni Type
DIPLOMA SPECIALIST	BACHELOR

AGE	Nb. Of students	
18 – 21	10 286	Age differentiation is not available
22 – 24	7687	
24 +	6810	
Total	24 783	22 554

Source: Statistics of the Ministry of Education, Youth and Sports regarding 2014/2015

3.3.3 QUALIFICATION TYPES

There is no data available on the national level. Only individual institutions publish their information.

3.3.4 PROVIDER/INSTITUTIONS

Type of Institution	Nb. Of schools	Nb. Of students
Professional tertiary school/colleges -"Vyšší odborné školy- VOŠ"	171 schools	24 783 students
Public HEIS of non univerisity type – "veřejné vysoké školy"	2 schools	There is in total 22 554 students at these institutions, the number of students of professionally oriented programmes at public universities is
Private HEIS – "soukromé vysoké školy"	43 schools	not available, such data are included within the comprehensive higher education statistics without differentiation. Yet, a number of such students would not be very high due to limited interest in offering professionally oriented programmes.

Source: Statistics of the Ministry of Education, Youth and Sports regarding 2014/2015

3.3.5 SUBJECT CATEGORIES

From the type of founders there are these types of possibilities:

Higher education institutions:

- 2 public
- 43 private

Professional tertiary school/college:

There are 171 schools. In principle there are these 3 types of schools, yet statistically they are not earmarked.

- regional schools founded by Region (authority) – regionally funded
- private schools
- church schools

3.3.6 MODE OF ATTENDANCE

Mode of attendance	Professional tertiary schools/ colleges	Private HEIS and Public HEIs of the non-Uni type
full-time students	17 129	Not available
part-time students	7654	Not available

Source: Statistics of the Ministry of Education, Youth and Sports regarding 2014/2015

3.4 COLLABORATIONS/PARTNERSHIPS BETWEEN EMPLOYERS, STUDENTS AND PROVIDERS

Hereby are two summaries of examples of good practice of cooperation, further details available in the Information sheets.

3.4.1 EXAMPLES OF GOOD PRACTICE ON REQUIREMENTS FOR CONSULTATION ON DESIGN / EVALUATION AT THE COLLEGE OF POLYTECHNICS JIHLAVA – DEPARTMENT OF TOURISM

Following a good practice example of institutional department where the cooperation with the world of work is happening through various different means. Namely, here is shown the example of joint design and evaluation of the study programmes. Yet it is important to note that, in general, on the level of school management, there is officially prescribed participation of the employers in the management board of the institution. The management board besides general financing questions, also deals with the mission of institution and has a say in the development of the type of study programmes.

POLICY AND STRATEGY

The College of Polytechnics (VŠPJ) was established as the first public higher education institution of the non-university type in the Czech Republic in 2004. Its role in the tertiary education system is in general form prescribed by law (Higher Education Act). VŠPJ most outstanding feature is its focus on cooperation with the world of work, with an emphasis on the rapid incorporation of graduates in the workplace.

The Jihlava Polytechnics was established with the support of the Vysočina region. The legislation required a draft bill on the establishment of public Higher education institution to be submitted to the Parliament by regional authorities. By this first step the Vysočina region declared their relationship to this new public higher education institution and regardless of the political setting of regional governance, the relationship and cooperation have stayed at a very good level.

TEACHING AND LEARNING

The Department of Tourism provides an undergraduate program in Economics and Management of Tourism. Teaching preparation:

Study field is developed by a team of the department, together with practitioners. Among the team members are e.g. the manager of the VŠPJ Travel Agency (the Polytechnics own travel agency), an active guide, a former commercial director of a hotel chain, a chief executive of the regional tourist office.

The study program team consists of 11 academic staff members of the polytechnics and 9 external experts. They are involved in target setting for specific subjects. The content of the subjects and teaching methodology are developed simultaneously. The world of work requirements are incorporated and reviewed in five sub-study practices (5 separate placements).

The students attend two three-week traineeships in tourist facilities and other institutions, and in the final, sixth semester, a traineeship of 14 weeks. Furthermore, students are required to complete a two-week field learning placements directly led by the academic staff of the Department of Tourism.

Cooperation between places of work placements and Polytechnics are based on mutual agreements. At each of these placements, the student is guided by a professional teacher. Searching for locations of placements is the responsibility of students; however, the school is always ready to help through the school web portal "My placement". They can find the offers for placements and other formalities there. Companies and other organizations address the school and then the head of Tourist Department conveys these offers to students. In such a way the study subjects are developed in close collaboration with practitioners and teaching is focused as practically as possible.

RESEARCH AND DEVELOPMENT

An integral part of higher education studies is the research and development of students and academic staff. Research activities at the Department of Tourism are carried out mainly in the form of undergraduate work (Bachelor theses). These are usually based on the requirements of the world of work. The Department of Tourism issues the list of topics of theses developed in cooperation with academics and practitioners in order the result is practically usable.

Increasingly, there are demands for research and professional inquiries from institutions and companies operating in tourism. Examples of strong practical focuses of the research are: the marketing study Great Gifts (2008), the marketing study commissioned by the city of Telč (2013), or an analysis of tourism in Vysočina Region (2014) developed as a basis for a new strategy of tourism development in Vysočina Region till 2020. Based on the demand of the regionally funded organization Vysočina Tourism an extensive marketing survey conducted among visitors of selected locations in the Vysočina Region was launched in October 2014. The results were statistically analyzed and forwarded to the contracting authority in September 2015.

The Tourist Department is also actively involved in tour guide activities. In 2012, it organized in cooperation with the senator M. Vystrčil and MEP J. Fischer a seminar called "Actual problems of tour operators in the tourism sector in the Czech Republic". The discussion was attended by representatives of the Ministry of Regional Development (MRD), the Ministry of Industry (MI), the Association of Czech Travel Agencies, the Association of Czech Travel Agents, the Association of Hotels and Restaurants, MAG Consulting ltd., the Association of Guides of the Czech Republic, the Association of Guides and partner universities. Members of the department have been repeatedly asked to consult on tourism issues (tour operation or financing of tourism in the Czech Republic).

VŠPJ is a member of following professional organizations (contact persons being members of the Tourism Department):

• The Association of Hotels and Restaurants
• The Association of Tourist Guides of the Czech Republic
• The Association of Czech Travel Agencies
• The Association of Historical Settlements in Bohemia, Moravia and Silesia
• The Scientific Experts Tourism Company
The Tourism Department regularly organizes an international conference Actual problems of the Czech Republic Tourism (in 2015 it was the 10th year), where both academics and practitioners have space to present the results of their work and also a special student section is included.

3.4.2 CASE STUDY ON INSTITUTIONALISED CONTACT PROCEDURES - FROM COLLEGE OF JOURNALISM AND MEDIA, PRAGUE (VOŠ PUBLICISTIKY PRAHA)

One of the modalities of cooperation of institution and world of work is through institutionalised contact procedures with employers. Hereby follows an example of good practice, where such a cooperation is achieved especially for the internships through the DOVOS (Digital Online Verification of Skills) project that serves as a tool mostly, but not only for their innovative monitoring by all parties involved.

The College of Journalism and Media (VOŠP) is a professional tertiary school for practical studies of media in the centre of Prague. Due to its practical alignment as well as strategic location in the vicinity of major important Czech medial houses the school is profoundly involved in close co-operation with the employers and considers the facts as a high priority as well as advantage against other media educational institutions. During the internship process itself the system did not provide enough flexibility, planning depth, adaptability, on-site verification or professionally convenient evaluation. Not one to suit the dynamically fluctuating conditions of the media market.

VOŠP has therefore initiated a project within the Erasmus+ programme with the participation of partners from Great Britain (University of Saint Mark and Saint John) and Belgium (Leuven-Limburg University College and Thomas More University College) based on elaborate digital implementation of European Credit for Vocational Education and Training (ECVET).

In its essence, ECVET offers a system of quality and highly specific monitoring of skills, competences and knowledge within professional education and training, their detailed description to ensure international and inter-institutional communication and co-operation and their transferability within the European trade and educational market. It main field of applicability lies within the practical education and internships. ECVET, unlike the ECTS, is not focused only on the number of passed courses or the credit value of a given academic title, but also on a specific professional skill, competence and knowledge aimed towards a qualification framework (NQF and EQF alike).

The whole system is based on active participation of all three parties – the education institution, the employer (internship provider) and the student. Upon signing a memorandum of understanding the educational institution consults the internship conditions for individual students and each student receives his / her personalised protocol of work assignment, conditions and planned objectives and assessment criteria. The student, the employer and the school all have a specific vision of the internship and its evaluation.

To describe the skills, competences and knowledge, the Learning Outcomes (LO) are used. They represent detailed steps leading to achieving of the professional qualification. Within ECVET it is called the Unit of Learning Outcomes (ULO) and they are the main subject to monitoring during the internships. Due to their modular nature they could be freely adapted according to the conditions of a specific internship including the outcomes, description and evaluation. The digitalisation implemented through DOVOS (Digital Online Verification of Skills) project by VOŠP allows considerable process simplification of the whole system and innovation inclusion.

• First of all, the administration demands on institutions and students alike are greatly reduced. All templates are stored in the system and a new user is guided by a step-by-step process supported by help and methodical instructions.
• The system allows a framework template creation of ULOs which can be personalised through several field editing and reused for the same employer´s experience with slightly modified conditions. All with minimal source and time strains.
• Each LO is stored in the central database with reference to the ULO it has been used in. The database is accessible by every ULO creator. While creating a new ULO it is possible to refer to already existing LOs which significantly reduces the time and the school can monitor the usage frequency of specific LOs during the process of professional training.
• The system is linked to the Learning Management System used by the school. It is primarily designed for full Moodle implementation but the application programming interface (API) can be adjusted to other systems (e.g. BlackBoard)
• The employers' participation is significantly easier and more natural. After the memorandum and work specification the whole of internship preparation is shifted to the hands of the school. During the work

experience the employer assesses the students in accordance with the market requirements, i.e. whether the student has fulfilled the assignment or whether the quality of the work for the given company would be sufficient. The system then takes care of the evaluation, the Edu system impact and possible mark; it is not the responsibility of the employer.
• It has been evidenced that the terminology and system settings of ECVET could have a deteriorating effect on both employers and some schools as well. The DOVOS digitisation offers to every key player the corresponding user´s interface which is comprehensive for them. That leaves room for innovations, especially the following ones:

• The badge system. It is a visual representation of a specific professional qualification fulfilment. For the sake of understanding and transferability ECVET is built upon relatively small ULOs which may be still too marginal for the employers, furthermore they are often connected with methodical and didactic elements not necessarily relevant to the employer´s profession. By combining several ULOs together greater qualification units may be created which are closer in definition to a partial profession. This process not only brings about better understanding of the internship nature to the employers, allows creation of highly specialised and modular professional qualifications but also enables the employers a useful insight into professional orientation of the student. Each badge contains metadata with the name of the qualification, ULOs (or LOs) leading to the badge´s award, the people responsible for the badge´s award both from the school and the employer and a link to the portfolio where the qualification or skill is presented in the context of the student´s professional training and illustrated through examples (if applicable). Badges can be used by students in their CVs or portfolios.
• Professional digital portfolio. Due to the digitisation process the exportability of selected data is not only easy but also practical and motivational. The learners create their portfolio where they can store their passed ULOs, oral assessment of their lecturers and tutors, examples of the skills in practise and then group them according to their specialisation and professional inclination.
* Within the LO definition it is possible to work dynamically with competences, skills and knowledge, use their synergies and correlations between individual ULOs, to filter them in order to create skill, competence and knowledge frameworks.

• Soft skills and their application frameworks are a great challenge for any researcher on the field of competence framework. Besides the standard ECVET principle approach the DOVOS enables a digital monitoring of achieved LOs within the whole educational programme including internships and through their combination it is possible to create "higher" motivational and attitudinal skills and competences (highly praised by the employers) which the students achieve "inadvertently". With the help of a skill, competence and knowledge tree it is possible to motivate students, reward them and suggest an optimal studying path of the educational process leading to specific professional goals.

The DOVOS project offers a flexible and adaptable solution for practical education and training within formal and informal education of both primary and lifelong learning. It enables a high quality and precise internship preparation, its monitoring and transfer of the acquired competences, skills and knowledge into professional qualification. Thanks to the professional portfolio the employers as well as the institutions of further education can see what the learner truly mastered and which specific experience they have passed.

3.5 STRATEGIC TRIANGLE - FINDINGS FROM PRIMARY RESEARCH

This chapter presents findings from the three focus group discussions conducted with key partners of the strategic triangle - employers, providers and students. The participants as well as their organizations / institutions who took part in the study have been anonymized in the writings. Key themes from all discussions are outlined in individual sections below. The context of the workshops in the project is based on the stakeholders´ triangle of students, institutions, and employers. And in this way the workshop define their goals, interconnections and causalities.
Student workshop is prepared as a description of the situation in tertiary education with specific outputs and impacts on the system, including proposals for solutions to specific areas.

Tertiary education institution workshop is based on students' specific comments, classifies them into the system and highlights the sectoral, regional or other differences and specificities of institutions. Outcomes focus on

general descriptions of the situation and propose system modification or change.

Employer workshop confronts the above discussed general conclusions with the reality of the world of work and as body offering the placements for students. Critical evaluation of the system by employers hence restricts specific comparisons on only a few areas.

3.5.1 FOCUS GROUP - STUDENTS

This section presents a summary of findings from a focus group discussion with students studying HVE programmes. 19 participants from a college took part in the discussion. These students were all studying programmes of healthcare (the 3rd year of Bachelor programme of general nurse). These students were studying on both part time and full time basis. And some of them were funded by their employers. The duration of the discussion took approximately one hour and was digitally recorded and transcribed subsequently. This discussion was conducted as the very first workshop, therefore the idea was to focus specifically in details on one programme and to raise key topics for further discussions with providers and employers.

Systemic functionalities of cooperation with employers
Each higher education institution has its own individual method of cooperation, there are neither official instructions from the Ministry of Education, nor professional (in this case the Ministry of Health). The school has a list of partner institutions and signs cooperation agreement with those.
The only regulating rule is the accreditation file, which contains basic information about the length and time division of the learning experience. Certain courses are still subject to departmental / professional requirements – (e.g. the Ministry of Health provides detailed structure of placements for various courses - general nurse, midwife, etc.).
In opinion of students, is it satisfactory if the system of cooperation of school and world of work (placements) is determined by the school itself. Placements then better match the specifics of the field.

The importance of placement and work-based learning
The importance of the placement when choosing a college to study is more significant for those students who have worked already or are working in the field. And in this way they increase their qualifications

within the combined study (distance learning) or full-time studies in the individual study plan. It allows students to study and work simultaneously. However, the recognition of the already completed practice for working students is either inadequate or non-existent. These students must attend all of the study placement as well as students from the high schools who still have not gone through any of the placements. Graduates from secondary schools, as not having the placement before, are not so interested to the scope of placement as part of the studies. Other important factors are what other educational and training options are associated with the study (e.g. the possibility of Erasmus´ stays abroad).

Functioning and provision of placements
Organization of placement is good. However, the amount of hours of placement is too large. Still especially for students in combined studies are some types of placement unnecessary. These students already have their own focus and they find a completely different placement unnecessary. What is conceived as an important issue is the new mixture of qualifications. The general nurse has also a placement as a pediatric nurse while in the past these fields / qualifications were separated. Pediatrician, pediatric nurse and on the other hand general nurse and universal - family doctor (general practitioner). The combination of these two fields is considered by students as very bad and not reflecting the reality. The specificity of child care is very significant and very different from the general care. The choice of the place of placement is the responsibility of the student, they can choose on their own, or benefit from the offer that the school provides. This freedom fits students who live at other, remote locations from school. However, some colleges (mainly in Prague), have compulsory placement in the location of the school, i.e. in Prague. This is a problem especially for the commuting students during the holiday placement. Yet another issue is also the fact that the school prefers public hospitals to private clinics (e.g. esthetical surgery is not seen as a suitable type of placement). Moreover, the current shortage of nurses leads to nurse choosing to be trained in short term specialized courses, shorter than general qualification study. That is perceived as a step in wrong direction and lowering the level, because the shorter courses (even if they are multiple) do not add up to the whole complexity and larger context of the higher education qualifications.

Relevance of the placement content
The content of the placement usually corresponds to a future profession, but the problem is the aforementioned number of hours of placement at individual workplaces. It should be taken into account in the case of already working students, their already existing orientation. An important role in the learning experience of placement is played by mentors. This role is held by teachers or hospital staff - nurses. From the point of view of nurses - students of combined studies - this role is very burdensome and should be paid. The number of students per mentor should not be more than 10 people. It is better if the mentor is a nurse from the hospital, than the teacher.

From the training point of view, the theory should precede the placement, however sometimes it does not. The content of placement from the workplace point of view - hospitals should match the future orientation / focus of the students. They shouldn't perform work unrelated to the job descriptions of nurse (e.g. wash the dishes). Yet the auxiliary work is part of the actual work of nurses and thus are appropriate (e.g. wash the patients, changing beds, etc.).
Shortcoming is also the little opportunity to choose a specialization in the study e.g. in the context of optional courses. Small number of hours of optional courses prevents it. The solution might be shorter specialization courses.

School provision of preparation for the placement
School provides preparation for placement, also through education in specialized classrooms. In this respect, it is seen at the particular school a number of changes towards improvement. The work in the specialized classrooms should be organized in the small groups to get more students more often to different utilities.
Opinion on school staffing
The level of provision considering qualifications and experience of the teaching staff is adequate of a good quality. Professional training is provided by teachers from the world of work with sufficient qualifications.
Opinion on employer staffing
Hospital staff for the placement is good, but the problem remains in the person of mentor, which is especially needed by students with no prior experience of placement (e.g. on secondary level) or those who continue their post-secondary study after passing other than secondary medical schools. But this is a common problem at most universities.

This section presents a summary of findings from a focus group discussion with providers of Higher Professional Education. The responsible persons from the project as well as seven participants from different colleges took part in the discussion. They held varies job titles such as Vice Principal, Head of Studies, Directors / Deans of HE but broadly were responsible for HE provision at their colleges and sometimes especially for the relations with employers.

The institutions have represented both strands of profession higher education in the Czech Republic, tertiary professional schools as well as higher education institution of non- university type). The represented institutions offer study programmes in health care, humanitarian, technical, economic fields, as well as agricultural studies. The discussion took approximately six hours and was digitally recorded and transcribed subsequently. This discussion was conducted after the students' discussion and was more focused on the structural approach around 8 main topics as follows and the duration of which was approximately 6 hours.

Context status of educational institutions in terms of cooperation with the world of work
Institutions (both colleges - tertiary professional schools and Higher Education Institutions of the non-university type) deal with cooperation with the world of work partly autonomously, in accordance with accredited courses or programs, partly based on established EU regulations (health sciences). In general, there are differences between regions, between fields of study and also differences in the attitude of companies of placement. These differences are significantly affected by the size of the companies: there is a better relationship between big companies and schools than with small companies. They do not have the capacity to prepare the placement.
The position of the school is closely connected with the general orientation of the school in response to the demands of its environment. For a practically oriented school the aim is to supply the labor market with educated and especially employable graduates. This may be in accordance with the requirements of the region but in the current situation it is in conflict with the criteria of evaluation of a school.

Reflection on the labour market and the external environment
Are there important and less important employers? Experience suggests that large firms are not always the ones that are important. Their demands on graduates are often shaped by current problems. After its unwinding their requirements change. It is very risky for the school to orientate itself to such demands (e.g. upon reflection of curriculum content), mainly because the school can change targets only in a longer term period.

Management of institutions and study programmes
Study programs and institutional management of employers' contribution differ significantly, depending on the area. A significant percentage of employers are engaged in the management and design of programs in technical, medical and social fields. On the other hand, in economic fields, the proportion of employers involved in the management of the programs or courses of study is rather small. Indeed, when developing new fields or specializations, mainly in technical programs, the companies are involved significantly and specifically. The schools take over ideas from the world of work and this is reflected not only in the content of the fields, but also in the assignments and results of undergraduate or graduate works (theses).

Formally, there is a corporate involvement in school management and at board level of Higher Education Institutions and less frequently at the level of academic board. However, at this level, specific matters are not addressed.

Design and organization of the study and its practical elements (placement)
Organization of the placements is carried out in cooperation between schools and companies. Formally it is dealt with without any central rules. A school deals with this area by special departments, at the company level, the proportion of mentors to implement the placement learning experience differs. In the ideal form, the mentor in the workplace is a company employee with sufficient expertise and with contacts to responsible management of the school.

Length of practice and its content is prescribed in detail for the health professionals fields within the EU, in other cases it is included in the curricula. Placement schedule corresponds with sectors' specifics and is organized with regard to the requirements of the companies (work–based learning experience). The students should be

accommodated in case of a longer period of placement, which the school takes care of when looking for the placement location.

Usually the students can find relevant company themselves; however, this proposal must be then agreed upon by the school. Schools also offer places for placement on the basis of contacts with companies. Companies are motivated to create and offer placements generally as they then have a possibility to attract and choose future employees. The placement provides the companies with a chance to support students' profile on specific areas of expertise. Another motivation for them is the capacity to solve specific tasks within the student diploma or bachelor theses. In some areas the IT software used by the company can be spread through the students' placements. Practitioners from the world of work are also invited as lecturers in special seminars, acquainting students with various forms of future employment.

It is very important the actual contact with the companies where the placements are organized. Personal contacts of the staff involved at school managing this area are essential in this area. A specific topic is the placement of teachers. It faces various obstacles (finance, skills) but it is necessary to sustain a stable and professional teaching team. External experts cannot replace the core teachers; the school would lose its inner spirit and its image could be lost.

Quality Assurance
Quality assurance of study, placement and research and development is a challenge. The central evaluation of HEIs and their undergraduate programs (Bachelor) is based on the quality of research and development; very little importance is given to the quality of teaching/ learning and placements. It is very discriminatory for practically oriented schools.

Self-assessment leading to quality enhancement is not currently obligatory for colleges, at HEIS it is a part of their standard activities and should be addressed within an annual report. In the past, Czech Association of Schools of Professional Higher Education (CASPHE) used to run a system of self-assessment with a quality certificate for professional tertiary colleges (EVOS), however due to various reasons (including weak link to official, formal assessment and declining motivation and interest of schools) it slowly diminished its activity.

Research and development use different forms, they are evaluated centrally and the criteria are the same for all higher education institutions except for the schools of art. Within the business- institutional relations there are several innovative tools… e.g. a form of vouchers, issued by the companies.

Placement evaluation is formalized using the output that the mentor or the company issue after at the end of the internship. Besides, the formal part also contains suggestions for improving practice not only from companies but also based on feed-back of students. Still the share of students in quality assessment is inadequate, so the data can be sometimes biased (since there can be a lot of personal feelings towards the teaching staff). Should it be used more systematically, there would be a need to establish criteria and the areas in which assessment should to be conducted.

Strategic partnerships
Strategic partnerships have different forms depending on the specialization of the school, its tradition, its legal status, the school's region or community in which it is located. On a smaller scale, the company is a strategic partner, but quite often the region is the key strategic partner. Although this may be only a formal partnership, at smaller regional schools, on the contrary, such relationship can be of a great importance and may be reflected even in close cooperation when developing a school strategy.

The regional role of the school (third role) is more important in the regions than in the center. Still this role is often important for student when choosing the school to study.

Factors, expectations, communication, potential
The system does not allow focusing on the objectives of the school – e.g. the graduates' employability and readiness to work - because this does not represent any crucial aspect in terms of schools' performance evaluation.

There is a need in the shift in the measurement of the quality (Quality Assurance) of the curriculum with regard to the objectives of the school. While these may be determined, there are not realistic in terms of the current quality assurance mechanism. A partial solution may be benchmarking with other - foreign - institutions. Otherwise, the quality measurement is very difficult. One form of measuring quality is the evaluation of

teachers by students. Using such outcomes, however, faces the traditions and internal informal norms of the school.

Improvement is possible in working with alumni. Outcomes of such investigations are difficult to obtain but have significant predictive value.
The competence of the students is best reflected in the placement. The output from such evaluation can be used, especially if done in collaboration with a mentor, for innovation of study programs.

Suggestions for further development
• One of the proposals for changes to improve the situation is to increase the autonomy of schools when upgrading / innovating accredited programs. This would eliminate unnecessary lengthy and formally demanding accreditation processes.
• Also to strengthen another aspect of teachers' profile: professional competence. This is related to the mobility of teachers to relevant external institutions and it is limited by financial and personnel capacity (including potential lack of teachers' capacity for teaching).
• Questionnaire surveys to gather relevant data should be carried out in cooperation with experts who can draw up a questionnaire. If the school does not have such an expert, external cooperation is often beyond the financial possibilities of the school.
• Using innovative methods of evaluation encounters often inertia in teaching methodology. But there is wide range of methods and approaches that can be used. (Mutual student evaluations, individual or group evaluation).

A fundamental role in all the discussion and reality plays the fact that this form of practically oriented education should be legislatively better anchored. Even though, the role of vocational education and professionally oriented higher education in the world is still growing more and more.

3.5.3 FOCUS GROUP - EMPLOYERS

This section draws on findings from a focus group discussion with the employers. The duration of the discussion was approximately 1 hour and 15 minutes and was facilitated by two members of the research team. Two members of college staff also attended and contributed to the discussion.

The workshop was attended by a representative group of employers from the České Budějovice region and surroundings (Southern Bohemia). Relatively large group of represented companies have cooperated with VŠTE- Vysoká škola technická a ekonomická v Českých Budějovicích (Institute of Technology and Business in České Budějovice) for a long time, almost since the foundation of the school ten years ago.

The participants' reactions on the introduction of the BEEHIVEs project were relatively straightforward. In their view, the problem is in the system. Insufficiencies are based on the fact that Higher Education Institutions, but also secondary schools, train many graduates in the fields in which they then cannot find jobs. On the other hand, there is a lack of graduates with technical education. This attitude affects the responsiveness in the focus group.

On the other hand, it should be stated that in a particular case of VŠTE, the employers are greatly satisfied with the actions taken by the school. Furthermore, the responses to the workshop discussion points have been often influenced by the argument that present company representatives have already answered similar or identical questions many times before. Still they have not seen any significant change for the better in the past; hence there was a big part of the workshop spent on the utility of this particular project.
The discussion was digitally recorded and transcribed and the key themes stipulated at the discussion are summarized as under.

The importance of collaboration
The reasons for cooperating in the development of curricula (from design to accreditation) are motivated by the need of influencing the profile of graduates and their learning outcomes to ensure that the potential new employee is useful in practice.

Barriers in collaboration
Barriers in cooperation between schools and employers are primarily in the system settings. There are few technically educated graduates. Also, academically oriented Higher Education Institutions, which is the majority of the institutions, have no interest in working with the world of work.

Types of collaboration
Among the partner organisations for the employers they are not just the Higher Education Institutions, but

most of those present companies collaborate with high schools, including colleges (TPS) as well. The age of student at the placement is not a problem.

Forms of engagements

Contemporary forms of cooperation are aimed at ensuring placements; then further on the preparation of new fields of study and specializations to the needs of employers. In the case the school has the necessary technical and laboratory equipment, the cooperation has a deeper form and is more specific. The outcome is the school or student input into the innovations. In many cases, cooperation works both ways when companies provide facilities for vocational /professional training of students. Academics are undertaking work placements in companies and experts from companies enter into teaching in the form of expert lectures.

Solutions for overcoming the barriers

The participants see that when where there is cooperation with the school established, there are no big barriers that would need to be to be overcome. The problem is especially the small number of technically educated graduates (see above).

Fulfilment of labour market requirements

Fulfilling the requirements of the labor market from the side of the schools is limited by the number of suitable graduates (see above). The condition for the graduates´ career prospect is a previous placement. Its length is important, at least 8 to 10 weeks; a form of placement is different according to the field of study. The system of fulfilling the subject of professional training experience (placement) has been significantly modified to come closer to the company cycles – e.g. does not correspond with the academic year.

Efficient cooperation

Efficient cooperation is given by an active approach of school, its professional focus, technical and laboratory facilities.

The beginnings of cooperation are based on personal contacts between the two sides, the partners' recommendations on the employers' side and the awareness of companies about possible cooperation with the school.

Role of employers in strengthening the partnerships

Cooperation between the applied field and academia should consist of a wide range of activities on both sides.

The activity developed by the schools is currently being respected and more and more companies are getting involved in other activities as well. E.g. practitioners are taking part in expert committees, participate in cultural, social activities, and are becoming more responsive to the challenges in the field of scientific research, publications, etc.

There is a constant need for mutual communication between the two parties - backed by establishing various associations, unions - especially for higher bargaining/ leverage power towards policy makers.

3.6 SUMMARY AND CONCLUSIONS

The above report describes professional higher education (PHE) in the Czech Republic over more than the last two decades. There were a few milestones within the developments. The process started in early 1990s, but received an important impulse when the professional tertiary education was integrated as a standard sector within the educational system. However, a crucial phase for the PHE development within tertiary education dates back to the end of 1999 and the following years with the new Higher Education Act and expansion of not very diversified higher education, neglecting the potential of professional tertiary education. An important feature of paying more attention to professional aspect of higher education is linked also to emergence of private higher education institutions which had been usually assigned a status of non-university type of institution, while the public universities did not find appropriate motivation and conditions for such direction. Only in 2004 the first public university colleges according to the Higher Education Act of 1998 was established.

Currently PHE is represented primarily by bachelor programs at higher education institutions, professional tertiary school or degrees organized jointly by both types of institutions. There is also a rather limited offer of the Master's programs at HE institutions of non-university type. Doctoral programs for this type of schools are not allowed by law. It is difficult to identify professionally-oriented programmes at traditional universities although some have been accredited as such, but are not identifiable within statistic data. There are no shorter programs at European Qualifications Framework (EQF) level 5. The previous attempts to introduce such type of professional education have been neglected by both professional tertiary schools and

higher education representation; on the contrary the employers seem to be interested in such qualifications. Formally, the area of professionally oriented schools is defined by different legislative norms. The Higher Education Act for higher education and the School Act for professional tertiary education. The difference between university and non-university is quite vaguely defined, the new Higher Education Act amendment brought some new impulses – differentiation between academic and professional profile of study programs, but the consequences of such step have not been clarified yet. The School Act covers professional tertiary schools which offer programmes recognized as EQF level 6, but not having an official status of higher education. There is more specification as regards this type of schools, but still not sufficient. Inadequate definition of professional tertiary education sector, the lack of overall policy, goals and the consequent absence of specific evaluation criteria have been hampering more rapid development of this sector of education. The reform attempts after 2005 have tried to provide a complex, coherent approach, yet most of the topics have been gradually removed and at the end the focus remained on higher education.

Data on bachelor and master degree programs do not provide a completely accurate picture of the educational sector. From the available data it is clear that the number of students at Higher professional schools remain slightly declining for about 10 years, while the number of students in professionally oriented bachelor programs falling slightly only in recent years in the context of declining demographic curve on the eighteen-year level people after a previous massive expansion in the beginning of 2000s.

The employers´ engagement in the process of cooperation with institutions **may vary.** Since the colleges were from the outset closely linked to the cooperating employer, in this group of schools, the level of involvement with the practice is at a good level. In the case of Higher education institutions of the non-university type, the practical orientation of the studies differ depending on the field of study. In the fields of technical, medical and some other connection with practice it is more sophisticated and more numerous than the theoretically oriented fields. On the whole, however, the involvement of employers in cooperation with schools is **continuously improving.**

Our project workshops show that **collaboration between stakeholders** (students, institutions and employers), is on a **good level especially in technical and medical schools.** There is more space for study and practice and the conditions under which the practice runs are clearly defined. For theoretically oriented sectors the form of practice is adapted to the local conditions. Because there is not exact and detailed definition of the form of the practice (by the Ministry of Education), there is no unified system of practice evaluation. Usually this area is evaluated by both institutions and students and by employers - the places where the practice runs. Schools create their own systems of cooperation with employers, which leads to the application of employers' local conditions and specifics. In the form of relationship between the institution and the employer students are involved to varying degrees. They usually have the opportunity to find their own place of practice, and the institution must give its approval to this place. Student´s placement to practice is formalized in a contract between institution and employer.

The preparation for practice in school and vocational classrooms **shows a gradual improvement** of the conditions and facilities of laboratories. Here is positively reflected the relationship between the school and employers. This relationship is not on one side generally defined by the rules or laws, it works here because the local knowledge of the requirements of future graduates and from this resulting involvement of employers in the process of preparing new curricula and courses. Due to the complex and challenging process of accreditation of new fields the cooperation between schools and employers better promote innovation at existing fields and objects. On the side of schools is cooperation with employers usually secured by a separate department at the level of school management. Teacher´s personal contacts with employers play an important role. Another influencing factor is the knowledge of the local labor market conditions and traditions in relation to some employers. A person authorized to be the contact point within the school and for the group of employees – mentor - plays an essential role for the employers. His/her goal is to familiarize students with the reality of employees through the placement. Also in this case, the form of practice is arranged by agreement of both parties (employer and institutions) and is not determined by law or other regulation.

In preparation for the new fields and in the innovation of already implemented fields, and especially in compliance monitoring of the accredited conditions, "Accreditation commission" plays a crucial role. "Accreditation commission" is currently going through major reconstruction. The near future will show us to what extent the changes will be reflected positively on the development of vocational education.

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CHAPTER 4

CONTEXT OF COLLABORATION IN HVET IN GERMANY

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4.1 HVET/PHE IN GERMANY

4.1.1 BACKGROUND/CONTEXT TO HVET/PHE

The Federal Republic of Germany consist of sixteen federal states (Länder). The different responsibilities of the Federal Government and the various states are set out in the German Constitution (Basic Law). The Federal Ministry of Education and Research (BMBF) only creates general guidelines for higher education, each federal state makes their own legislation. Through this state sovereignty (cultural sovereignty – Article 30 Basic Law) the legal position of the HE institutions, their financing as well as the instruments of governance and management are regulated by the respective higher education act of the federal state. Universities are public corporations concerning mostly their budget, economic and staff matters. The annual budget is adopted by the respective federal states parliaments.

The education system in Germany is structured in different educational sectors: general education, VET, HE, and continuing education, in four educational levels (elementary, primary, secondary, and tertiary level) and in courses of education that are allocated to different education institutions. Internationally well known for its comprehensive system of dual vocational training – combining apprenticeships with formal schooling, lead to a strong institutional divide between vocational education and higher education. This phenomenon is described by an educational sociologist Michel Baethge as a so-called "education schism". These two education sectors were characterized with different curricular goals for a long time, teaching principles, governance mechanism and funding structures. A higher demand for high-skilled worker lead to an increase in higher level-degrees. Therefore mobility between VET and HE has been discussed. As in most parts of Germany, the relationship between VET and HE is one that remains highly impermeable and static (Powell and Solga, 2011a: 59).

In Germany the professional relation of university education is traditionally in a field of tension between traditional humanistic educational goals and utilitarian notions of an immediate professional usability of studies. Between those two extremes exist immense numbers of different views (Minks et al., 2011: 9).
To have a closer link between the world of work and higher education, new forms of institutions have been formed: Universities of Applied Sciences UAPs (Fachhochschulen; today Hochschulen) were integrated into the German education system in 1970. Their educational task is characterized by practical relevance in teaching and research with usually an integrated practical work-placement semester.

The first dual study programmes were initiated by the companies Daimler-Benz, Bosch and Standard Elektrik Lorenz (SEL) as the so-called "Stuttgarter Modell" in the beginning of the 70s which was pioneer of the university of cooperative education (Berufsakademie BA). Out of the BA the Baden-Wuerttemberg Cooperative State University (Duale Hochschule Baden-Württemberg DHBW) was founded in 2009. The DHBW is the first higher education institution in Germany which combines on-the-job training and academic studies and, therefore, achieves a close integration of theory and practice, both being components of cooperative education. The key feature of the so-called cooperative 'dual' education is that students regularly switch from their academic studies at the university to practical training by their workplace training provider (partner company). In Germany there exist now around 1.500 dual study programmes (undergraduate programmes) at UAPs, DHBW, BAs and even at a few universities.

The German VET system is divided in three major sectors, each having their own institutional structures: the dual system (the largest sector with in-company and school-based training), the vocational school system and the transitional sector (between general education schools and regular VET, where different types of vocational preparation competences are taught rather than a full vocational qualification.

The federal government is responsible for in-company vocational training and the federal states are responsible for vocational training in schools. VET is based on the consensus principle. Major decisions are reached in cooperation between the Federal Government and the federal states, employers and employees. Together with representatives of the municipal associations, the Federal Employment Agency (Bundesagentur für Arbeit) and the advisory council, are all members of the Federal Insitut for Vocational Education and Training´s Board (Board of the Bundesinsititut für Berufsbildung –BIBB), which represents the "round table" of VET. The BIBB focuses its research on the VET system.

In Germany, access to many occupational fields can be achieved through dual VET where other European countries require education at a HE institution. This is also one reason why the share of HE graduates in Germany is lower than in other countries. Further training qualifications like the Meister (master craftsman) and Techniker (technician) are important. Someone with such a further training qualification is regarded as a highly qualified worker and make up to 10 percent of the overall working population.

Postsecondary vocational education and training (VET) is designed for those seeking to achieve state recognised higher vocational qualifications above upper-secondary level. Two main sub-sectors were examined in this review. First, there are advanced vocational examinations regulated by the federal Vocational Training Act (Fortbildungsgänge nach dem Berufsbildungsgesetz) and in some cases also by the individual chamber regulations of the chambers of crafts and trades and of the chambers of industry and commerce (Fortbildungsgänge nach Ordnung der Handwerks- und Industrie- und Handelskammern). Second, there are trade and technical schools (Fachschulen) regulated under federal state law (Field and Fazekas, 2013: 13).
In June 2002 a Resolution by the Standing Conference on crediting of knowledge and abilities acquired outside higher education to a higher education degree course (Beschluss vom Juni 2002 zur Anrechnung von außerhalb des Hochschulwesens erworbenen Kenntnissen und Fähigkeiten auf ein Hochschulstudium) created a basis for allowing credits to be acquired even outside a HE degree course. In November 2003 the Standing Conference, the German Rector´s Conference and the Federal Ministry of education and Research made a joint declaration to credit high grades achieved in further VET examinations to a HE degree. This must be decided by each HE institution separately in each case. Procedures to credit those non-formal acquired competences to HE degree courses were developed and tested within a framework set by the so-called ANKOM project, counting vocational competences towards programmes of higher education (Anrechnung beruflicher Kompetenzen auf Hochschulstudiengänge). To further improve the permeability between VET and tertiary education a National Qualification Framework was created.

In Germany, in 2009 the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (Kultusministerkonferenz, KMK) agreed for the first time at a nationwide level that holders of a Meister (Master craftsmen) certificate should have general access to HE. In addition, holders of an initial VET certificate gain subject-restricted access to HE after three years of work experience and after successfully completing an aptitude test. Nevertheless the resolutions from the KMK are not legally binding and each federal state can decide differently. And grant the HE institutions to decide individually. Principle of Higher Education Institutional Autonomy (Hochschul-Autonomie). Target of the university´s educational reports (HS-Bildungs-Report) is to triple the number of entrants without an A-level certificate till 2020 compared to 21.800 entrants without an A-Level certificate in 2010. Another target is to double the number of entrants in dual study programmes to 8 percent. In order to stay competitive in the European Education Area, the expansion of the tertiary system in Germany is necessary. A declared goal of the Federal Government is the increase in student ratio to at least 50 percent of an age cohort (Krone, 2015a: 25). The rate rose to 46 percent since the mid-1990s by 20 percentage points, whereas the OECD average lies at 60 percent (Baetghe et al., 2014a: 2). A reason for this lower percentage in Germany is that in other countries vocational training in some professional fields was shifted to higher education at universities (Berthold et al., 2009: 9–10).

Another reason for this academisation are the changing job profiles and higher education requirements as a consequence of an increasingly knowledge- and human-capital- intensive work (Wolter et al., 2014: 16).

In 2011, for the first time, was the number of student entrants nearly the same as the number of new entrants to dual vocational training. This quantitative approximation shows the new constellation between the two main education sectors, which receives its numbers mainly by the demographic development (Baetghe et al., 2014b: 43). One reason is the loss of attractiveness of VET graduates when planning the professional future. Training paths in dual vocational education are viewed as less sustainable as an academic degree to make a professional career (Krone, 2015b: 52). Too little is known about whether or not VET students aspire to tertiary education and what obstacles they see in their way. There is not much data available on VET students

assessing their aspirations and perceptions of barriers with respect to further studies and transition to tertiary education (Baethge, Solga & Wieck, 2007: 63). (OECD, 2010: 49)

Within tertiary education, the number of workers with practical skills, such as Master Craftsmen (Meister) and Technicians (Techniker) as well as some jobs in healthcare, rose above average in Germany in 2012. The proportion of academics of total number of employed was 17,5 percent and therefore far less than the European average (EU-15: 22 Percent). The European average is also higher as practical tertiary education is often seen as an equivalent to an academic qualification in other national education systems (Baetghe et al., 2014a: 1).

The fusion of academic and professional activities means that more employees need (application-oriented) applied academic knowledge for their profession (Stifterverband für die deutsche Wissenschaft, 2016: 20).

4.1.2 QUALIFICATIONS THAT COMPRISE HVET/ PHE

• Technician   (EQF-level 6, ISCED-level 665)

• Meister / Master Craftsman   (EQF-level 6, ISCED-level 5A)

• Bachelor Degree   (EQF-level 6; ISCED-level 5A)

• Master Degree   (EQF-level 7; ISCED-level 5A)

Bachelor and Master Degrees with study programmes including work-based assessment. In Germany there are no further distinctions made in the degree form no matter if practical experience is part of the study programme or not.

Due to Bologna the degrees awarded by public UAPs, DHBW and BAs were upgraded as equal with university degrees (Ratermann and Mill, 2015: 99). Under the International Standard Classification of Education (ISCED) advanced vocational examinations and Fachschulen are at the tertiary level (5B). Other institutions which offer tertiary level vocational

programmes such as universities of co-operative education (Berufsakademien), co-operative state universities (Duale Hochschulen), vocational schools for the health sector (Schulen des Gesundheitswesens), and colleges of public administration (Verwaltungsfachoberschulen).

However, classifications may vary. For instance, Berufsakademien and Dualen Hochschulen are either at tertiary 5A or 5B level, and Schulen des Gesundheitswesens and Verwaltungsfachoberschulen are either listed as tertiary 5B or as postsecondary non-tertiary (tertiary 4A/B) (Field and Fazekas, 2013: 13). Universities of co-operative education (Berufsakademien) do not own the status of a HE institution. They award Bachelor degrees, which are not HE degrees, but regarded at partner companies as equivalent. A further Master degree at a HE institution is legally not directly possible.

4.1.3 POLICY CONTEXT

The 16 federal states in Germany have responsibility for legislation and administration in the areas education, science and culture. Its distribution between the Federal Government and the federal states is defined in the Basic Law (Article 30 => cultural sovereignty have the federal states) (Bundesministerium für Bildung und Forschung, 2013: 14) (Field and Fazekas, 2013: 10).

The Federal Republic of Germany consists of 16 federal states ("Länder"). In the context of the concurrent legislation (Art. 72 of the Basic Law), each federal state can adopt their own regulations deviating from the corresponding federal law. The federal government is responsible for the areas of university admissions and academic degrees.[34] The Higher Education Acts of the federal states describe the general objectives of the universities and the general principles underlying the HE system towards study, teaching and research, admission, membership and participation, as well as university staff. The rules apply to all HE institutions. They have the responsibility for legislation and administration in the areas education, science and culture.

[34] KMK (2013) http://www.kmk.org/fileadmin/doc/Dokumentation/ Bildungswesen_pdfs/tertiaerer_bereich.pdf, S. 143

The German education system is mainly formed by the Standing Conference of the Ministers of Education and Cultural Affairs (Kultusministerkonferenz), which was founded in 1948. Within the Federal Government, the Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung – BMBF) is primarily responsible in the educational sector and for research. Discussions between the Federal Government and the federal states take part in the Bundesrat, the Joint Science Conference (Gemeinsame Wissenschaftskonferenz – GWK), and the Standing Conference of the Ministers of Education and Cultural Affairs in the Science Council (Wissenschaftsrat). (Public) higher education institutions are institutions of the federal state. In addition, there are church-run or other privately run institutions of HE.

Education Law by the federal government:[35]
The federal government has limited legal influence on higher education and on the design of study programmes through the framework act for higher education (Hochschulrahmengesetz HRG) (Ratermann and Mill, 2015: 121). According to the new Paragraph 91b of the Basic Law, a general sustainable cooperation between the Federal Government and all federal states has been a new possibility since 2015.

Framework Act for Higher Education - Hochschulrahmengesetz (HRG):
Teaching and studying should prepare students for a profession in a certain sphere of activity, enabling them to acquire the particular knowledge, skills and methods appropriate to each course. And enable the students to perform academically and to act responsibly in a free, democratic and social state governed by the rule of law. Common objectives e.g. are in a practical application and closer links with the professional work for UAPs. It further regulates the admission regulations to higher education.

The purpose of study at institutions of HE is described in the following laws:[36]
* Bundesausbildungsförderungsgesetz (BAföG)
* Sozialgesetzbuch III (SGB III)
* Fernunterrichtsschutzgesetz (FernUSG)
* Betriebsverfassungsgesetz (BetrVG)
* Bundespersonalvertretungsgesetz (B PersVG)
* Ethik-Rat-Gesetz (EthRG)

Vocational Education and Training System
The success of the dual apprenticeship system is due

to the close partnership among all social partners. The legal basis is set by the Vocational Training Act (Berufsbildungsgesetz, BBiG). Social partners are: the federal government who recognizes the training, sets the requirements for training and examination and general training regulations. Each federal state issues the curricula for part-time vocational schools, finances the teaching staff and supervises the chamber activities. The industry is represented by the employer and the chamber of industry and commerce/German confederation of skilled crafts. The employer creates and updates the training occupations, nominates experts for training regulations and negotiates provisions in collective agreements like remuneration. The chamber advises stakeholders in training, supervises the training in the company, verifies the aptitude of companies and training instructors, registers training contracts and administers examinations.

The arrangements for the operational part of the dual education go back to the Basic Law (GG). According to the Basic Law, the federal government is, in the context of concurrent legislation, responsible for business law (GG Article 74 Paragraph 1 Nr. 11) and for labour law (GG Article 74 Paragraph 1 Nr. 12). Under these two fields fall also in-company vocational training of the dual VET system. As the federal government has exercised its constitutional power to legislate, the federal government therefore regulates federal laws and regulations such as in-company vocational training. The legal framework is uniformed nationally for the Vocational Training Act (Berufsbildungsgesetz BBiG) and specifically defined for the field of crafts in the Crafts Act (Handwerksordnung).

The Vocational Training Act (BBiG) however does not regulate the training at vocational schools within the dual vocational training system. The school system is, in accordance with the Basic Law Article 7 Paragraph 1 in principle, under state supervision. Since it is neither part of the exclusive legislative power under Article 73 of the Basic Law nor the competing legislation under Article 74 of the Basic Law, the federal states inherit the right to legislate (Article 70 Paragraph 1 Basic Law). Thus the federal states are responsible for the vocational school sector of dual vocational training.

[35] BMBF https://www.bmbf.de/de/gesetze-267.html

[36] BMBF (2013), Germany EQF Referencing Report, p.41

The school laws of the individual federal states provide therefore the legal basis for the school part of dual vocational training in vocational schools.

The federal state laws regulate sometimes very different who is actually at the age to enter vocational training and who is not. For dual students, compulsory vocational education does not always come into force. The reasons: firstly, students are not always employed as apprentices in the company and therefore do not need to complete their vocational qualification through an external examination at Chamber of Industry and Commerce (IHK) or Chamber of Handicrafts (HWK). Secondly, mature students are excluded from the compulsory visit of vocational school by the federal state law or freed due to the visit of a university at the same time (Ratermann and Mill, 2015: 113). Therefore, it is often the companies who decide by the contract structure if a vocational school must be involved or not. Depending on the federal state law, for a dual student in a regular apprenticeship, it might be compulsory to

visit a vocational school additionally to university and can often only be abrogated with a training or internship contract that is not formulated by the Vocational Training Act (Ratermann, 2015: 182).
At the moment there are 221 federal government regulations in place relating to advanced VET, inter alia 94 legal ordinances on master craftsman qualification in the craft trades and 48 legal ordinances on the requirements of master craftsman examinations.

4.1.4 PROVIDERS OF HVET/PHE

General objectives are that teaching and studying are to prepare students for a professional work and to give them the particular knowledge, skills and methods according to the relevant study programme. To enable the graduate to scientific or artistic work and to act responsibly in a liberal, democratic and social constitutional state. This aim is the same for each higher education institution.

Type of Institution	Numbers (2014/2015)
Overall	**427**
Universities	107
Teacher Training College (Pädagogische Hochschulen)	6
Theological College	16
College of Art (Kunsthochschule)	52
Universities of Applied Sciences	217*
Higher Administration College	29
University of Cooperative Education (Berufsakademie)	27

*nearly 50 Percent of UAP are private institutions

Type of institutions:[37]
• Universities, Teacher Training College and Theological College
All have the right to award doctoral degree; academic and scientific research, least practice-oriented study programmes. Aim is the vocational training of students in close connection with the scientific basic research or artistic development. Theological Colleges and Teacher Training Colleges (only exist in Baden-Wuerttemberg) are also equivalent to universities.
Professors must have a doctorate and habilitation or similar academic qualifications. Research is as important as research, both for the university and the professor, primarily basic research.
Some universities and many UAPs have developed, in addition, so called dual courses of study.

[37] Destatis (2015)

• College of Art and Music
Those colleges prepare for art and art-educational occupations. Teaching and studying are closely related to other tasks of higher education institutions, this means through the development of artistic forms and means of expression and serve through the free pursuit of art.

• Higher Administrative College:
It trains for the so-called higher level of the civil service, either maintained by the Federal Government or by a federal state.

• Universities of Applied Sciences UAP
UAPs have their own educational mission by a practice-oriented teaching, a generally integrated semester of work experience (Praxissemester) outside the polytechnics, practice oriented final theses and professors who have in addition to their academic qualification (doctorate), gained professional experience outside the field of HE for at least 5 years.
The teaching at UAP stands for staff and content related to application-oriented research and development as well as consulting services.

The function of UAPs to provide study opportunities for students with higher education entrance qualification through a vocational background. From 1985 till 2005, nearly half of the beginners at UAPs had done a vocational training before. In the beginning of the 90s it was sometimes around two thirds.

Since 2005 the number of vocationally qualified students has decreased at UAP. Nevertheless the number is still four times higher than at universities, where the number of vocationally qualified students is only one tenth (Baetghe et al., 2014b: 71).
Some universities and many UAPs have developed, in addition, so called dual courses of study.

• University of Cooperative Education (Berufsakademie BA)
As part of the training at state or state-recognized academies intended to provide a science-related education at the academy as well as a practical-oriented vocational education at the involved enterprises. University of Cooperative Education studies combine an apprenticeship with postsecondary-level teaching that represents a newer type of hybrid organisational form, bridging VET and HE (Powell and Solga, 2011a: 58). At state or state-recognized BAs, offered in some federal

states, and in participating enterprises, students receive at the same time academic as well as practical career training in the enterprises. Companies bear the costs of on-the-job training and pay the student a wage, which is most of the time also received during the theoretical part of the training at the study institution.

These kind of institutions do not own the status of a HE institution. They award Bachelor degrees, which are not HE degrees, but regarded at partner companies as equivalent. A further Master degree at a HE institution is legally not directly possible.

Dual study programmes introduce a new kind of entry route into HE as it is primarily the firm that selects the participants and not the educational organization itself (Graf, 2013: 116).

• Cooperative State University Baden-Wuerttemberg (Duale Hochschule Baden-Württemberg DHBW)
Founded on 1 March 2009, the Baden-Wuerttemberg Cooperative State University (Duale Hochschule Baden-Württemberg / DHBW) traces its roots back to the 40-year success story of the University of Cooperative Education (Berufsakademie Baden-Wuerttemberg). Today the university continues to carry on the acknowledged and highly successful model of cooperative 'dual' education.

The DHBW is the first HE institution in Germany which combines on-the-job training and academic studies and therefore achieves a close integration of theory and practice, both being components of cooperative education. The key feature of the so-called cooperative 'dual' education is that students regularly switch from their academic studies at the university to practical training by their workplace training provider (partner company). The DHBW is therefore an excellent example for a HVET/PHE institution. With around 34.000 enrolled students, over 9.000 partner companies and more than 125.000 graduates, the DHBW counts as one of the largest HE institutions in the German Federal State of Baden-Wuerttemberg. The university's official seat is in Stuttgart. Based on the US State University System, the organization structure of DHBW is unique in Germany for it comprises both the central (DHBW headquarter) and the local level (DHBW locations and campuses). Throughout its nine locations and three campuses, the university offers a broad range of undergraduate study

programmes in the field of business, engineering, and social work. All degree programmes are both nationally and internationally accredited, count as intensive study programs and are worth 210 ECTS credits. In addition, DHBW offers career-integrated postgraduate study programmes at its Center of Advanced Studies (CAS). University of Cooperative Education studies combine an apprenticeship with postsecondary-level teaching that represents a newer type of hybrid organisational form, bridging VET and HE (Powell and Solga, 2011a: 58). Dual study programs introduce a new kind of entry route into HE as it is primarily the firm that selects the participants and not the educational organization itself (Graf, 2013: 116). One secret of success of cooperative education is that they build on the already established structures of dual training and its raise on academic level. The systematic involvement of the cooperating companies is a critical success factor: one the one hand companies are responsible for the training and practice, can affect the design of the curriculum and affect the flow of the programme (Berthold et al., 2009: 26, 67).

• College (Fachschule)
Continuing vocational education at technical schools/colleges aim at professionals with general practical experience to enable them to reach for management functions in companies and to enable them to work and act independently and responsible.

4.1.5 COUNTRY PROFILE

The VET country profile from CEDEFOP visualised here gives a clear overview over the education system in Germany, starting with secondary level, post-secondary system and tertiary level. With a focus on the tertiary level, like the focus of the project BEEHiVES, the separation between VET and HE is visible. Even though the VET qualification Technician, Fachwirt, Meister (Master Craftsman), etc. are on the European Qualification Framework an EGQ 6, still for entering HE the graduate still needs to start on the same EQF-Level with a Bachelor Degree, nevertheless prior education may be recognized affecting programme duration (see also Chapter Background/context HVET/PHE).
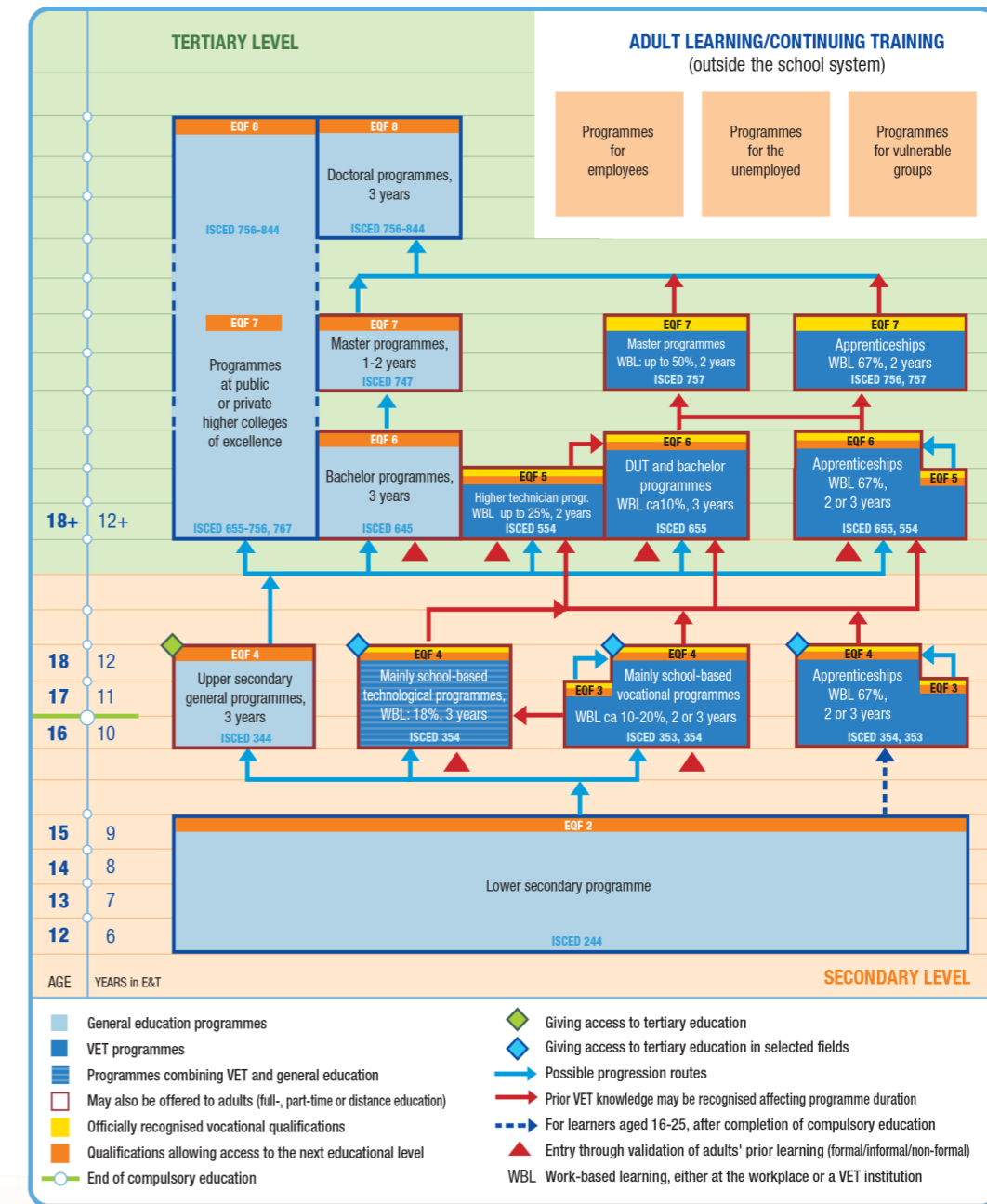
NB: ISCED-P 2011.
Source: Cedefop and ReferNet France.

Spotlight on VET in Germany
Source: http://www.cedefop.europa.eu/en/publications-and-resources/publications/4135

4.2 SYSTEMS OF HVET/PHE

4.2.1 HOW IS HVET/PHE FUNDED

State-recognized universities in private sponsorship
In addition to tuition fees, public funding, private funding through a sponsor and alternative business units such as Executive Education, they also use other sources of revenue.

Public higher education institutions
In Germany each federal state is responsible themselves for universities and therefore have to guarantee a basic funding. The federal government may co-finance in the field of research, in the field of teaching, however, only in exceptional cases. The German basic law GG Article 91b constitutes that the federal government is not allowed to give permanent money for education to the federal states. There are currently no more tuition fees at state-run HE institutions:[38]

Around 90 percent of the funding of higher education institutions are provided by the public sector, most of it by the federal state government (around 80 percent). The federal government funds through research projects, or via special programmes such as the Excellence Initiative, the Higher Education Pact, Professors Program etc.) (around 10 percent). Approximately 10 percent of the funds are from private sources. They result, largely, from the contract research, but they also include research funding by private donors (patronage), sponsorship of university activities and income from tuition fees/administrative fees.
As already mentioned, the great majority of funding for higher education is provided from public sources. As the institutions of higher education are public institutions of the federal states, consequently, their current expenditure for research and teaching (salaries, material and operating costs) are being primarily funded through the federal states budgets. Costs for larger investments such as buildings and large scale scientific equipment have been shared so far between the federal government and the federal states at fifty per cent each as part of the joint task of construction in higher education. Recently, a lengthy debated reform of federalism has been adopted by the parliament with the aim to demerge

the competences between the federal government and the federal states. As a result, the federal states will receive no funds for large investments from the federal government in the future.

Higher education pacts or contracts have been concluded between federal governments and universities. They grant planning security for the time of an election period, whereas, in return, the universities committed themselves to financial cuts to a greater or lesser extent; in some federal states, these funds are being reinvested into the higher education sector for strategic purposes.
The financing as well as the instruments of governance and management are regulated by the respective higher education acts of each federal state. Higher education institutions are incorporated in the state administration as public corporations, concerning particularly budget, economic and staff matters. The annual budgets are part of the federal state budget which are adopted by the respective federal state parliaments.

Technician
Public institutions only charge between 0-500€ per semester for materials depending on school, programme and state. Private institutions charge between 100-200€ per month.[39]

School	Number of in 2014/2015
Public	8.858
Private	2.166

Depending on what kind of programme is chosen by the student, applying for financial support by the state is always an option.

Master Craftsman
Public schools in Germany are funded by the state. Private schools receive their funding through monthly or annual student fees and donations/sponsoring by private donors or companies.

[38]http://www.hrk.de/themen/hochschulsystem/arbeitsfelder/hochschulfinanzierung/

[39]http://www.techniker-forum.de/wie-kann-man-sich-zum-techniker-weiterbilden (19.04.2016)

4.2.2 HOW IS QUALITY ASSURED

With the introduction of bachelor and master degree programmes in 1998, a build up for an independent accreditation system for those programmes started. Following the decision of the Standing Conference of the ministers of Education and Cultural Affairs of March 2002, the former coordination of studies and examinations was replaced by a system of accreditation of study programmes (programme accreditation). The aim of the accreditation is to guarantee academic content standards, compliance with structural guidelines and the review of the professional relevance of the degrees through a formalized and objectifiable process. Accreditation can also take the form of a system accreditation, which is subject to the internal quality assurance system of the higher education institution. A positive system accreditation certifies the higher education institution that the quality system in the field of studying and teaching fits the achievement of learning outcomes and the quality standards the study course has to ensure.

The Standing Conference of the ministers of Education and Cultural Affairs established an independent Accreditation Council (Akkreditierungsrat) which operates on behalf of all federal states as a foundation under public law since 2005.

The Standing Conference of the ministers of Education and Cultural Affairs adopted structural guidelines in 2003, amended in 2010, which form the basis for the accreditation. These set the framework for the planning of study courses, which should provide an academic foundation, methodological skills and qualifications related to the professional field corresponding to the profile of the HE institution and the study course. The courses are modularised and provided with the credit point system ECTS.

Data from December 2015:[40]
• 38 Universities, UAP, DHBW are system-accredited

• Overview accredited study programmes:

Type of Institution	# Accred. Study Programmes	With a practical semester	Dual system
University	2.255	7	37
UAP	2.671	282	729
College of Art	147	1	1
Sum	5.073	290	767

The following agencies are entitled to award the quality seal of the accreditation council:[41]
• AAQ - Schweizerische Agentur für Akkreditierung und Qualitätssicherung
• ACQUIN - Akkreditierungs-, Certifizierungs- und Qualitätssicherungs-Institut
• AHPGS - Akkreditierungsagentur für Studiengänge im Bereich Gesundheit und Soziales
• AKAST - Agentur für Qualitätssicherung und Akkreditierung kanonischer Studiengänge
• AQ Austria - Agentur für Qualitätssicherung und Akkreditierung Austria
• AQAS - Agentur für Qualitätssicherung durch Akkreditierung von Studiengängen
• ASIIN - Akkreditierungsagentur für Studiengänge der Ingenieurwissenschaften, der Informatik, der Naturwissenschaften und der Mathematik
• Evalag - Evaluationsagentur Baden-Württemberg
• FIBAA - Foundation for International Business Administration Accreditation
• ZEvA - Zentrale Evaluations- und Akkreditierungsagentur Hannover

[40]http://www.hs-kompass2.de/kompass/xml/akkr/maske.html (10.12.15)
[41]http://www.akkreditierungsrat.de/index php?id=agenturen,(07.07.2016)

Example of quality assurance at the DHBW through the Higher Education Act of Baden-Wuerttemberg – LHG §20a (4) Kommission für Qualitätssicherung und Fachkommissionen an der Dualen Hochschule[42] (Commission for quality assurance and expert commission of the DHBW): regulates the composition of the expert commission: the same number of representatives from professors of the DHBW as the representatives of the training centres and at least one student representative; for the composition of the quality assurance committee: chairmen of the expert commission and the elected student representatives.

To accredit a study programme, an expert group evaluates all the test methods for the relevant areas. This expert group consist also of a student representative with experience in university self-government and the accreditation.[43]

At an inspection of the education institution, students from the relevant study programme will be interviewed.[44]

Technician
The educational institutions are keeping close track of the development of the branch specific technologies and procedures, therefore the technician programmes are constantly being adjusted towards the current economic needs.

Master Craftsman
All crafts in Germany belong either to The Chamber of Crafts or The Chamber of Industry and Commerce. Every single craft business is obligated to become a member of its nearest representation of the relevant Chamber.[45] The representation system of the Chambers is structured like a political instrument. The hierarchy starts from the lowest local authority (guild/"Innung"), to a regional representation, to State representation up to the German Confederation of Skilled Crafts (ZHD[46]). All in all, there are 133 official Chambers in Germany (80 Chambers of Industry and Commerce; 53 Chambers of Crafts[47]). Due to this structure, the quality of the programmes is constantly on an up-to-date level. E.g., since 2012 the unemployment rate of professionals with a master craftsman certificate was constantly lower than the rate of the students with an academic degree.[48] The Board of the Federal Institute for Vocational Education and Training (BIBB) has implemented benchmarks for the structure and quality assurance of advanced VET in accordance with the Vocational

Training Act (BBiG) and the Crafts and Trades Regulation Code (HwO). These define three levels of advanced VET governed by federal law within the meaning of qualification stages offering development possibilities that are equivalent to a course of HE study.

4.2.3 WHO OWNS/AWARDS THE QUALIFICATIONS

The Higher Education Institution awards the bachelor and master degree. Vocational training degrees are awarded by the Chambers of Industry and Commerce and the respective college.

4.2.4 ROLE OF PROFESSIONAL BODIES

Generally at all kinds of HE institutions members of the employer side are represented in so-called Boards. The influence they have differs a lot depending on every state law as well as the institution and department itself. Generally the influence of the world of work on study programmes is lower at universities than at UAPs and DHBW. Nevertheless, this can differ between universities and their subjects. In many close to business subjects Honorary Professors are building bridges between the academic world and the business side.

[42]LHG Baden-Württemberg §20 a (4) http://www.landesrecht-bw.de/jportal/portal/t/4z8/page/bsbawueprod.psml?pid=Dokumentanzeige&showdoccase=1&js_peid=Trefferliste&documentnumber=1&numberofresults=1&fromdoctodoc=yes&doc.id=-jlr-HSchulGBWV19P20a&doc.part=S&doc.price=0.0#focuspoint

[43]Akkreditierungsrat (2013), Regeln für die Akkreditierung von Studiengängen und für Systemakkreditierung, http://www.akkreditierungsrat.de/fileadmin/Seiteninhalte/AR/Beschluesse/AR_Regeln_Studiengaenge_aktuell.pdf, p. 3, 20

[44]Akkreditierungsrat (2013), Regeln für die Akkreditierung von Studiengängen und für Systemakkreditierung, http://www.akkreditierungsrat.de/fileadmin/Seiteninhalte/AR/Beschluesse/AR_Regeln_Studiengaenge_aktuell.pdf, p. 8

[45]https://www.destatis.de/DE/ZahlenFakten/GesamtwirtschaftUmwelt/UnternehmenHandwerk/Handwerk/Methoden/Methodisches.html (15.03.2016)

[46]Zentralverband des Deutschen Handwerks

[47]http://www.zdh.de/organisationen-des-handwerks/handwerkskammern.html (14.03.2016)

[48]https://www.bmbf.de/de/master-oder-meister-1784.html (14.03.2016)

At UAPs Professors must have a work experience from at least five years and most keep their links with the business side.

At DHBW a Professor must have at least three years of work experience. External lecturers' world of work represents more than 50 percent of all study hours. The success of the dual apprenticeship system is due to the close partnership among all social partners. The legal basis is set by the Vocational Training Act (Berufsbildungsgesetz, BBiG). Social partners are: the federal government who recognizes the training, sets the requirements for training and examination and general training regulations. Each federal state issues the curricula for part-time vocational schools, finances the teaching staff and supervises the chamber activities. The industry is represented by the employer and the chamber of industry and commerce/German confederation of skilled crafts. The employer creates and updates the training occupations, nominates experts for training regulations and negotiates provisions in collective agreements like remuneration. The chamber advises stakeholders in training, supervises the training in the company, verifies the aptitude of companies and training instructors, registers training contracts and administers examinations.

4.3 DATA ON HVET/PHE

4.3.1 STUDENT NUMBERS ON LEVELS 5-8 EQF

Number of Bachelor Students[49]	overall 1.565.162	WiSe 14/15
Number of Master Students [50]	overall 437.770	WiSe 14/15
Number of Apprentices	overall 1.358.55	2014[51]

4.3.2 AGE GROUP
n/a

4.3.3 QUALIFICATION TYPES

Technician
Meister / Master Craftsman

Bachelor
• Bachelor of Arts (B.A.), Bachelor of Science (B.Sc.), Bachelor of Laws (LL.B.), Bachelor of Fine Arts (B.F.A.), Bachelor of Education (B.Ed.), Bachelor of Music (B.Mus.), Bachelor of Musical Arts (B.M.A)[52]

Master
• Master of Arts (M.A.), Master of Business Administration (MBA), Master of Science (M.Sc.), Master of Engineering (M.Eng.), Master of Laws (LL.M.), Master of Fine Arts (M.F.A.), Master of Music (M.Mus.)
• Further study master programmes:
Master of Public Management (M.P.M), Master of International Business (M.I.B), Master of Global Management (M.G.M), Master of Social Work (M.S.W), Master of Computer Science (M.C.Sc.), Master of Musical Arts (M.M.A.), Master of Business Law (M.B.L.).

[49]HRK (2015) http://www.hrk.de/uploads/media/HRK_Statistik_WiSe_2015_16_webseite_01.pdf, p. 22

[50]HRK (2015) http://www.hrk.de/uploads/media/HRK_Statistik_WiSe_2015_16_webseite_01.pdf, p. 22

[51]Statista (2015) http://de.statista.com/themen/57/ausbildung/

[52]http://www.bachelor-studium.net/bachelor-abschluesse.php

4.3.4 PROVIDER/INSTITUTIONS

• Bachelor and Master Degrees can be awarded by the following HE institutions

Type of Institution	Numbers (2014/2015)
Overall	427
Universities	107
Teacher Training College (Pädagogische Hochschulen)	6
Theological College	16
College of Art (Kunsthochschule)	52
Universities of Applied Sciences	217*
Higher Administration College	29
University of Cooperative Education (Berufsakademie)	27

*nearly 50 Percent of UAP are private institutions

• 445 Technical Colleges[53] (technician)
• Overview [54] of the master craftsman programmes in Germany.

All crafts are being divided into 2 Chambers; the Chamber of Crafts and the Chamber of Industry and Commerce.

	Chamber of Crafts	Chamber of Industry and Commerce
Amount of educational institutions	146	101

4.3.5 SUBJECT CATEGORIES

Technician
The number of programmes is not clear, since there is a numerous amount of specific/detail-oriented programmes. Common subjects include:

• Building Technique
• Chemistry
• Electrical Engineering
• Automotive Engineering
• Mechatronics
• Metal Construction
• Medical Engineering
• Biotechnology
• Computer Engineering
• Plastics Engineering
• Mechanical Engineering
• Environmental Engineering
• Food Processing Engineering
• Sanitary Engineering
• Composite Engineering

[53]http://www.techniker-forum.de/technikerschulen/ (19.04.2016)

[54]https://www.meisterschulen.de/meisterschulen-meisterkurse (14.03.2016)

Meister / Master Craftsman

	Chamber of Crafts	Chamber of Industry and Commerce
Amount of programmes	1798	773

In Germany there are currently 52 different crafts.[55]

Bachelor
• Overall 8.298 Bachelor study programmes (Wintersemester 15/16)[56]
• The HRK divides between the following subject areas:[57]

Study Area	Number of Bachelor Programmes
Agriculture and Forestry	91
Humanities, Sociology, Social Sciences	915
Engineering	1.828
Arts, Music, Design	702
Teaching, Pedagogy	1.304
Mathematics & Sciences	1.331
Medicine & Health Science	305
Linguistics & Cultural Studies	1.267
Economics	1.132
Law	130

Master
• Overall 8.099 Master study programmes (Wintersemester 15/16)[58]
• Further education (weiterbildend): 860 study programmes
• Consecutive: 1.561 Study programmes
• The HRK divides between the following subject areas:[59]

Study Area	Number of Bachelor Programmes
Agriculture and Forestry	103
Humanities, Sociology, Social Sciences	895
Engineering	1.513
Arts, Music, Design	702
Teaching, Pedagogy	1.304
Mathematics & Sciences	1.290
Medicine & Health Science	272
Linguistics & Cultural Studies	1.364
Economics	1.347
Law	222

[55]https://www-genesis.destatis.de/genesis/online;jsessionid=1046C-589CC98E85485F07AFC7ECE2B28.tomcat_GO_1_3?opera-tion=previous&levelindex=3&levelid=1458046000884&step=3 (15.03.2016)
[56]http://www.hrk.de/uploads/media/HRK_Statistik_WiSe_2015_16_webseite_01.pdf, p.7
[57]HRK (2015) http://www.hrk.de/uploads/media/HRK_Statistik_WiSe_2015_16_webseite_01.pdf, p. 12
[58]http://www.hrk.de/uploads/media/HRK_Statistik_WiSe_2015_16_webseite_01.pdf, p. 7, 19
[59]HRK (2015) http://www.hrk.de/uploads/media/HRK_Statistik_WiSe_2015_16_webseite_01.pdf, p.

4.3.6 MODE OF ATTENDANCE

Master Craftsman and Technician
• Full-time (compulsory attendance in schools, final exams done by the chamber of commerce)
• Part-time (courses at school are complementary, exams are done at the chamber of commerce)

Bachelor
• Full-time (at universities, UAPs, DHBW, etc.)
• Part-time, often combined with work-based training

Master
• Full-time (at universities, UAPs, DHBW, etc.)
• Part-time, often combined with work-based training

4.4 COLLABORATIONS/PARTNERSHIPS BETWEEN EMPLOYERS, STUDENTS AND PROVIDERS

In general, there are existing collaborations between employers, students and HE institutions. As mentioned earlier, at all kinds of HE institutions members of the employer side are represented in so-called Boards. The influence they have differs a lot depending on every state law as well as the institution and department itself. The influence of the world of work on study programmes is lower at universities than at UAPs and DHBW. Nevertheless, this can differ between universities and their subjects. In many close to business subjects, Honorary Professors are building bridges between the academic world and the business side.

The apprenticeship system in Germany is well developed which is part of the study programme at UAPs. Here also the professors need to have a work experience of at least 5 years outside from a HE institution and most keep their link to the business side. At DHBW a Professor must have at least three years of work experience. External lecturers from the world of work represent more than 50 percent of all study hours. In the following several examples show what kind of collaboration already exist in Germany, with one best practice example, stating that of course other best practices already exist.

Students influence
By Law as members in different committees, regulated either through the Higher Education Act of the federal state or the basic regulations of the HE institution. Student representations:

• Private and public forms of organisation
• In most federal states students of a university form a student body, who then elect a Student Parliament (StuPa), which determines the General Student Committee (AstA) as their executive body
• Student bodies differ from federal state to federal state, but also from university to university
• The main task is to represent the interests of the students towards the university, university administration and the general public. The task can differ from participation in appointment of professors, to management of social security contribution, semester tickets, cultural events to the university policy and political representation of students
• Constitutional (verfasste) student bodies, who as a corporation under public law or university constitution, are a member body of the university and can therefore represent the student´s interests on a statutory basis - not in all federal states
• At a department or programme level, the student bodies are divided in student body of a faculty (Fachschaften), for subject-specific issues
Throughout Germany there is a so-called voluntary association of student unions - Verein freier Zusammenschluss von Studentinnenschaften (fzs). Currently the fzs only represents about one third of all HE institutions

Dual Study Programmes and Systems
The innovative hybrid form is said to have the potential to play an important role in the development for skills in the 21st century, especially also regarding the shortage of skilled workers now and in the future (Graf et al., 2014: 11). A strong interaction between the HE institution, the world of work and the student who is at the same time an employee is key to success of these study programmes and systems. Various actors from politics, science and industry repeatedly emphasize the advantage of dual study courses and advocate for their strengthening. The supply of dual study programmes has increased significantly and stumbles upon a growing demand (Wolter et al., 2014: 13). Therefore, the boost of the strategic triangle (HE institution, student, employer), which is the focus of the project BEEHiVES, has an urgent need.

Employers
The employers' side, there are representing employers' interests three types of interest organizations. One of the major tasks of the employers' associations (Arbeitgeberverbände) is during the process of collective bargaining. The trade associations (Wirtschaftsverbände) are specialized in lobbying for business interests within the political system. The chambers of industry and commerce (Industrie- und Handelskammern, IHK) are responsible for a number of tasks of economic self-governance, such as the testing system for apprentices. (Graf, 2013: 94)

Generally at all kinds of HE institutions members of the employer side are represented in so-called Boards. The influence they have differs a lot depending on every state law as well as the institution and department itself. Employers are caught between three sides: the economic, the vocational and the higher education system, in which they operate at different levels. Within the VET system they act as a practical learning site and are interested in gaining high-educated young people for the company. As part of the economic system, enterprises are profit making entities which seek to minimize costs and maximize benefits. In the university system, they have different tasks: as a funder of research and development as well as knowledge mediators through participation in the teaching (Ratermann and Mill, 2015: 91).

Best Practice
The Study Programme Service Management at the Cooperative State University Baden-Wuerttemberg Heilbronn (DHBW), as an example for dual study programme:

The programme is full-time. After six semesters, the student graduates with 210 ECTS points. A further Master study at any HE institution is therefore possible. In order to get a study place the student needs to find a company as a partner for the dual study programme. The student is paid during the whole three years. Alternating work-based training every three months for the duration of three months, equivalent to overall 60 ECTS Points, which are around 30 Percent of his overall credits. The theory-practice transfer is assessed by a professor of the DHBW through:

• Project work I (20 ECTS points)
• Project work II (20 ECTS points)
• Project work III (8 ECTS points)
• Bachelor thesis (12 ECTS points) written during practical period
• Overall 60 ECTS Points.

Students evaluate each course twice a year. The results have influence, content-related, as suggestions of improvement which are part of the quality programme of the DHBW. Additionally, regular quality circles are held consisting of professors, external lecturers, students and representatives of the training companies. The training companies also regularly talk with key accounts, are part of the expert commission: quality assurance at the DHBW through the Higher Education Act of Baden-Wuerttemberg – LHG §20a (4) Kommission für Qualitätssicherung und Fachkommissionen an der Dualen Hochschule[60] (Commission for quality assurance and expert commission of the DHBW): regulates the composition of the expert commission: the same numbers of representatives from professors of the DHBW as the representatives of the training centres and at least one student representatives; for the composition of the quality assurance committee: chairmen of the expert commission and the student representatives. LHG §19 Senate, at the DHBW §19 (2) & §20 a (4), chairmen of the expert commission are members of the Senate, equally divided into representatives of professors and training centres.

40 percent of all teaching has to be done by a professor (who needs to have practical experience), therefore around 60 percent of all teaching is done by external lecturers (with certain requirements: university degree, practical experience and lecturer experience). Employer involvement as an official partner of the university, part of the expert commission (regulated by federal state law), part of committees, such as the quality circle.

[60]LHG Baden-Württemberg §20 a (4) http://www.landesrecht-bw.de/jportal/portal/t/4z8/page/bsbawueprod.psml?pid=Dokumentanzeige&showdoccase=1&js_peid=Trefferliste&documentnumber=1&numberofresults=1&fromdoctodoc=yes&doc.id=-jlr-HSchulGBWV19P20a&doc.part=S&doc.price=0.0#focuspoint

4.5 STRATEGIC TRIANGLE – FINDINGS FROM PRIMARY RESEARCH

This chapter summarizes the main findings from the three focus group sessions with the key stakeholders of the strategic triangle – employers, providers and students. The sessions were moderated by the DHBW Heilbronn and were held in April-June 2016. Each stakeholder group session was held separately and findings of the first workshop were discussed in the second workshop and so on (peer-learning approach). The key themes of the workshops are outlined below and in the individual sections.

Generally, the world of work is determined by life-long learning. In Germany the aspect of work-based learning and assessment is more and more integrated in academic higher education. The form and intensity of the integration is not only different at the different kind of institutions, but it is different at the same higher education institution systems, can vary within an education institution and depends highly also on the motivation of professors, employers and the students themselves. This gives a hint how complex the education system in Germany is. This was a well discussed point at the workshops itself.

New, successful didactic concepts link the experience of different places of learning and train academic competences at real work cases, such as problem-based learning, service learning / learning through engagement, case-based learning and learning in two or more places.

Additionally, the discussions of all three workshops make plain that higher education institutions have to meet the challenge to teach **technical, vocational and personality-oriented skills.** To meet the demands of the world of work all those three competence areas must be rethought for each subject. In all fields of competencies digital and social skills are playing a vital role as a form of transversal skills. In the future companies and other educational partners must take higher responsibility for higher education. They must build closer teaching and learning networks together with higher education institutions and students. Politicians are stipulated to support this institutional change by digging inhibitory rules and regulations and by establishing new incentive systems.

More and more vocational qualifications need academic qualifications (e.g. the health sector) as well as more and more academic qualification require professional knowledge. So one key result of the workshops was that the collaboration between the three stakeholder groups will get even closer in the future.

All discussions always came to the point of expectation. What are the expectations of the three stakeholder groups towards each other? Are the expectation met? If not, what are the gaps and how can they get closed will be further researched in Output 2 of this project.

Focus group - Employer

The six-hours workshop was held in April. Participants were representatives from the automotive supplier industry, fashion and trading industry as well as personal training.

One key aspect of the workshop targets was to identify forces that influence the cooperation between the higher education institutions and the world of work. Some of these are external forces, such as global developments, while others are inherent to the nature of higher education or enterprises. The forces discussed present themselves as drivers or inhibitors. Drivers work as catalysts, prompting or speeding up the development of cooperation. Inhibitors work as obstacles, impeding or slowing down cooperation efforts.

The globalisation is seen as a driving force for the export-oriented industry in Germany. It puts new demands on the core skills – communication, numeracy, problem solving, IT, entrepreneurship and cooperation – of all individuals, both as citizens and as workers. Exposure to tougher international competition forces companies to review their management, marketing and production strategies. This has changed the demands on new graduates, continues to change the demand on new graduates and will continue to do so in the future, as change has become a static feature of the business environment. The higher education faculties must keep pace with changes that are often detected first in the world of work. Therefore cooperation with enterprises is essential. Economic efficiency is always the focus.
Academic culture is often seen as an inhibiting force by the world of work. Progressive in its pursuits, academia tends to be conservative in its traditions. This is partly because limited access has always given an elitist element to academia. The world of work perceives that the world of learning has, quite justifiably, always been extremely protective of its independence and thus

distrustful towards any outside interference. Finally, typical education spending patterns show that, even today, higher education is privileged in comparison with other forms of education. It is therefore not difficult to understand that the demanding forces of change sometimes have difficulty finding a foothold in academia. Successful long-term partnerships between HE institutions and enterprises depend on the **institution management's willingness** to develop a new vision and introduce new core tasks. HE institution management needs to allow the necessary flexibility required for the execution of cooperation projects. There are often time constraints as a result of the heavy workload of teaching and research staff.
Another inhibitor is the different rational and common interests. Enterprises want **short-term success** on the market and are open to cooperation with HE institutions in order to have access to potential future employees. They are also interested in know-how and expert knowledge on innovative products and processes. HE institutions are much more oriented to the long-term, and are interested in innovative teaching and research in general. They have little entrepreneurial spirit, as their institutional environment does not require it.

Major drivers for HE institution – world of work cooperation include the need to transfer knowledge and technology and the need to recruit adequate human resources to be competitive and innovative in a global economy. The joint development of education and training for the labour market – promoting employability – is of common interest.

The company size is also crucial if cooperation takes place. When cooperation does take place, it is usually with large enterprises and industries because these have a critical mass of qualified staff who can find a common language with teachers and researchers, they have better equipment and infrastructure, longer-term strategies and more money to support the cooperation.

The representatives of the world of work stated that developing partnerships with HE institutions speeds up also innovation and supports the continuous enrichment of **knowledge and skills.**

Enterprises need graduates who can combine good professional knowledge with the social skills that are required in a professional environment. Companies often complain that HE curricula are too theoretical,

too academic and insufficiently oriented towards professional practice and experience. They look for graduates with good life skills, such as communication skills, team-working abilities, leadership skills, reliability, creativity, commitment, problem-solving skills, negotiation and decision-making skills, independent learning skills and flexibility. Closer cooperation between universities and enterprises can help students to develop these skills.

Higher education programmes must prepare students for **lifelong learning,** and provide them with the skills that will help them to cope with future changes. In order to be able to respond flexibly to emerging demands, HE institutions need to be in constant dialogue with the labour market. The major reason for the collaboration with HE institutions is to find a better match of prospective employees. The collaboration with students are seen as important to be able to form the student from the beginning on and to build trust to keep the student in the company. Students often have unrealistic expectations about their employment prospects. Higher education should focus more on conveying digital competences as part of the professional skills and of vocational skills, as well as in personal development. Employers demand from HE institutions new learning contents and formats in order to acquire the following competences:

• Close link between academic and professional knowledge ("interlinking")
• Possess professional basic knowledge and its practical use
• Be able to apply scientific methods and evaluate their application
• Be able to deal with the digital requirements in a professional field
• Be able to critically analyse and evaluate
• Act responsible, entrepreneurial and to acquire new knowledge
• Soft skills play a more important part nowadays in assessment

Collaboration with HE institutions have started to move beyond career services that sit isolated from teaching and learning to a model in which employability pervades the learning experience. Ways in which institutions can lead in the race to best ready students for work include:

• Curriculum design
provides a way of imparting employability through existing courses. Whether through the inclusion of vocational modules, or by means of sandwich courses, universities can create a link between academic work and the wider world.
• Institution partnerships
are means of actively collaborating with HE institutions to provide the professional work experience. Dual schemes are on the increase, with running such a programme with local employers.
• A strong career support service
integrated into learning, making use of manager, experts and industry links through both proactive partnership and alumni, gives a goto service for students.
• Building employability
into performance monitoring encourages institutions and students alike to provide and learn employment skills, and begin to build a career.

Employers see the need of more flexibility and changes in the curriculum mix itself. Nevertheless, this is strongly depended on the motivation of a professor who is responsible for the specific subject, the internal policies of higher education institutions, but also by the support from the employers.
An applicant with work-experience has an advantage towards those without any experience.

Those companies who take part in dual study programmes like that they have an influence on the theoretical education. The students are seen as the crucial link between the company and the HE institution. Nevertheless, is the influence on the curriculum not very high and companies would wish a more direct influence. At dual study programmes there always exist the dispute between specialisation and a wider focus during the vocational education. The specialized vocational education leads to positions such as a junior expert. A wider focus gives the student the possibility to operate more effectively in modern network companies.

Employers, who invest already in the dual study system by paying the student a monthly salary, see more need in staff appraisal to find more connection to the student, his future interests, his talents, etc.
=> More interaction of employers with students needed in order to keep the student in the company.
Time and limited resources are seen as the biggest barriers the companies have to overcome themselves.

Others are missing contact persons at HE institution and knowledge about different study programmes.

Focus group - Provider

The six-hours workshop was held on 8 June 2016. Participants were: one head of department for continuing training of a regional chamber of commerce, a dean of the department economic engineering of a technical university, a dean of the department service management of a dual study programme, a dean of UAP, a lecturer at a university of cooperative education, a responsible person for continuing training of a UAP and a teacher from a vocational school.

The validation of the workshop was afterwards held with a former president of the whole Cooperative State University Baden-Wuerttemberg.

The reason for HE institutions to collaborate with the world of work is to guarantee employability as well as self-marketing. This will get even more important in the future due to the demographic change in Germany and therefore fewer numbers of young people => a fight of HE institutions for the best student. Before it was the company and the HE institution who chose the student/employee. It already starts that the prospective student/employee is the one who has offers and therefore chooses between the different possibilities of study and for which company he is willing to work. Higher education institutions face an increasing diversity of the student body who demand for individual advice. This means that more staff hours are demanded for advising students individually. This guidance will become more and more in the future and this demand by prospective students must be fulfilled by the HE institution in order to be successful in getting the high performance students.

First year students are nowadays much younger in Germany than before due to shorter A-Level times and the elimination of military service after graduating secondary school. This is seen as one important reason why students tend to need more care and are more dependent and need more guidance. And soft skills are getting more developed during practical and international experience that mostly take place at the end of their studies.

The barriers of collaboration between HE institutions and companies are due to lack of time, dependence on motivation of professors and budget constraints. The

budget of public HE institutions is often not enough to employ one person who is responsible for the collaboration with the world of work. So there is often a limitation in human resources and therefore also in time needed to collaborate with the world of work. Personal contacts highly depend on the motivation of the professor to link those with his institution in order to maintain and extend those contacts.

Teaching staff from the world of work can bring theory and practical work closer together. This is mainly done already by universities of cooperative education such as the DHBW and BA. The same also counts for University of Applied Sciences, where the Professor needs to have at least five year of work experience outside from HE institutions. In order to get in contact with the world of work for a collaboration personal contacts of the professors are the key. A central unit as contact point would be desirable.

Enterprises are most of the time member of the university council and therefore can have an impact on the design of study programmes at early stages. The university council is the place where all three partner of the strategic triangle collaborate. Here new inputs, ideas, study fields and directions are discussed. Students, e.g. are not seen as the crucial candidate to work on the curricula, like in other countries. As a student they do not have the knowledge and experience to do so. Quality circles including members of the world of work and students are seen as important to guarantee an efficient study programme.

The number of dual study programmes in Germany rise year by year. Here the student is already employed in a company and gets a monthly payment most of the times even when he is at the university. A key reason why these study programmes are so successful is that enterprises in Germany have always had an investment character and of cause as well the steady labour market. This investment character has a long history going back to the middle ages. This early personnel commitment is a new way of staff recruitment. Dual study programmes are also the reason why places of study change from being sorely at the HE institution to other places lake in-house at companies, at vocational colleges, etc. as well as other HE institutions.

Sustainability is seen as one major factor of teaching success. Lifelong learning means as well to keep the competencies à jour. This means that the employee

should be flexible in order to develop. A graduate should have the basic knowledge from his study field. Other important competencies are application knowledge and methodical skills. Soft skills cannot be really educated and evaluated. Here dual students and students with an apprenticeship have a benefit, as soft skills and the other mentioned skills are shaped predominately during practical experience. Therefore, work-based assessment is a key driver of educating skills together with the education at the universities.

Cooperation with other HE institutions are seen essential, e.g. to supply double degrees, enhance internationalisation through cooperation in other countries, for UAP to enhance Phd programmes with universities. These are newer developments, as it is getting more and more difficult for an HE institution to have a distinctive feature especially under the UAPs. Expectation management necessary for all partners of the strategic triangle.

Comparability of educational level is still difficult in Germany between VET and HE, even though when they have the same European EQF Level. A German Master Craftsman is not allowed to study in the next higher EQF Level a Master degree, first a Bachelor degree must be awarded in order to achieve a higher EQF Level.

Focus group - Students

The six-hours workshop was held in June. Participants were current students of the Vocational College of Eisenach, Heilbronn University, TÜV Rheinland Academy, University of Kaiserslautern – Distance and Independent Studies Center and Baden-Wuerttemberg Cooperative State University Heilbronn. All students were enrolled in educational programmes, including focused practical elements as part of their educational training. The participants were also from different study programmes regarding degree (Bachelor and Master/MBA) and field of profession.

The validation of the workshop has been conducted through approaching several individuals in currently different dual study programmes.

Students see the engagement between companies and HE institutions as very important concerning up-to-date curriculum and trends, possible work prospects, internships and thesis. In their view the HE institution is responsible for providing the students with all the knowledge and competences that they need to find a

suitable job in their targeted field of profession after graduation.

Common barriers are especially the individual motivation to get in contact with HE institutions or possible companies. In Germany a high school graduate is 17-18 years old. Having a clear idea of what to become in life is rare, but at the same time there are high expectations. Those expectations can hinder some collaboration, especially with the world of work. Getting in touch with a company in the chosen field of profession can be difficult. Once the contact has been established, the potential student has to sell himself/ herself in a way, that the company is willing to spend the required money for the dual programme. Reaching common ground in this matter is challenging, especially when the applicant has high expectations but no real understanding of the world of work.

Information about study programmes is widely spread. Potential students can retrieve this information through several different channels. But having the information is only of little help to freshest high school graduates. The participants of the workshop mention a missing phase here. The employer (potentially in cooperation with the chosen HE institution) should have a more individual-oriented assessment of the potential students. Due to the young age, it was hardly obvious to the participants what profession to choose or what to expect from the one they chose. Implementing this into the assessment process, employers and HE institutions should be able to figure out not only if the applicant fits to the programme, but also which field of that programme would be most suitable for each individual.

This was seen to be a desirable beginning for an educational training programme from the participant's perspectives.
The coordination between theory and practical work hardly exists. The limited existing coordination is mainly superficial. The main agenda of this form of interaction is to take care of the existing collaboration between HE institution and a company. Students are not being viewed as an important element in this process. At some companies it seems that they struggle with the concept that their employee needs to go to university in between and is not available for the company during this time. This is especially the case, when the taught theory at the HE institution is not directly transferable or relevant to the working area of the student. The students

perceive this as strongly irritating and dissatisfying, since the time spent at the university seems to be of hardly any value to the real work environment. Here, the participants mentioned that they were of the opinion that the HE institution and the employer do not have any content related interaction whatsoever, since frequently, tasks at the work place have been generally discussed at the HE institution prior or after the task had to be done, but never simultaneously, which would have made a lot of sense. All these points have been mentioned during the workshop by the participants and have been agreed on.

Students most often chose to study at a higher education level to have a better job prospect. This is also the reason why many students want to achieve a Master's degree after completing the Bachelor. Achieving a Bachelor's degree is more or less a given in the current economy in Germany. Hence a Master's degree is absolutely necessary to improve one's appeal on the job market. Therefore, students of universities of applied sciences and other HE institutions are especially striving for a Master's degree afterwards.

An equivalent to the Bachelor's degree for craftsmen is the apprenticeship. Once it has been successfully finished, the craftsman has to achieve a further qualification, either a technician or a master craftsman, to be enabled to apply for higher positions. The general upside for craftsmen in Germany is the constant retrogressive development of the amount of trained craftsmen. Therefore the current labour market is in need of qualified professionals which makes it less relevant for craftsman to achieve a further qualification since an employment is almost guaranteed.
In contrast to the student's perception of the relevance of educational achievements, it became obvious to students of dual programmes that companies have currently more than just one focus. During the assessment processes the soft skills played an undeniable important role for the success of the interview. The participants of the workshop recapitulated that their previous educational achievements played a rather small role in their interviews with the companies. The employers emphasized the communication skills as well as the ability to efficiently perform in teams.

Students are often the ambassadors in initiating as well as strengthening the relationship between employers and HE institutions, when it comes to subject related interaction concerning the training of the student.

They are the crucial link of the strategic triangle. Organisation and communication structures within HE institutions concerning work-based training need to be improved. The existing structures do not show the necessary depth to guarantee a qualitative exchange of educational and training information between employer and HE institution.

This aspect can also be seen from a positive perspective. Participants of the workshop agreed on the suggestion that the missing cooperation also allows a lot of free space to act. The individual has all the options and is not bound to a pre-existing framework of regulations. This can be perceived as refreshing. Also, the institution as well as the employer are being ensured that the initiated process is based on actual interest of the student. Though this scenario might be unrealistic, it is an option that was briefly discussed during the workshop.

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CHAPTER 5

CONTEXT OF COLLABORATION IN HVET IN DENMARK

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EURASHE

5.1 HVET/PHE IN DENMARK

5.1.1 BACKGROUND & POLICY CONTEXT TO HIGHER EDUCATION

The organised apprenticeship training in Denmark was started by the guilds in the middle Ages. They were later followed by the apprenticeship schools. In 1857 the Freedom of Trade Act changed the guild-based system and their monopoly on apprenticeship training. New technical colleges were established by the associations to guarantee the skills of the trades. They were supported by the national and local governments, who provide them with grants and brought in the contracts between master and apprentice.

The Association of Technical Schools was the first association to provide a common framework for the curriculum development. Later changes were implemented by developing the associations into national federations and by founding the national employer association. These organisations are still key players in the field.

Later the trade committees guaranteed the quality and working conditions of the training programmes. In 1956 the trade committees' position in the trainings was solidified by a new act, which demanded that they need to be consulted on the content of the curricula. The Act on basic vocational education (Lov om erhvervsfaglige grunduddannelser) was introduced in 1977, which improved the position of VET and apprenticeships during the high youth unemployment during the oil crisis. Due to the changes the old system continued to exist parallel with EFG. In 1991 a wide-reaching reform was introduced, which unified the two different systems.

Reform 2000 was introduced in Denmark at the beginning of 2001, which improved the access from VET to higher education and increased flexibility. Another major change to the system was the introduction of new apprenticeship (ny mesterlære) in 2006, which targeted practically-oriented young people who struggle with the more 'academic' aspects of school-based training programmes. The recent reforms also include the division of study programmes into 12 main areas and new learning objectives in 2008.[61]

In July 2007, the Danish Parliament passed a new law regarding the Danish university colleges. The Ministry of Education under Section 50 of the Act on university colleges established eight university colleges, which were established in January 2008.[62]

A proposal for the Danish national qualifications framework was approved in 2009 to place existing qualifications in the framework completed at the end of 2010.[63]

5.1.2 HVET IN DANISH QUALIFICATION FRAMEWORK

The Danish VET is divided on two levels; secondary VET and tertiary VET. This country report focuses only on presenting the tertiary level.

Tertiary professional higher education
• Academy professional programmes
  - Erhvervsakademi (Erhvervsakademiuddannelse, erhvervsakademier): Academy of professional higher education
• Professional Bachelors'
  - University Colleges: Professional Bachelors'[64]
The Danish tertiary HVET consists of mainly two different types of education programmes:
• Short-cycle higher education programmes (kort videregaende uddannelse, KVU) lasting two to two and a half years, offered by the nine business and technical academies (erhvervsakademi)[65] resulting in award of an academy profession degree (erhvervsakademigrad, AK), which can be upgraded to a professional bachelor's degree.
• Medium-cycle professional bachelor programmes lasting three to four years are generally offered by seven university colleges[67] award professional bachelor's degrees and are development-based and combine theoretical studies with a practical approach. A professional bachelor's degree can provide access to certain university-based master's programmes.

[61]CEDEFOP:2012 pp.76-78
[62]https://en.wikipedia.org/wiki/University_colleges_in_Denmark
[63]CEDEFOP:2012 pp.80-82
[64]CEDEFOP:2012 p.85
[65]Established 1 January 2009.
[66]Established on 1 January 2010 from existing colleges from various areas. In addition to these seven university colleges, two engineering colleges and the Danish School of Media and Journalism can award professional bachelor's degrees.
[67]CEDEFOP 2012: 35-37

Apart from theoretical subjects, programmes are usually completed with a project examination and always contain some degree of workplace training.

Professional higher education – Adult education
Further adult education (Videregående voksenuddannelse, VVU) provides qualifications equivalent to an academy profession degree and is offered at business and technical academies. In addition to previous education two to three years of relevant work experience is required. The study programmes are shorter due to the previous work experience of the students. The studies in adult education are equivalent to one year of full-time study, compared to between two and two and a half years for mainstream academy profession programmes.

VVU programmes are offered as part-time, so the actual duration is between two and three years and the students must complete the programme within six years. A total of 20 VVU programmes are offered including areas such as retail, interpreter, international transport and logistics, and information technology. Both VVU qualifications can provide access to a supplementary diploma degree programme allowing graduates to build on an academy profession degree up to a professional bachelor's degree within the same field. VVU qualifications also provide access to relevant full-time professional bachelor programmes.[68]

5.1.3 POLICY CONTEXT

In Denmark secondary VET (IVET and CVET) falls under the Ministry of Education.
Tertiary level (the Academy Profession degrees and Professional Bachelor's degrees) education belongs to Higher education under the Ministry of Higher Education and science and is ruled by the legislation and rules of higher education.

• Danish Act on Admission Regulation concerning Higher Education Degree Programmes (Lov om adgangsregulering ved videregående uddannelser)
• Ministerial Order on Admission to and Enrolment on Academy Profession Degree Programmes and Professional Bachelor's Degree Programmes[69]
• Consolidation Act no. 583 of 1 June 2014, as amended by Danish Act no. 1377 of 16 December 2014

• Act on vocational education and professional education 2014 (Lov om erhvervsakademiuddannelser og professionsbacheloruddannelser LBK nr 1147 af 23/10/2014)[70]
• Act on the Danish School of Media and Journalism

5.1.4 RECENT KEY DEVELOPMENTS

Until autumn 2011, the responsibility for higher education was largely divided between the Ministry of Education (KVU and professional bachelor's degrees) and the Ministry of Science, Technology and Innovation (universities). The ministerial restructuring of the government moved the tertiary education under the jurisdiction of the Ministry of Science, Innovation and Higher Education. It was hoped that this would aid permeability at tertiary level.[71]

5.1.5 QUALITY ASSURANCE

Previously the quality assurance of the studies was done by EVA (Danish Evaluation Institute), but since the new accreditation Act for higher education institutes in 2013[72] it's done by The Danish Accreditation Institution (Danmarks Akkrediteringsinstitution) for EQF levels 5 and up.
5.1.6 Short-cycle professional higher education

In August 2000, a new act on short-cycle higher education (Act no. 1115 of 29 December 1997) was implemented, making the access routes broader and more transparent, with better possibilities for the students of being awarded credits in a medium- or long-cycle higher education programme.
15 academy profession (erhvervsakademi) programmes were replaced the previously existing 70 short-cycle programmes of varying lengths between 1 and 3 years. In many cases, this meant extending the course from 1½ to 2 years.

[68]CEDEFOP:2012 pp.44-45

[69]http://www.au.dk/fileadmin/www.au.dk/Regelsamlingen/2016/Bekendtgoerelse_85-da-en_gb-R2-C.pdf

[70]https://www.retsinformation.dk/Forms/R0710.aspx?id=165188

[71]CEDEFOP 2012: 35-37

[72]Lov om akkreditering af videregående uddannelsesinstitutioner (LOV nr 601 af 12/06/2013)

5.1.6 MEDIUM-CYCLE PHE

In 2000 the Act on medium-cycle higher education created a common framework for all of these programmes. One of the main features of this reform was the creation of the title of professional bachelor indicating a similar level of education than the University Bachelor combined with a stronger focus on professional practice.[73/74]

In 2012, the Danish government decided that Danish university colleges were granted access to conducting research and funded the sector with DKK 1 billion (EUR 133 million). In addition, university colleges were given the opportunity to employ high-profile researchers, introducing a new post for senior associated lecturer.[75]

5.1.7 ADULT EDUCATION AND CONTINUING TRAINING

The adult education and continuing training system has undergone several reforms to make it more flexible, demand-led and oriented towards enterprise needs.
• The 2003 reform saw a shift to a competence-based system where around 130 joint competence descriptions were drawn up by the social partners, in cooperation with the Danish Ministry of Children and Education.
• In 2007, a legal framework was implemented for recognition of prior learning within adult education and continuing training.[76]

5.1.8 ACCREDITATION

The new Accreditation Act came into force on 1 July 2013 and stated that the task of accreditation will in future be based on institutional accreditation and established a framework for accreditation of programmes.[77]

The accreditation process for new programmes for which applications were submitted during the application rounds that had deadlines before twill be accredited in pursuance of the previous accreditation system and the former guide. This applies to universities and the professional and vocational areas.[78]

6. Qualifications comprising HVET & PHE
As mentioned in the previous chapter, the Danish professional education framework has professionally-oriented short- and medium-cycle programmes.
• Academy profession degrees (level 5)
• Professional bachelor (level 6)
  - Either a 3- or 5-year, full-time programme or a 1 or 5 years top up on an Academy profession degree

Both degrees are regarded as higher education and have to follow the law for higher education accreditation.[79]

Danish level	Ordinary Higher Education	Adult/ Continuing HE	EHEA QF (Bologna)	NQF /EQF
Academy Profession	Academy Profession degree (90-150 ECTS)	Academy Profession degree (akademi-ud-dannelse) (60 ECTS)	Short cycle	Level 5
Bachelor's	Professional Bachelor's degree (180-240 ECTS)*		First cycle	Level 6

[73]http://ufm.dk/en/education-and-institutions/higher-education/degrees-and-qualifications/reforms-and-previous-systems

[74]https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Denmark:Specific_Ongoing_Reforms_and_Policy_Developments_at_National_Level

[75]http://www.cedefop.europa.eu/en/news-and-press/news/denmark-university-colleges-strengthen-vocational-education-and-training-vet

[76]CEDEFOP:2012 pp.37-39

[77]http://en.akkr.dk/accreditation-in-denmark/legal-framework/

[78]http://en.akkr.dk/accreditation-in-denmark/new-programmes/

[79]CEDEFOP: Vocational education and training in Denmark Short description

5.1.9 ACADEMY PROFESSION PROGRAMMES

Academy profession programmes are professionally oriented, qualifying higher education programmes, awarded normally after 2 years and are equivalent to the first 2 years of a bachelor degree. Academy profession programmes combine the theoretical studies with a practically oriented approach in form of mandatory work placement for a minimum of three months. Academy profession programmes are oriented towards specific professions or job functions. Most programmes are awarded after 120 ECTS.[80]

There are approximately 27 vocational academy profession programmes in the following fields:
• Business and Economics
• Technology, Information technology
• Laboratory technology
• Social sciences
• Design and Healthcare
The academy profession programmes provide the graduates with knowledge and understanding of practice within the field of applied theory and methodology to a level that qualifies the students to independently analyse and assess problems as well as perform practice-oriented business functions.

Admission requirements
General access requirements for the academy profession programme are general upper secondary education or relevant vocational education and training, supplemented by adequate general upper secondary courses.[81]

5.1.10 PROFESSIONAL BACHELOR PROGRAMMES

The Professional Bachelors' programmes are awarded normally after 3 to 4 years and a half of study (180-240 ECTS points) at a level corresponding to university bachelor programmes, but with a stronger focus on professional practice. Professional bachelor programmes combine theoretical studies with a practically oriented approach in form of mandatory work placement for six months.

There are approximately 85 professional bachelor programmes in the following fields:

• Healthcare
• Pedagogy
• Business and Economics
• Information technology
• Technology
• Media and communication
• Social sciences
• Design

Admission requirements
General access requirements are one of the general upper secondary school leaving examinations or comparable qualifications. Access may also depend on specific requirements such as a particular subject combination in upper secondary school or a certain level of grades. Admission to certain programmes requires entrance examination.[82]

Danish qualifications levels	Ordinary higher education degrees	Adult/continuing higher education degrees	Qualifications Framework for the European Higher Education Area - Bologna Framework	European/National Qualifications Framework for Lifelong Learning - EQF/NQF
Academy profession level	Academy Profession (AP) degree (90-150 ECTS)	Academy Profession (AP) degree (60 ECTS) (also known as Further Adult Education (VVU) degree)	Short cycle	Level 5
Bachelor's level	• Professional Bachelor's degree (180-270 ECTS)* • Bachelor's degree (within the arts) (180 ECTS) •Bachelor's degree (180 ECTS)	Diploma degree (60 ECTS)	First cycle	Level 6
Master's level	• Master's degree (within the arts) (180-270 ECTS) • Master's degree (120 ECTS)**	Master degree (60-90 ECTS)	Second cycle	Level 7
PhD level	PhD degree (180 ECTS)		Third cycle	Level 8

* Can be obtain through a full regular bachelor's programe (180-270 ECTS) or a top up bachelor's programme following an Academy Profession degree

** A few Master's programmes are up to 180 ECTS

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Ownership of qualifications

The institutions giving out the qualifications owns them.

7. Providers of HVET & PHE

[80]http://ufm.dk/en/education-and-institutions/higher-education/business-academies/academy-profession-programmes

[81]http://ufm.dk/en/education-and-institutions/higher-education/business-academies/academy-profession-programmes

[82] http://ufm.dk/en/education-and-institutions/higher-education/university-colleges/university-college-educations

[83] http://ufm.dk/uddannelse-og-institutioner/anerkendelse-og-dokumentation/dokumentation/europass/diploma-supplement/standardbeskrivelse-af-higher-education-in-denmark/ds-standardbeskrivelse-pdf

5.1.11 TYPE OF INSTITUTIONS

The academies of professional education/Business Academies

The academies of professional education (Erhvervsakademi) were separated from vocational schools by law in 2008. In 2010, all academies became independent institutions and the connection to the university colleges was removed by the legal changes in 2013. The Academies must offer courses in the technical and commercial field (i.e. for the private sector) whereas the university colleges must focus on the public sector's needs. At the same time the business academies have an obligation to carry out applied research which benefits the students and companies. They are to ensure a broad geographic coverage throughout the country and help to fulfil the objective of providing at least 60 per cent of all young people with a higher education. Business academies function as regional knowledge institutions in close dialogue with regional stakeholders.

The organisation of business academies is based on a vertical management structure with board. The board has the general and strategic responsibility for the quality and development of programmes at the institution. The management of the institution also includes the responsibility for educational activities, efficiency and economy. Besides academy profession programmes, a business Academy can provide degrees at the first-cycle level (professional bachelor programmes), primarily top-up-programmes).[84]

University Colleges

University colleges (Professionshøjskoler) offer profession specific tertiary education and diploma courses, up to a professional bachelor's degree. The university colleges are independent institutions, mostly regulated by the Act on University colleges of higher education. (Except for the Danish School of Media and Journalism) The organisation is a vertical management structure with a board. The board has the general and strategic responsibility for the quality and development.

A large part of the professional bachelors are employed by the public sector, but programmes in engineering, information technology, business and media and communication are aiming at the private sector.

The university colleges offer primarily first-cycle higher educational programmes, i.e. professional bachelor programmes and diploma programmes. University colleges are expected to contribute to national and regional growth, and the development of sectors and professions. University colleges must ensure that the education programmes' knowledge base is profession-based as well as development-based. University colleges also function as regional knowledge institutions in close dialogue with regional stakeholders.[85]

[84]http://ufm.dk/en/education-and-institutions/higher-education/business-academies/about-the-business-academies

[85]http://ufm.dk/en/education-and-institutions/higher-education/university-colleges/about-the-university-colleges

5.1.12 COUNTRY PROFILE

The Danish HVET is composed of study programmes on EQF levels 5 and 6 and under the jurisdiction of the Ministry of Higher education and Science. The professional studies on these levels include Professional bachelor's programmes and Academy professions programmes. EQF level 5 also includes some further adult education programmes and EQF 6 Diploma programmes.

The Danish VET studies are considered secondary level studies and are under the jurisdiction of the Ministry for Children, Education and Gender Equality.
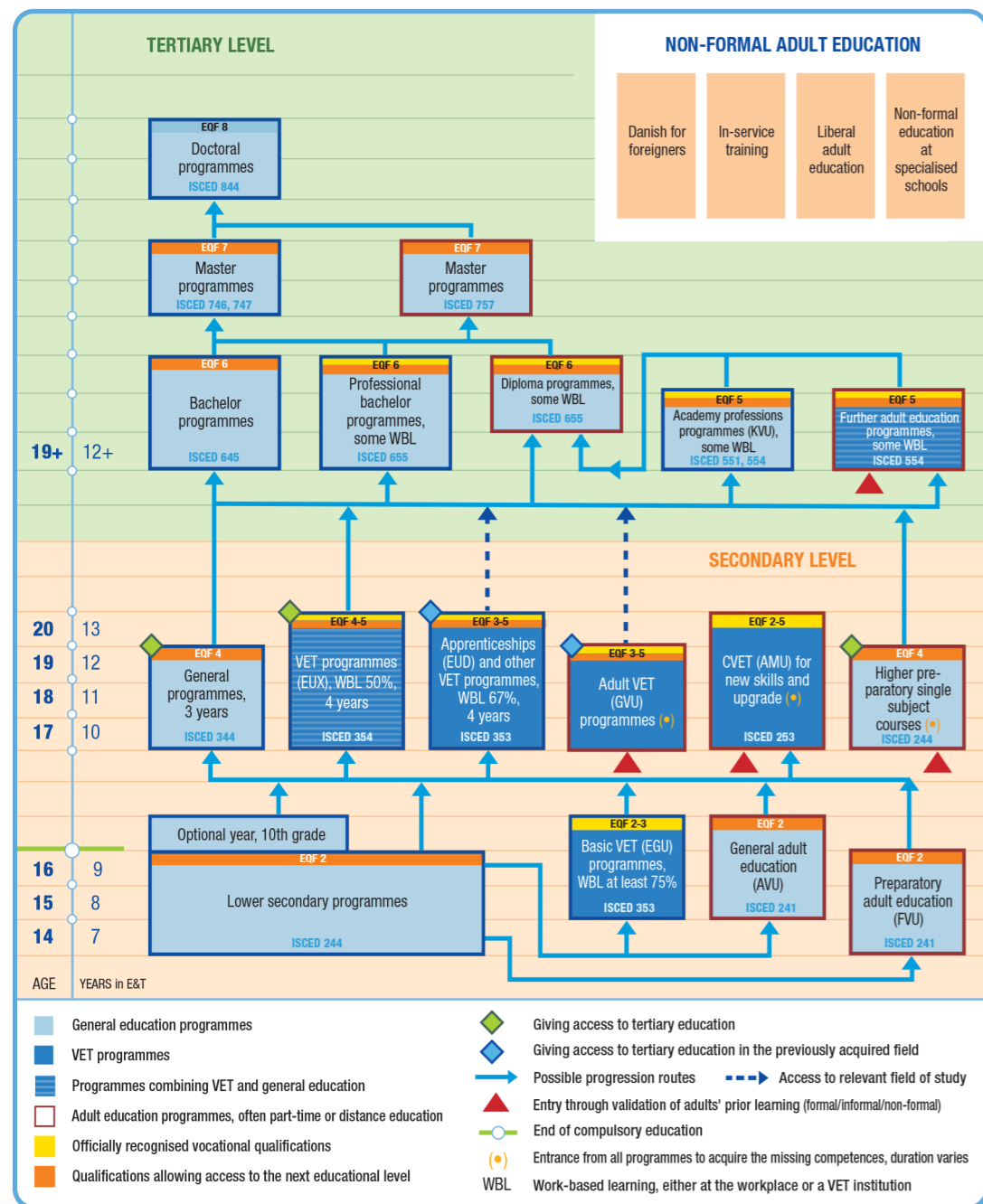
NB: ISCED-P 2011.
Source: Cedefop and ReferNet Denmark.

Spotlight on VET in Denmark
Source: http://www.cedefop.europa.eu/en/publications-and-resources/publications/4135

5.2 SYSTEMS OF HVET/PHE

5.2.1 HOW IS HVET/PHE FUNDED

Higher education in Denmark is free for students from the EU/EEA and Switzerland. The Danish HE sector receives funds from the Ministry and all institutions are primarily publically funded.

The institutions are funded through the taximeter system, which links funding directly to the number of students who pass their exams. 92% of the government support to the institutions in done through the taximeter system, based on the number of graduates. The teaching component is based on a unit-cost principle, where an amount of money is paid to the university for each student who passes an exam. Each exam is weighted in this system and the weights of all exams of a 5-year programme add up to 5.

The taximeter per exam varies between different fields of study. It composes of three components, which include:

• Costs of education and equipment
• Joint costs (e.g. administration, buildings)
• Costs for practical training (applicable only for a few subjects).

The proportion of public expenditure on educational institutions for tertiary education was 96.7 % in 2005. Public expenditure on tertiary education as percentage of GDP amounted to 2.4 % in 2005.[86]

5.2.2 HOW IS QUALITY ASSURED

• Responsible organisation: The Danish Accreditation Institution
• The Danish Act on the Accreditation Agency for Higher Education
• The Order of the Danish Ministry of Culture on accreditation
The Academy professional degrees and Professional bachelor's programmes are under the higher education legislation. Danish educational institutions enjoy a high degree of autonomy, but are required to follow national regulations in terms of teacher qualifications, degree structures and examination processes. Many institutions have also obtained international accreditation for their programmes.

Accreditation is mandatory for all institutions and a precondition for attaining public funding. The accreditation system is based on the 2013 Act[87] on the Accreditation of Institutions of Higher Education. The agency responsible for the accreditation for higher education in Denmark is the Danish Accreditation Institution.

Accreditation of higher education
The new Act on Accreditation of Institutions of Higher Education in 2013 changed the system of accreditation from programme accreditation to institution accreditation. Institutions undergo accreditation with focus on the ongoing systematic work of the educational institution to ensure and develop the quality and relevance of its study programmes. Positive accreditation entitles the institution to establish new study programmes after approved pre-qualification. The institutions can also make adjustments to existing study programmes. The educational institutions, which have not passed the accreditation must have their study programmes accredited.

The Accreditation Council is responsible of making the decisions for all higher education study programmes and institutions. The institutions also need to conduct their own additional internal quality assurance procedures, led by the deans, heads of department and study boards, also including the mandatory self-evaluation done with the participation of students.[88]

The table below shows the criteria focus for the evaluation of the new study programmes.[89]

Programme	Criteria/Focus
New study programmes for: • Professional bachelor's degree • Diploma study programmes • Vocational academy programmes	1. Relevance and demand 2. Learning outcome 3. Structure
New local provision for: • Professional bachelor's degree • Diploma study programmes • Vocational academy programmes	1. Demand and recruitercontact 2. Work experience placements 3. Structure 4. Knowledge base 5. Technical environment 6. Facilities and resources 7. Quality assurance
Existing programmes for: • Vocational academy programmes • Professional bachelor's programmes	1. Employment 2. Recruiter and graduate 3. Profession base 4. Development base in relation to profession 5. Development base in relation to research knowledge 6. Learning outcome 7. Content and structure 8. Teachers 9. Work experience placement 10. QA of work experience placement 11. Falicities and resources 12. Internationalisation 13. AQ of the internationalisation 14. Systematic and Continuous AQ 15. Completion 16. Assessment of learning outcome 17. Attainment of learning otcome

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5.2.3 ROLE OF PROFESSIONAL BODIES

At the tertiary level the social partners play an active role in defining new courses and programmes and in advising on existing programmes. The involvement of social partners and other stakeholders at the national level is reflected in the Council of Academy profession programmes and professional Bachelor's programmes, which was set up in 2008. At the institutional level the social partners may be represented in the educational advisory committees which the institutions set up within the various disciplines of their programmes. The social partners may also sit on the board of the institutions.[91]

National level
Council of Academy profession programmes and professional Bachelor's programmes

The advisory council was set up in 2008, it has up to 21 members. It meets six times a year to discuss all the related topics and advise the Minister.

Representative members appointed by:
• the Ministry of Science, Innovation and Higher Education
• employer organisations
• trade unions
• local governments
• student organisations
• University Colleges
• Academies of professional higher education

Regional/local level
The University Colleges have a board with strategic advice responsibility with 10-15 members, which include representatives of regional and local government, students and teachers, including members who have experience of University College education, insight into labour market needs or have experience in management and business.[92]

5.3 DATA ON HVET/PHE

Denmark has the highest levels of participation in adult education and continuing training within the EU regardless of educational attainment levels. In 2010, Danish participation among the population with at most ISCED 0-2 was 23.4% compared with a 3.8% EU average; at ISCED 3-4, the respective figures were 30.7% and 8.0%; and for ISCED 5-6, 41.1% and 16.7% respectively. The high participation rates reflect several conditions such as the national strategy to focus on knowledge-intensive specialist sectors and lifelong learning, a large public sector, and a tradition for strong ties between educational institutions and the social partners.[93]

[90]http://akkr.dk/wp-content/uploads/akkr/Guide-to-institutional-accreditation_final.pdf

[91]OECD Reviews of Vocational Education and Training A Skills beyond School review of Denmark 2012

[92]OECD Reviews of Vocational Education and Training A Skills beyond School review of Denmark 2012

[93]CEDEFOP: Vocational education and training in Denmark Short description

[88]http://ufm.dk/en/education-and-institutions/higher-education/accreditation-and-quality-assurance/accreditation-and-evaluation
[89]http://www.nokut.no/documents/noqa/reports/stakeholder_cooperation_within_the_nordic_agencies_for_quality_assurance_in_higher_education_similarities_differences_and_examples_of_good_practice.pdf

5.3.1 STUDENT NUMBERS ON LEVELS 5-6 EQF

In 2010, 21 100 students enrolled in KVU and 70 400 students in professional bachelor programmes. Both figures indicate significant increases on previous years. Eurostat figures show that most students enrolled in higher education at ISCED 5 in Denmark are classified within ISCED 5A (26) (84.7%), while only 12.2% are placed within ISCED 5B. Professional bachelor degrees, despite their orientation towards entry to a particular vocation, are classified at ISCED 5A. Figures are consistent with EU averages.[94]

Full time equivalent students in adult education and continuing training, 2009/2010 [95]

	FULL TIME EQUIVALENT STUDENTS
Lower and upper secondary level	36,758
- Preparatory adult education (FVU)	1,839
- General adult education (avu)	8,288
- Supplementary examination courses (GSK) (1)	1,822
- Higher preparatory single subject course (hf-enkeltfag)	10,934
- Other general	13,875
Vocational oriented level	16,433
- Adult vocational training (AMU)	16,433
Tetriary level	17,445
- Short-cycle tertiary education (4)	2,756
- Medium-cycle tertiary education	12,716
- Long-cycle tertiary education	1,973
Total (5)	70,635

Completion rates in higher education [96]

%	2006	2007	2008
Short-cycle higher education	70	71	72
Medium-cycle higher education	75	75	76
Long-cycle higher education	85	84	85

[94]CEDEFOP 2012: 35-37
[95]Education and Training in Denmark – Facts and Key Figures p.11
[96]https://estudandoeducacao.files.wordpress.com/2011/05/dinamarca.pdf

Percentage of a youth that is expected to attain at least upper secondary education and the percentage that is expected to attain a tertiary education, 2010 [97]

	2010 IN PERCENT
At least an upper secondary education	90
Tetriary level	54
- Short-cycle tertiary education (4)	5
- Medium-cycle tertiary education	24
- Long-cycle tertiary education	24

Comments: An estimation of which course of study future youth cohorts will take over the next 25 years after completing lower secondary school (form 9) in 2010, assuming that the educational behaviour of a cohort throughout the period corresponds to tje behaviour in the educational system during the year when the cohort in question completed form 9.
Source: Ministry of Children and Education

5.3.2 AGE GROUP [98]
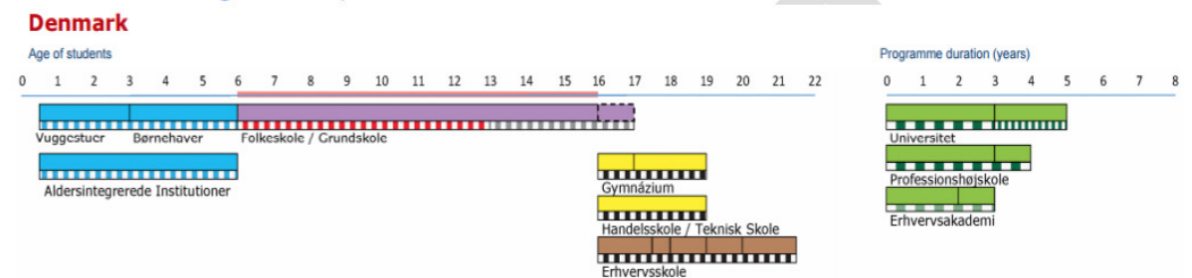
Amount of students [99]	Age	Total
Gender		
Female	-17 yrs	779
	18.19 yrs	2704
	20-24 yrs	6486
	25 + yrs	10182
Female Total		**20151**
Men	-17 yrs	1510
	18.19 yrs	5158
	20-24 yrs	7014
	25 + yrs	5706
Men Total		**19388**
Grand total		**39539**

[97]Education and Training in Denmark – Facts and Key Figures p.16
[98]The structure of the European education systems 2014/15: schematic diagrams http://eacea.ec.europa.eu/education/Eurydice/facts_and_figures_en.php
[99]http://admsys.stil.dk/EASY-A/Dokumenter/Skrivelser-fra-UVM/Statistiktt

5.3.3 PROVIDER/INSTITUTIONS

Type of institution in DK	# of institutions
Overall	
• Academies of professional higher education (offering short-cycle programmes) (Erhvervsakademier)	9
• University Colleges (offering medium-cycle programmes) (Professionshøjskoler)	7
• Universities (offering long-cycle programmes)	11
• University level institutions for educations in the arts	

Subject Categories

Academy Profession degree
• Business and Economics
• Technology,
• Information technology
• Laboratory technology
• Social sciences
• Design
• Healthcare[100]

Professional Bachelor's degree
• Healthcare
• Pedagogy
• Business and Economics
• Information technology
• Technology
• Media and communication
• Social sciences
• Design[101]

Mode of attendance

Academy profession degree
Full-time study programme equivalent to a total of 120 ECTS credits including practical placement equivalent to 15 ECTS credits.

Academy Profession degree within adult/continuing higher education
The Academy Profession degree (akademiuddannelse) within adult/continuing higher education is awarded after 2 years of part-time study (60 ECTS) at short cycle level.

Professional Bachelor's degree
The professional bachelor's degree (professionsbachelorgrad) is awarded after 3 to 4 years of full-time study (180-240 ECTS) and includes a period of work placement of at least 6 months (30 ECTS).

5.4 COLLABORATION/PARTNERSHIPS BETWEEN EMPLOYERS, STUDENTS AND PROVIDERS

In Denmark the Academies of professional higher education and University colleges are expected to highly cooperate and have mutual dialogue within the strategic triangle. The institutions also have inbuilt systems to guarantee the collaboration and partnership between the actors. They function as regional knowledge institutions in close dialogue with regional stakeholders, which can be companies or regional growth forums. The employers participate in the governance of the institutions, the curriculum development and the collaboration. In addition to the collaboration with the providers and the employers, the students are in close cooperation with the employers and involved in the institutional development and evaluation. Both the employers' and the employees' sides are very engaged in the planning, design and the steering of the system, within the Danish tradition of consensus-building.[102]

[100] http://ufm.dk/en/education-and-institutions/higher-education/business-academies-1/academy-profession-programmes

[101] http://ufm.dk/en/education-and-institutions/higher-education/university-colleges/university-college-educations

[102] OECD Reviews of Vocational Education and Training A Skills beyond School review of Denmark 2012

Best practice example on collaboration between the stakeholders

InnoEvent
InnoEvent is a platform for developing a creative, open-minded, and adaptive mind-set. The aim of the project is to give students the tools to work with other professions and industries in an innovative context. By doing so it lays the ground for founding new companies and creating new jobs, while preparing the students for the world of work. The mission of the event is to create new, innovative concepts where the newest knowledge and research comes into play, by using a triangulation where different educational backgrounds and a given industry are involved throughout the whole process. Since its inception the healthcare industry has been the main focus of InnoEvent, exemplified through the event main client Odense University Hospital. Each year the University Hospital presents a series of current real-life work case challenges or challenges they know they will be facing in the future. Throughout the process experts from each field presented give feedback to the students, and the students are given the opportunity to consult other specialist trough the network of the hospital, and by so doing, the newest knowledge and research is being implemented. In addition, both private and public companies and organisations are brought in for assessment and evaluation, which in some cases lead to further joint development and/or internships and employment.[103]

5.5 STRATEGIC TRIANGLE - FINDINGS FROM PRIMARY RESEARCH

The Strategic triangle findings chapter summarizes the main findings from the three focus group sessions with the key stakeholders of the strategic triangle – employers, providers and students. The sessions were moderated by EURASHE and were organised in March 2016 in Odense, Denmark in cooperation with Erhvervsakademiet Lillebaelt.[104]

Each stakeholder group session was held separately and findings of the first workshop were discussed in the second workshop and so on (peer-learning approach). The key themes of the workshops are outlined below and in the individual sections.

5.5.1 FOCUS GROPU - EMPLOYER

The employers were in general very satisfied with the cooperation, but there were some topics which were discussed in the focus group sessions, in which the cooperation could be further developed in the future. From the employee point of view the cooperation is the right way to get the best employees first and directly from the studies. The employers are already involved with the same students during the studies, have them as trainees and if all goes well, they will 100% hire them after graduation. This way they are already in the company when they graduate.

Communication between stakeholders and institutional follow-up
According to the employers, the institutions are initiating the cooperation and connections within the strategic triangle. It is working very well in general and the students are well involved through internships. The institutions assign a contact person for each company, who works in close cooperation with them. According to the employers the contacts are much closer now than before due to creating the cooperation, but they would still crave some clarity in the communications and more centralised efforts. Currently the HR department of the companies is in contact with the students and the institutions, according to the discussions it would be better to more centralise the contacts and cooperation on the department and/or institutional level.

Students' skills and development
The employers see that the students on EQF level 5 already have the right basic skills for the job and after three months of traineeship they're ready to work. For EQF level 6 the traineeship is longer, six months and they are very well equipped in more challenging tasks. On both levels the employers agreed that students have received the right training from the institution and are very mature. There are no problems with, for example, confidentiality (in banking) or handling more sensitive information. The employers have constantly a need for professionals from both EQF levels, but the need is for different tasks depending on the level.

[103] http://innoevent.dk/about-innoevent/

[104] https://www.eal.dk/

From the employer perspective the unemployed EQF7 graduates could also benefit from the more basic business skills taught in Academy profession degree on EQF 5 level, to make them more employable. In addition to the courses taught currently, skills such as customer relations should be taught even more and be even more in the focus.

Digital skills
The increasing need for digital skills came up in the discussions as one of the key topics. Nowadays the employers need more employees with good digital customer related skills and eSkills. This trend would most likely only increase in the future. In addition to the high need for digital skills, the social skills were also seen to be highly in demand. The employers constantly need different kind of people for different office tasks. The more extroverted are needed in the direct, small branch customer service, and the more introverted are needed in the demanding back-office tasks.

Traineeships
The traineeships are always evaluated by the employer with an evaluation form. The selection of a trainee includes an interview by the employer, which is a trial period when both the student's motivation and the employer's motivation are tested. The employers want to see and test how the student displays discipline, maturity and the company's values. During the discussions it came up that in general, all the trainees from the institutions are hired to be employees once they have done the internship. The employers constantly build a talent bank from the internships with dynamic employees who need to be able to quickly deal with changes. One of the challenges for the employees is to keep the talent pool filled for their needs, currently there are not enough students available on national level. During the internship the students get acquainted with the company and its culture. This way they get to know the company better than just by explaining. The students need to also get the experience to make sure they have chosen the right study topic for themselves. For the employer, it's important to teach them as much as possible, get experience from customer service and see how things are done in the company.

According to the employees the interns' attitude has changed for the better in the last years due to the changes in the courses and structure. If the student's attitude is not in order, they will not get hired after the internship. The employers said that the focus of the

education should also be on basic working life skills, such as punctuality, proper business/work manors/ dressing, ability to adapt to different customer types, etc.

The companies were satisfied also with the student cooperation where the students do volunteer work for the companies during and for the courses and will get an additional certificate for the work they have done. This also helps the flow into future internships with the companies they already know and are in contact with and it also helps the students in starting their own start-up businesses.

The employers said that in the future there is also a need to hire students from other backgrounds, with diverse and different skill sets for the changing tasks. These skills could mean multidisciplinary skills, on other discipline areas too, not just on the same topic the student is studying. This kind of cooperation with the businesses has already been tested by combining e.g. hospitality students with banking students. Together they work on different tasks in cooperation with the businesses to learn new multidisciplinary skills.

5.5.2 FOCUS GROUP - PROVIDER

Communication within the strategical cooperation
One of the main topics in the discussions with the HE providers was communication with the companies. They saw that the companies should participate more in telling the students what they expect. Currently the participating institutions were cooperating with 95 companies in the context of different study classes. They also saw that the companies need to participate more in the direct cooperation and on the other hand they need to be asked more simply what they would need by the institutions. Communication needs to be improved also afterwards between the institution and the companies. The companies' HR departments would better understand the hiring needs and follow-up, but the contacts the teachers deal with are not in the HR departments.

Institutional (strategy) role
In order to further the cooperation the institutions would need to better acknowledge and register their teachers' exchange periods to companies, this would be beneficial also for the numbers of participating teachers. The HE staff saw that the strategic triangle cooperation should be implemented better within the institutions in

order to see that all the study programmes are in line with the labour market demands and employer needs. In order to do this, more companies' input would be also needed to adjust the curricula. There should also be new topics introduced to the curricula, with more added focus on digital media skills and hiring new teachers to further the cooperation, etc.

The HE staff did not see the possibility of RDI cooperation with the companies promoted enough or at all within their institutions and saw that this would open up a whole new possibility to increase the cooperation. Currently there is some cooperation for RDI, but it is quite minimal and should be promoted, and it should also be a lot stronger and increased. The work on getting it in the programmes is in process in the institutions. There are ordinary projects with the cooperation companies, but there are problems in developing the cooperation for RDI with the companies. Only 14 percent of the cooperation within the strategic triangle is in contact with the research institutions.

The teachers saw that there should also be a 'project bank' with ready project ideas on future cooperation. When needed the study programmes/students can react fast to the company needs and problems, but according to the teachers this should and could be done even faster and the reaction time is still not fast enough.

In the discussions it came up that the coordination of the contacts between the companies and the institutions is not efficient enough. They saw that the best way would be to have a hired person to handle it centrally. Currently the contacts are on individual level and teachers are not willing to share them. There needs to be an institutional level decision to further the cooperation, as well as more involvement from the higher levels, which is a strategic decision. There needs to be more discussion on the cooperation, a market analysis and branding from the institutions side. The cooperation needs to be embedded in the institutional strategy more. There should also be more competence development for teachers checking teaching against real life skills.

There is a lot of interest to cooperate with the companies within the institutions, also a lot of interest to include the students in the cooperation. The institutions need to make a lot of contacts with the companies, not only be there when the institutions want to cooperate, but to be more involved with the companies and to further the cooperation in all ways.

Developing teachers' role and skills
All the teachers should participate in evaluating traineeships in order to keep up with the information. A quality and development conference should be organised for every department once a year. This is one of the goals for next year for the participating institutions.

Relevance of the study programmes
The relevance needs to be described, the institutions need to make procedures which need to be used by departments in order to develop the activities and cooperation with the companies. The study programmes should use more collected information in developing the study programmes. Also, teachers' skills in cooperation and the skills needed by the labour market could be improved. The board of the institution is advising the curriculum development with members from the employers, but it could be even more practical and included in the strategy. Also, institutions do some courses with joint days of teaching with the companies represented in the advisory board, which are also jointly evaluated (50% practical skills 50% academic skills). Most of the study programmes are working on start-up skills, this part of the studies is embedded in all programmes. Most of the student start-ups fail, but they have gained the entrepreneurship skills already. The curriculum design has to be done by checking the need for it through national survey (different needs in different parts of the country), then by doing a prequalification project based on the survey. If approved by the ministry, then design the curriculum further and apply for national accreditation.

5.5.3 FOCUS GROUP - STUDENTS

The students attending the focus group meeting came from both Academy Profession degree and Professional Bachelor's degree. The strategic cooperation discussed during the meeting was mainly similar for both programmes, but there were some minor differences in the experiences on the cooperation. Some participants of the discussion had previous studies in a university, but had changed over to PHE studies, because they saw it as a straighter way to get a job and to get practical knowledge in their field combined with the theory.
Students' skill development

One of the main points of efficient cooperation in the Danish institutions are the visits to companies and guest

lectures by the employers, which are integrally included in the studies. The Danish companies are constantly looking for qualified workers from students, who would be able to do course work for them. Students report the results of their work to the companies and get direct feedback from them for their work. This was considered to be an efficient way to cooperate.

Examples: Students did computer programming for an IT company and a developed a web shop for an energy drink. In the strategical cooperation the students gathered data and solved problems for the companies, which then also came visit the institution.

The companies organise workshops between a few weeks to months, while students attend classes simultaneously. The workshops are integrated into the different topics of the study courses. These kinds of workshops will be done more during the 3rd semester. During it all, the courses the students take will have a lot of guest lectures. During the 4th semester students do a short report, and after that a final report for three months. In addition to the companies participating in the courses, the institutions organise a career day in May, where students find employers and can network with them with the support of the institution.

Adapting/creating study programmes to meet needs
The Marketing management study programme was developed based on the need of the companies for marketing professionals. Study programme and curricula for financial management on the other hand was more developed together in cooperation with the industry representatives. The study programmes need more live problems from the companies and everything is done as group work. Studies include a lot of theory and working in groups, students do small tasks every day using real cases.

Internship cooperation
The student internships are very competitive in the area and especially for the banks. Due to the competition, the students will need previous experience in getting the internships. According to the students the differences between students are quite big, which depends quite a lot on the competencies and the activity of their respective teachers.

The most beneficial things in working in an internship for a company is, according to the students, that they see the current real working-life problems of the companies

and in addition to the future trends and get valuable work experience. The students also saw internships as possible providers of future jobs, in addition to giving the students get more knowledge. For the students it's nice to be in "the real world" and learning the practical things they should know and the practical working life skills and rules.

Mentorship
In the Academy professional degree the students get a mentor from the industry, who is a former student of the same programme in the same institution. They get to meet with them for 4-5 times and get advice on their daily work. The mentoring programme has been going on since 2007 and it involves mainly newly graduated students who work in different industries.

More efficient cooperation and networks
In the students' view the cooperation could be enhanced by listening even more to the industry and by the institutions offering an even better curriculum with more elective courses. The semester projects are done by the students with teachers networks' in the industry, this should be changed to include even more networks and contacts. In addition there could also be B2B marketing. The students saw the teachers as having have a lot of work experience in their industry, which for them was a highly motivating factor.

Development possibilities for future cooperation
In the students' view, the cooperation could be developed by creating more and more important relationships with the regional companies. Currently the cooperation relies too much on their teachers' own networks and resources. They saw also that the student cooperation should be more widely promoted towards companies. In addition, the institutions should listen more to employers' expectations and find ways to adapt to them, they should not only limit the cooperation the other way around, to what the students and institutions have to offer. The students saw that the cooperation with companies should be from the institutions' side more centralised (e.g. CRM). They mentioned that the participating institutions are currently executing a new strategy on the future cooperation and possibilities.

Student initiated cooperation
During the discussions there was also a suggestion for an alternative solution to increase the cooperation; the students should form individual groups, which would look for the cooperation companies and themselves find

ways to cooperate with them. The students saw that the companies would need for example more social media services and programmes to do graphical design. There's also a real need within the companies to learn about the social media and skills, also about communication. This is important for all branches and could be a good way to enhance the cooperation. They also mentioned that companies should also be more motivated to come to the institution to work with the students.

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CHAPTER 6

CONTEXT OF COLLABORATION IN HVET IN BASQUE

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6.1. HVET/PHE IN THE BASQUE COUNTRY

6.1.1 BACKGROUND AND POLICY CONTEXT TO HIGHER EDUCATION

VET in Spain is mainly the responsibility of education and employment authorities. The National System for Qualifications and Vocational Training forms the umbrella for VET programmes leading to formal qualifications awarded by them.
The General Vocational Training Council is the national government's advisory body on VET policy.
It comprises representatives of national and regional public authorities and social partners, such as enterprise organizations and trade unions.
Stakeholders were involved in developing occupational standards and creating a National Register which serves as a reference for education and employment authorities when designing VET qualifications and programmes to ensure they are relevant to labour market needs and demands.

VET qualifications awarded by the education authorities (VET Diplomas) certify education level and occupational skills and competences. Those awarded by the employment authorities (Professional Certificates) comprise three levels and certify the occupational skills and competences acquired.
Tertiary or higher education comprises university studies and Higher Level VET.
Since 2011, Higher Level VET Diplomas have been assigned to the first of the four levels of the Spanish Higher Education Qualification Framework (MECES)
The teachings of the Vocational Education System are sorted in Higher Level Vocational Training Titles. Recently some Specialization Courses have also been created.

These Specialization Courses aim at the expansion and development of the contents included in the titles and they allow configuring itineraries of specialization in those titles most demanded by the productive sectors.
The teachings of VET respond to a professional profile, allow improving a professional qualification or preparation for the exercise of other professions. They are structured in professional modules of varying lengths and are arranged so as to allow the reconciliation of learning for people with different social, labour or family circumstances.
Vocational Education and Training in Spain offers more than 150 training cycles in 26 professional families, with

theoretical and practical content suitable for various professional fields.

Within each professional field, in addition to basic VET cycles and Intermediate VET cycles, there exist the Higher Level Cycles, leading to the title of Senior Technician which is part of higher education.
Titles obtained on studying a training cycle are official and have the same academic and professional validity throughout the national territory, regardless of whether the studies are conducted in one region with autonomous administration or in the area under the Ministry of Education, Culture and Sport.
Recognition of certain European credit transfers and accumulation systems allows progression for Higher VET graduates and complementary studies for those form university.

There are also Higher Level VET programmes in Arts and Design and Sports (ISCED-P 354 and 554)
The Dual principle was introduced in 2012 to increase access to VET and support young people in the transition to the labour market. The Bask Autonomous Community has already put it in place in some specific occupation areas.

The current vocational training in figures
Students enrolled in VET have increased to almost 50% from 2007-2008 to 2015-2016 course, from 451.541 to 719.087 students respectively.

As for on-line vocational training, in the same period it has grown from 10.951 students to 57.931, with an academic offer of 101 titles through an e-Learning Platform

Internships are one of the strengths of the VET system (a training module at the work centres), which enables the incorporation to the training system of some aspects that could not be worked in the classroom and increases the likelihood of finding a job.

The Organic Law of Education, LOE, May 2006, was the organic law governing the state educational teachings in Spain, it has been in force since the academic year 2006/07. In November 2013, it was partially modified with the approval of the Organic Law for the Improvement of Educational Quality, LOMCE, which entered into force during the academic year 2014/2015 and is being implemented progressively. It has not reached High Level cycles yet.
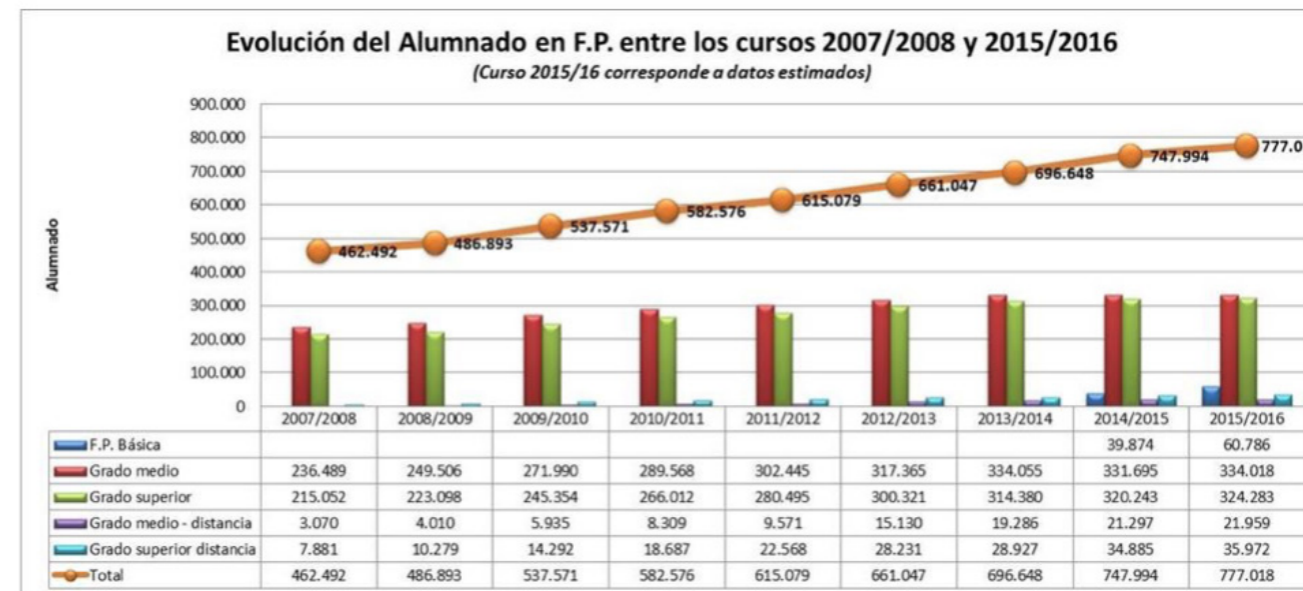

One of the objectives of the LOMCE is to revitalize the apprenticeship option. To achieve that goal, a new title of Basic Vocational Education and Training has been created. The paths from Basic VET to the Intermediate VET and from this to the Higher Level VET have been relaxed, which has induced a lot of critics from the VET sector.

The LOMCE also regulates the dual vocational training. The Spanish Dual Vocational Education System is a set of training actions and initiatives that, in collaboration with companies, aims at the professional qualification of people, harmonizing the teaching and learning between VET centres and workplaces.

What are the policy drivers?
Focusing already on the Basque Country region, the regular Basque VET Plans have been the best policy drivers in later years. Since the competencies on education were transferred from the Central Government in Madrid to the Basque Government in Vitoria-Gasteiz several VET Plans have been progressively approved. The first one was elaborated by the Directorate of VET and the following ones, included a Strategic Agenda for VET 2015, by the Deputy Regional Ministry of VET.
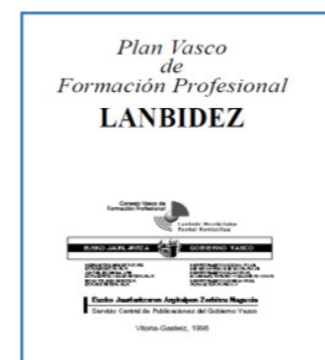
The current plan in force is the IV Basque VET Plan. There are five different areas of concern in this plan:

• The Comprehensive Vocational Education and Training
• Applied Innovation
• Active Entrepreneurship
• Internationalisation
• Vocational Education Centres
In connexion with every area, several objectives have also been set and, in order to reach these objectives, there is a selection of lines of actions on which to focus the efforts in future years. Here are the most significant ones:
• Dual, work-linked training
• New careers-guidance areas
• New learning models
• New areas of improvement
• Strategic contexts and areas of specialisation
• Projects of applied innovation
• Entrepreneurial culture
• Start-ups
• Showcasing the Basque VET system
• Flexibility, autonomy and new organization of the integrated VET centres,
• Creation of a network of specialist VET centres

Relevant brief history
It is important to remember that the modern history of the VET teachings in Spain dates back to the Organic Law on Qualifications and Vocational Training, June 2002, which established the creation of the integrated vocational training centres, and provided the basic requirements for these centres, stating that their management corresponds to the regional administrations.

This law defined the centres as VET providers offering education programmes to obtain certificates of professionalism, which constituted the vocational training offers linked to the National Catalogue of Vocational Qualifications.

Later on, in December 2005, a Royal Decree regulated the basic requirements of the Integrated VET Centres. The objective of the Integrated Centres was and still is to ensure a new integrated offer that enables for qualified performance of professions and serves as a permanent training resource for the adult population to improve their employability.
In the Basque Country, the Law on Life Long Learning,

October 2013, included the Integrated Basque VET System within its conception. The network of VET centres was singled out as one of the instruments of that system. This law described the integrated offer of vocational training, supported by the extensive network of integrated centres providing initial vocational training and employment training.

These integrated centres include, into their own training activities, the initial vocational training, the actions of insertion and reemployment of workers and the permanent training for the working population.

In addition to the training offers previously authorized, the integrated centres incorporate also the Information Services and Professional Guidance, as well as the evaluation of skills acquired through other non-formal learning and work experiences under the framework of the National System of Qualifications and Vocational Training.

In April 2014, the Decree regulating the Integrated VET Centres in the Basque Country states that the public integrated VET centres will be created, changed and extinguished by the Basque Government.

Previously, a decree of April 2013 established the organizational and functional structure of the Department of Education, Linguistics and Culture Policy, noting that it corresponds to the Regional Deputy Ministry of Vocational Education and Training to submit the proposal for the authorization of public and private VET centres.

By a Decree in June 2015, the Public Integrated VET Centres and the Network of Public Integrated VET Centres was also established.

This decree regulates the academic offer and some other matters concerning both the students and the legal situation of the personnel at the centres.

What is distinctive about HVET/PHE and the role it fulfils in your country
Regarding the current discussions about the differences between HVET and PHE in Europe: in the Basque Country there isn't any type of Professional Higher Education, and that the offer linked to Higher Vocational Qualifications is included in the HVET offer.

Status and popularity
Traditionally, vocational education and training in the Basque Country has enjoyed great popularity, particularly in the technical branches and in the most industrial towns of the region.

The reason lays on the good prospects that it offers for young people to find employment, except in times of crisis, and that it is a sector traditionally linked to the way of life and work in this northern area, with many small and medium companies and with multiple workshops of professionals labouring in the industrial sector.

With the spread of globalization and the need for the introduction of new concepts such as entrepreneurship or innovation, Higher Level Vocational Training also gained momentum to the point of becoming a strategic sector for the region's government too.

Its political relevance is shown by the fact that it is being managed by a Deputy Ministry, a range which the VET sector hasn't reached in any other regions.

• Recent changes or developments
Recently there have also been some changes and developments concerning VET in the Basque Country. For example:
• Dual Training
The Dual Training programme are offered by public and private VET centres in the Basque Country aiming at young people, over 16 and under 30, enrolled in the vocational training cycles. Its objective is to enable students learning in alternation between a VET centre and a company.

The dual vocational training system is developed through the collaboration of the VET centres and the companies, with the possibility for companies to offer VET facilities, spaces or experts to the VET centres, in order to provide, full or part time, some vocational or training modules.
In the VET centre the training activity will be taught by faculty from the specialties or qualifications set out in the regulations.
The work done by students in the company must be closely related to the professional profile of the training cycle and with the specializations scheduled previously, so that in addition to obtaining productive result, these achievements in the company enable learning and, ultimately, the acquisition of skills inherent in the title,

the ones of the specialization itself and some others of personal and social character.

Students participating in a system based on the Contract for Training and Learning Program will be wholly or partly exonerated of the Training at the Workplace Module (FCT). For the full exemption, the duration of the contract must be at least one year.
* Professional specialization programmes
The departments of education at the autonomous communities may establish specialized professional programmes aimed at improving the employability and competitiveness of companies.

These programmes are offered primarily in the context of the dual training scheme for people who follow a vocational training course, as complementary training to the required for the corresponding title. In this case, the dual vocational training programme should be longer than two years and, in the Basque Country, it needs to be authorized by the Deputy Ministry of Vocational Training.

In the Basque Country, the specializations programmes which are currently offered are:
• Integrated operation and maintenance of electrical power distribution installations.
• Integrated life cycle management platform for a product in design and manufacturing processes.
• Design and production of forging processes.
• Advanced high-speed and high performance machining of special materials.
• Management of production means in highly automated industry.
• Operations with drones for land, building and infrastructure surveys.
* Design and manufacture of dies for obtaining sheet metal parts.
• Draft Law on VET in the Basque Country
This new law aims to lead a strategic transformation of the Vocational Education and Training System in the Basque Country. A transformation that will require a solid, extensive and rigorous regulatory framework, enabling it to advance towards complex objectives by means of which to adapt the Basque VET system to the new needs of the companies and the labour market.
The project establishes a new model of VET in the Basque Country, a combined framework of integrated concepts like Training, Applied Innovation and Active Entrepreneurship.

6.1.2 QUALIFICATIONS COMPRISING HVET

As mentioned previously, in Spain there exists a National Vocational Qualifications Catalogue which is comprised by 26 different professional families and applies to the VET centres in the Basque Country too. The teachings of the Higher VET system are arranged in:

• The Higher Level Training Cycles
• Professional Specialization Programmes
A training cycle is a formal training programme completed with theoretical and practical knowledge related to a specific professional area, and designed to develop skills in this precise area. There are around 170 different training cycles classified in three levels (Basic, Middle, Higher). On passing a Higher Level Cycle, students obtain a title: Senior Technician.

A Higher Level Training Cycle lasts 2000 hours and the duration is divided into two academic years. Between 400 and 600 of those hours are invested in doing the compulsory internships.

6.1.3 PROVIDERS OF HVET

The integrated VET centres are the academic institutions providing HVET in the Basque Country region, they can public, private or semi-private centres.

Public integrated VET centres are academic institutions which are operated by the Basque Government. They may depend on:

• The Department of Education.
• The Department of Employment and Social Policy.

These centres will be assigned to a public integrated VET centre under the Department of Education, in regard to the teachings of initial vocational training.

Other departments or public bodies linked or dependent on the administration of the Basque Country. These centres will be assigned to a public integrated VET centre under the Department of Education, in regard to the teachings of initial vocational training.
Private integrated VET centres are those whose holder is a natural or legal person in private. These centres will be assigned to a public integrated VET centre under the Department of Education, in regard to the teachings of

initial vocational training.

For the purposes of the prevision of VET, the private integrated VET centres will be considered as private when their IVET teachings are held with public funds and covered by the regime of concerts.

The integrated VET centres include in their training activities characteristic of the initial vocational training, actions of integration and reintegration of working people and lifelong learning aimed at the employed working population that addresses the demands of the productive tissue and are duly authorized by the corresponding department or agency.

Under the Department of Education there are 4 Integrated VET centres in Araba province, 10 in Gipuzkoa and 11 in Bizkaia.

These integrated public VET centres are associated in a net called IKASLAN Euskadi. Their links can be found in one of the following links:

• http://www.ikaslangipuzkoa.eus
• http://www.ikaslanbizkaia.eus
• http://ikaslanaraba.eus

The private and semi-private VET centres (private centres with agreements with the Basque Government) have also their own associations: AICE-IZEA and HETEL

• http://www.hetel.org
• http://www.aice-izea.com

6.1.4 COUNTRY PROFILE - CEDEFOP DIAGRAM. SPOTLIGHT ON VET SPAIN

The VET system in Spain is illustrated in this diagram by the CEDEFOP:
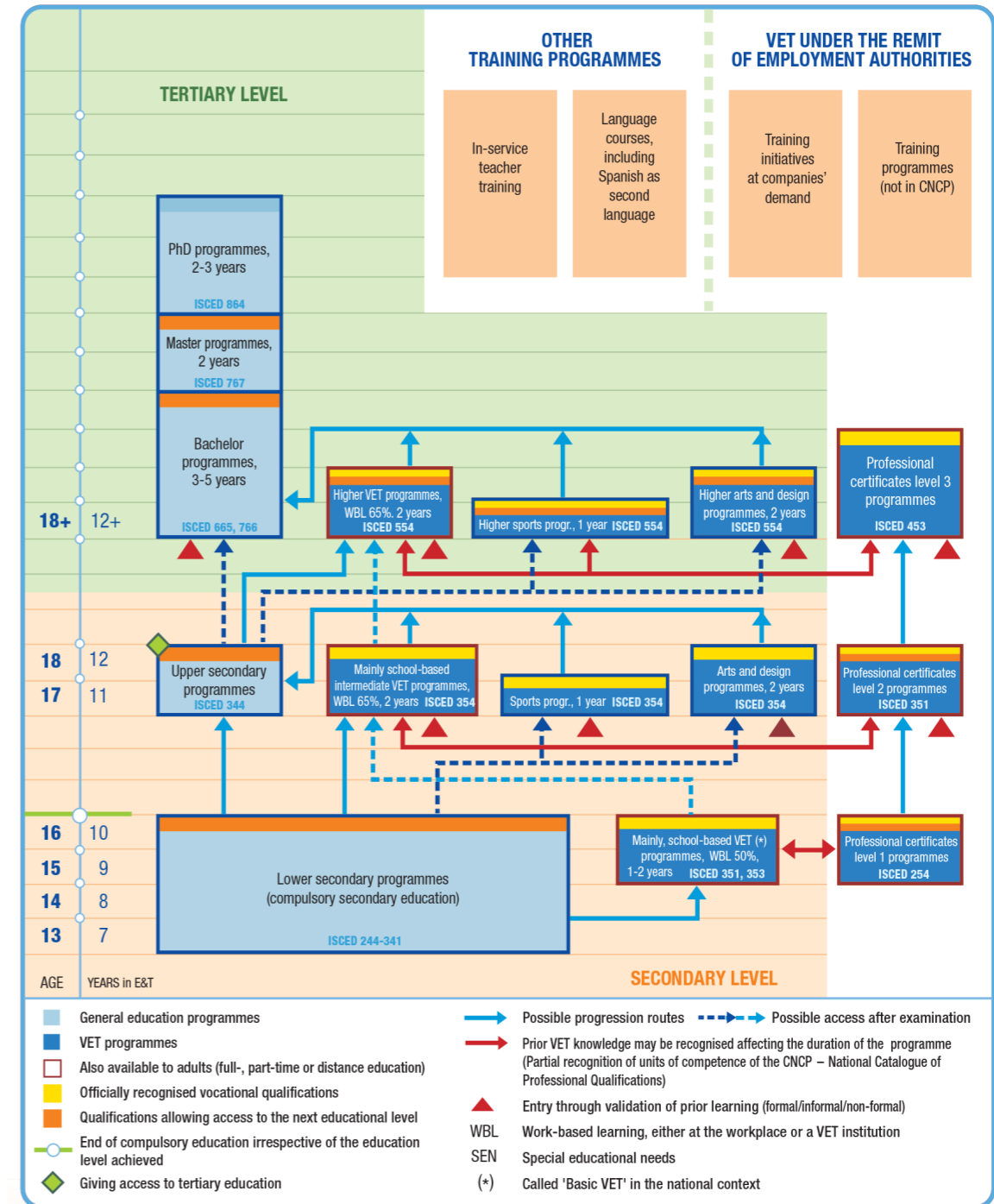
NB: ISCED-P 2011. EQF levels have not yet been defined.
Source: Cedefop and ReferNet Spain.

Spotlight on VET in Spain
Source: http://www.cedefop.europa.eu/en/publications-and-resources/publications/4135

The diagram, from 2013/4, still reflects the current situation of the VET system in Spain. Regarding the Basque Country region, two new official decrees have been published since then.
* DECREE 14/2016, 2nd February, about the general organization of the Vocational Education and Training System.
* DECREE 46/2016, 15th March, to create supplementary courses for obtaining a third year of new titles linked to previous ones.
So far, focusing on Higher VET, seven supplementary courses have already been approved. Therefore this new offer should also be taken into consideration.
It may also be of interest to have a look at the diagram published in the Eurydice Report 2015/2016.
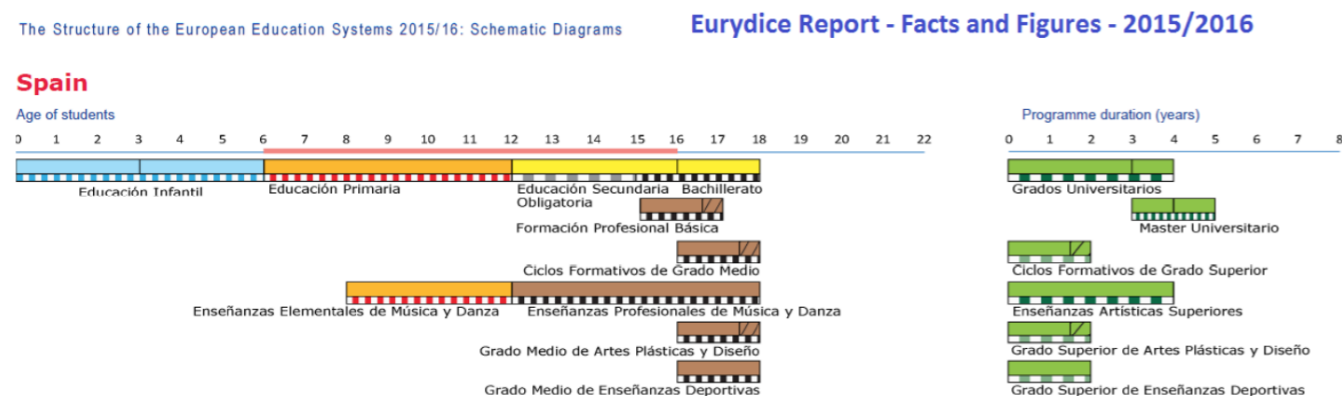
6.2 CEDEOP DIAGRAM

6.2.1 HOW IS HVET/PHE FUNDED

Regarding the funding scheme, in the use of its competence, it is up to the Government of the Basque Country to establish the structure, organization and guidelines of the vocational education and training system.

• Public centres dependant of the Basque Government: They are financed by the public administration.
• Semi-Private centres: The 80% of the budget comes from the public administration (Private centres that offer lessons declared free by law, and meet schooling needs)
• Private centres: They have access to their private funding.

Other funding sources are:
• Training courses for workers and unemployed people
• Courses on demand
• The different types of projects in which they are involved (European Projects, Technicians for Chile programme, etc.)
• Recently, the Innovation Services to companies (TKgune)

To finance the offer referred to in the common programming model, the relevant departments in education and employment take into account the rules governing the training activities which have been considered in such programming.

The Integrated VET centres may receive allowances and other subsidies, including those from the framework of educational concerts, in order to finance the training activities and services they provide.

The centres which develop actions sustained with public funds are subject to the obligations arising from the provisions governing the budget and subsidies from the public administration.

In the case of actions co-financed by the European Social Fund, the centres have to apply the Community rules governing the control of state aids, as well as others on advertising.

It is up to the education authorities to provide the resources to adequately serve these students to the VET centres. The criteria for determining the provisions are the same for public and semi-private centres. (LOE)

6.2.2 HOW IS QUALITY ASSURED

Regarding quality assurance in VET, several mentions were gathered from different regulations and documents at national and regional level:

• **Law on Sustainable Economy, 2011**
The Government, in collaboration with the Autonomous Communities, will establish a network of quality assurance. This network will coordinate the established actions and measures of planning, development and evaluation to improve the VET system.
The effort of the centres for improving quality levels as a contribution to excellence in the field of VET will be encouraged.

Educational and labour administrations will promote collaboration with companies of different productive sectors to promote innovation, transfer of knowledge and expertise in vocational training.

Educational and labour administrations will enhance the innovative initiative in educational, technological and orientation and professional integration by developing research initiatives, development and innovation aspects.

• **Law on Lifelong Learning, 2013**
Quality is a basic principle of all the plans and programmes of lifelong learning, and will aim to improve learning outcomes, effectiveness and efficiency of services and satisfaction of stakeholders.
The Basque Government will promote the culture of quality in the Basque lifelong learning system through processes of internal and external evaluation, through processes for improving results and performance, and through participation in the state and European network on the framework of quality assurance.
Basque VET and LLL councils will establish, for their respective areas, quality assurance frameworks and will assess their compliance.

• **Decree regulating Vocational Integrated Training Centres in the Basque Country, 2015**
Regarding quality assurance, some clauses of the decree fix the requirements that must be met to be an integrated VET centre:
  - To have a quality management system or acquire the commitment to implement it within one year. The system must ensure that the objectives are achieved and the purposes and functions set out in the Decree are met.

The Regional Deputy Ministry of Vocational Training identifies quality to excellence and continuous improvement of the services offered to citizens and of the processes and systems of management and governance. The commitment to quality and continuous improvement affects all people, in all actions they perform. To achieve this, it provides the means and training to all staff to work effectively within the quality management system.

• **Quality Objectives**
The quality objectives for the Vet and LLL System are all objectives identified in the processes related to the service requirements and the challenges set out in the map of processes.

• **Inspectorate of Education**
It is up to the public administration to carry out the high inspection of the educational system, in order to ensure compliance with the competences allocated in education and the fulfilment of the Spanish constitutional principles, rules and other basic standards.
The educational inspection is being exercised by the education authorities through public officials at the Body of Educational Inspectors.
The Inspectors of education use their Annual Plans as a way to articulate their performances at educational centres. They also manage the internal organization of the service that enables such interventions.
The activities of the Educational Inspection are grouped into four areas:
• The Evaluation
• Regulatory Control
• The Advice, Guidance and Information
• The Collaboration
More information on the Educational Inspection:
http://www.hezkuntza.ejgv.euskadi.eus/r43-inspcont/es/contenidos/informacion/comunicaciones_centros/es_inspec/formacion_profesional.html

• **Award, accreditation and level of the diploma**
The body awarding the diploma on behalf of the King of Spain is the Spanish Ministry of Education or the different Autonomous Communities according to their areas of competence. The title has academic and professional validity throughout Spain.

The official duration of the training leading to a diploma goes up to 2000 hours.

Level of the diploma (national or international)
• National level: Non-University Higher Education
• International level:
- Level 5 of the International Standard Classification of Education (ISCED Level 5).
- Level 5 of the European Qualifications Framework (EQF Level 5).

Entry requirements: Holding the Certificate in Post-Compulsory Secondary Education (Bachillerato) or holding the corresponding access test.

Access to next level of education: This diploma provides access to university studies.

Legal basis: Basic regulation according to which the diploma is established:

1. Minimum teaching requirements established by the State: Royal Decree 1581/2011, of 4 November, according to which the diploma of Higher Technician in Industrial Automation and Robotics and its corresponding minimum teaching requirements are established.

6.2.3 ROLE OF PROFESSIONAL BODIES

There are several bodies and departments whose role in the VET system we can describe as follows:
• VET bodies in the Basque Country:
In addition to the Basque Vocational Education and Training Council, there are three organisations directly answerable to the Deputy Regional Ministry for Vocational Education and Training:

• The EEI-IVAC – Basque Institute of Knowledge in VET,
• The Basque Agency for Evaluating Vocational Training Skills and Quality and
• Tknika, the Centre for Research and Applied Innovation in VET.

Lessons learned plus the new objectives derived from the strategies set out in the IV Basque Plan make it advisable to transform these three organizations so that they can consolidate the results that have been achieved and ensure that progress is made in other fields, all together with taking on board new responsibilities, new aims and open organisational systems that allow new challenges to be taken on board ahead of time,

with flexibility and effectiveness and via permanent innovation and the path to excellence.

• The Governmental Departments
The Departments with competences in education and employment, in collaboration with the most representative employers and labour organizations, schedule the integrated vocational training offer in order to respond to skill needs of different groups and optimize resources available.
This programming is informed by the Basque Vocational Education and Training Council and is assessed annually.

• The Social Council
The Social Council is the body of participation of society in the public and semi-private integrated VET centres.
• The principal, who will chair the Council, a member representing the department responsible for education, and another one on behalf of the department responsible for employment.
• Four representatives of the educational community: two people chosen by teachers, one elected by the staff of administration and services and another one by students.
• Four representatives of the social agents: two business organizations and two trade union organizations having the status of most representatives in the Basque Country.
• As Secretary of the centre will act as Secretary of the Council, with voice but no vote.
* In the case of semi-private integrated VET centres, the Social Council will be constituted as described in the previous paragraph, except the persons referred to in paragraph a), being replaced by four representatives or the head of the centre, one of them being the director, who will chair the Council.

Participation of the social partners: The educational and labour administrations in each region will promote the participation of all stakeholders in order to adapt the supply of vocational training to the needs of society and the economy in the corresponding territory.
Participation in the Basque Vocational Training Council
• Five representatives of the Basque Business Confederation
• Five representatives of Trade Unions

6.3 DATA ON HVET

6.3.1 STUDENT NUMBERS ON EQF LEVEL 5

During the 2015-2016 academic year, the total number of students enrolled in the Higher Degree Cycles (EQF Level 5) reached 20,164, of which 12.76 were male and 7,898 female. The number of males is higher and concentrated in the industrial cycles, differing from females who concentrate more on the cycles related to services.

Of the 20,164 registered students, 11,592 were in the public centres under the Department of Education of the Basque Government and 9,022 were registered in private semi-private centres (centres with agreements with the Basque Government)

Eustat - Students registered in Vocational Training in the Basque Country by level and professional family, considering historical territories and sex.

Basque Country - Academic year 2015 -2016

Level	Total	Men	Woman
Higher VET (Level 5)	20.614	12.716	7.898

Students registered in Vocational Training in the Basque Country by ownership and level.

Basque Country - Academic year 2015 -2016

Level	All	Public	Private
Higher VET (Level 5)	20.614	11.592	9.022

Age group. Are these pursued mainly by younger or more mature students?
• The 18 - 21 age group is the predominant group in EQF Level 5

6.3.2 QUALIFICATION TYPES

• The Professional Training covers more than 140 degrees of notable success in the labour market. The titles are classified or grouped into 26 "Branches" or "Families"
• Each professional family implies a technological-economic framework that is shared by the cycles belonging to it.
• Within each of the 26 Professional Families, there are Training Cycles of Intermediate and Higher Level that respectively grant the titles of Technician and Senior Technician.

Los Títulos de Formación Profesional se organizan en 26 familias

				Instalación y Mantenimiento	Seguridad y Medio Ambiente *
Actividades Físicas y Deportivas	Artes y Artesanía *	Energía y Agua *	Imagen y Sonido	Madera, Mueble y Corcho	Servicios Socioculturales y a la Comunidad
Administración y Gestión	Comercio y Marketing	Fabricación Mecánica	Industrias Alimentarias	Marítimo-Pesquera	Transporte y Mantenimiento de Vehículos
Agraria	Edificación y Obra Civil	Hostelería y Turismo	Industrias Extractivas *	Química	Textil, Confección y Piel
Artes Gráficas	Electricidad y Electrónica	Imagen Personal	Informática y Comunicaciones	Sanidad	Vidrio y Cerámica

(*) Nuevas Familias Profesionales

• A summary document prepared by EEI-IVAC is available. It summarizes the characteristics of the LOE training cycles that make up each professional family:
http://www.hezkuntza.ejgv.euskadi.eus/contenidos/informacion/formac_profesional/es_1959/adjuntos/ciclos_LOE.pdf

6.3.3 PROVIDERS/INSTITUTIONS

The Integrated VET centres can be public, private or semi-private as was said previously.
• The public integrated VET centres are those whose holder is the Administration of the Basque Country.
• The semi-private integrated VET centres are private centres with special agreements with the Basque Government.
• The private integrated VET centres are those whose holder is a natural or legal person privately. These integrated centres include in their own training activities, the teaching activities of the initial vocational training, actions of insertion and re-employment of workers and of permanent training activities for the working population.

In addition to the training offers, the integrated centres incorporate Information Services and Professional Guidance, as well as, where appropriate, assessment of skills acquired through other non-formal learning and work experience under the Framework of the National System Qualifications and Vocational Education and Training.

• Number and type of institutions:
• Centres offering Vocational Training in the Basque Country: 118
• Public Centres offering VET in the Basque Country: 64
• Private Centres offering VET in the Basque Country: 54

Among the 64 Public Centres offering VET,, only 25 of them are Integrated Centres.

• Student numbers studying in these institutions:

Eustat – VET centres and levels provided in the Basque Country, considering historic territories and ownership

Basque Country - Academic year 2013 -2014

Level	All	Public	Private
Higher VET (Level 5)	118	64	54

VET Cycles offered in the Basque Country – CAPV
• VET full-time offer in Public Centres
  - Academic offer considering places and centres
  - VET Cycles provided and classified in vocational families
• VET part-time offer
  - Modules offer in Public centres
  - Modules offer in private centres
• On-line VET offer
  - Academic offer at the on line Institute
• Preparatory course for the exam to Access to Cycles
  - Academic offer at public centres
  - Academic offer at centres for Adults
  - Academic offer at semi-private centres

6.3.4 MODE OF ATTENDANCE

There are up to 5 different types of attendance to VET courses: The Full Time offer, the Part Time offer, the on-line offer, the Dual VET system and the Free Tests. These are the difference among them:

• **Full-Time VET offer**
VET centres have a full-time offer of the training cycles, Intermediate and Higher Levels, which have been previously authorized, mainly aimed at students from the Secondary Education and Baccalaureate.

Full-time offer means a complete offer that includes all modules that are part of the cycles and that are provided in regular attendance regime in the morning, the afternoon or both and at night time.
• **Part-time VET offer:** (BOPV 27-12-2002)
The Partial Offer brings the possibility to enrol in different modules independently, unlike the ordinary registration which implies to enrol in all the modules that make up the course.
Class attendance is mandatory, but the time devoted to it is smaller and allows enjoying other activities. Tuition is usually done coinciding with the start of the academic year.

It is aimed at people over 18 and meet access requirements - a training cycle of Intermediate or Higher Level - or who have passed the corresponding Access Examination to the Intermediate or Higher training cycles – as the module or modules you want to study belong to an Intermediate Level Training cycle or Higher Level.

Passing the professional module or modules will bring you an academic certificate
and a partial cumulative accreditation of the skills acquired.

VET on-line offer in the Basque Country
(BOPV 9-11-2010)
• Design in Mechanical Manufacturing
• Management of networks of computer systems
• Childhood education
• Production programming in Mechanical Manufacturing

Created in May 2011, the on-line VET Institute, hereinafter ULHI, is included in a set of initiatives that the Regional Deputy Ministry of Vocational Training sets out to develop a highly qualified society that guarantees the current and future competitiveness of Basque society. To that end, ULHI offers a flexible and modular training, allowing different learning pathways to those people who, by their work or personal situation, have no access to regular vocational training offer.

This type of blended or mixed learning is characterized by combining, when the competences of the title require it, distance training with face to face sessions.
Registration and evaluation of the on-line offer has its own regulations in the order which regulates this type of education.

Dual VET System

Dual training programmes in alternation are based on the type of contract for training and learning.

In general, the projects include a first course of the training programme at the training centre and a second training course in alternation between the centre and the company.

Evolution in the participation of students: the Dual VET System in the Basque Country

Dual VET Distribution	PUBLIC CENTRES		SEMI-PRIVATE CENTRES		TOTAL		
	Nº CENTRES	Nº STUDENTS	Nº CENTRES	Nº STUDENTS	Nº CENTRES	Nº STUDENTS	Nº COMPANIES
2012 -2013 ACADEMIC YEAR	11	79	16	45	28	124	95
2013 -2014 ACADEMIC YEAR	18	119	26	119	44	238	176
2014 -2015 ACADEMIC YEAR	30	215	28	187	58	402	311
2015 -2016 ACADEMIC YEAR	35	347	36	412	71	759	475
2016 -2017 ACADEMIC YEAR	44	591	41	692	85	1283	790

Source: Deputy Ministry of VET, Department of Education. Basque Government

Free Tests to obtain Vocational Qualifications

The general organization of vocational training establishes means of access to vocational training qualifications throughout life and, among them, the test conditions (commonly referred to as "free") which allow people obtaining two titles: Technician and Senior Technician

The free tests for obtaining these titles are held in public centres dependant of the Department of Education, in those cycles that are authorized and have students enrolled in ordinary regime in the 1st and 2nd courses.

6.3.5 COLLABORATIONS/PARTNERSHIPS BETWEEN EMPLOYERS, STUDENTS AND PROVIDERS

The commitment to strengthen the relations of collaboration among VET centres, students and companies, in the case of integrated centres, is included in the official Decree, published in 2014, which regulates their functions. Specifically, there is an article in the Decree that encourages VET centres to develop links with companies in different areas:

• Teacher training.
• Students' internships and professional practices at companies or centres.
• Dual Training projects for students.
• Professional Guidance and Counselling.
• Applied Innovation and participation of professionals from the productive system in the teaching-learning process.
• And, finally, to collaborate in the detection of the needs for qualification and in the development of workers' lifelong learning process.

In turn, among the participating bodies on the management of the integrated VET centres, this same decree establishes a new body, the Social Council, which according to one of the article, is the organ for the participation of society in the management of the integrated VET centres. The Social Council is made up of 12 members. Among them, there are four representatives of the social agents: two from the companies and two from the trade unions in the Basque Country. One of the functions of this Social Council is to encourage the collaboration with companies, institutions and entities to facilitate the development of the Strategic Project.

Furthermore, the IV Basque Plan comes through with the concept of Applied Innovation as the strategic area where the support to innovation in the SMEs is the key objective. It points at several work lines: Strategic environments and specialization areas, emerging sectors and projects of applied innovation.

What do Internships mean?

Training at the Workplaces (FCT) is a compulsory professional module which is offered in all VET programmes: Basic, Intermediate or Higher level.

It is a phase of practical training in a company that occurs at the workplace and as a general rule, should be done in a real business environment, once all the professional modules of the training cycle have been passed.

The Training at the Workplaces module has nor a labour character nor a fellow relationship. Students in internships remain being enrolled in regulated education.

• 2014 – 2015 Final Qualification Statistics regarding Higher Level cycles in the Basque Country:
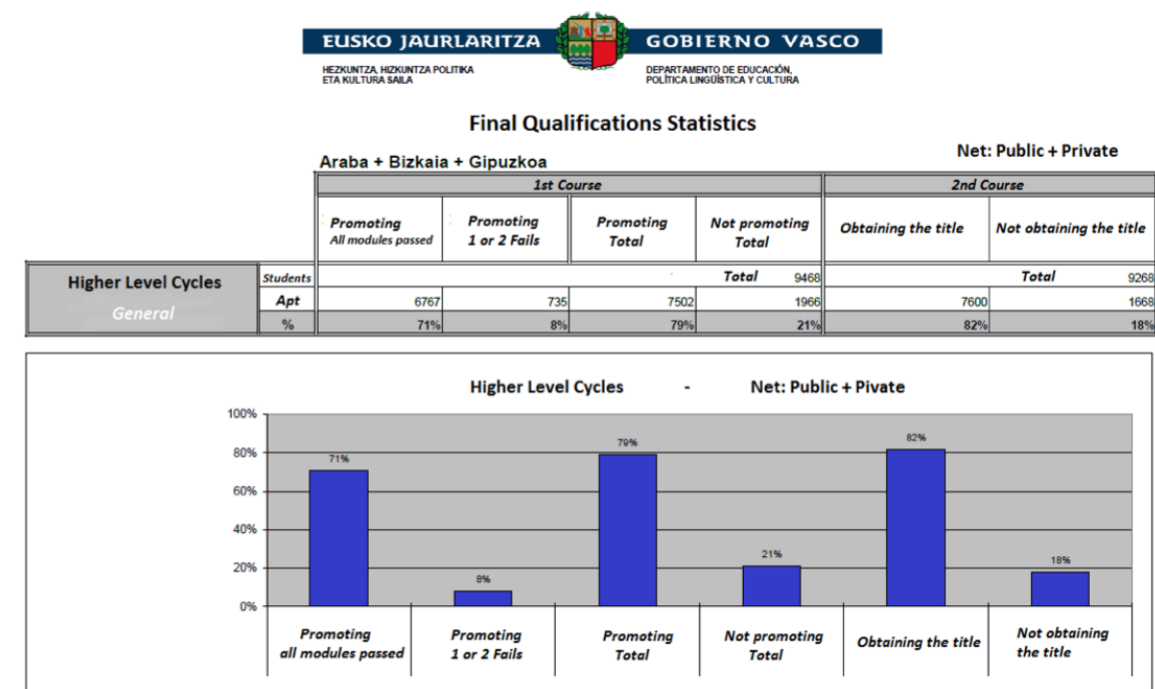
6.4 STRATEGIC TRIANGLE - FINDINGS FROM PRIMARY RESEARCH

This section presents the findings from four national workshops conducted with key partners of the Strategic Triangle- employers, VET providers and students. Key themes from the discussions and the questionnaires are outlined below.

The national workshops with partners of the Strategic Triangle in the Basque Country were held during the period February-May.

Questionnaires were passed to the workshop attendants. These questionnaires included the most important issues of the relationship: objectives, needs, barriers, proposals and good practices. Summarized here are most of the ideas and suggestions heard at the workshops or collected on the questionnaires.

6.4.1 FOCUS GROUP - EMPLOYER

Regarding the workshop with companies, two workshops were organised: a first one with 3 project managers at Lehiberri, a centre for innovation and competitiveness in Tolosaldea region, very much focused on the relationship with the world of work, and a second workshop with 5 young entrepreneurs with companies created by them recently.

Collaboration of employers with HE providers in the design, development and delivery
Employers should collaborate because through collaboration the transference of knowledge improves greatly. The needs and requirements of the companies will be better known, students will have the opportunity to know the labour market and its processes which, probably, will help them to be better qualified.

Barriers in collaborating with HE providers
Time and rigidity of the education system are recognised as important barriers for collaboration. On the other side, for some students VET centres not being yet a valid reference for companies is another big barrier. From the lack of relationship emerges the fact that many employers don't really know the existing possibilities for collaboration. The lack of skills detected in students coming from the Higher Level Cycles is shown as a reason for the promotion of the specialization programmes.

Current collaboration with providers
Most employers collaborate mainly with VET providers geographically close to their own companies. Sometimes they also collaborate with Universities, clusters or other type of institutions like Tknika.

Forms of engagement with the providers
The internships and the module of practices at the workplace are probably the most extended forms of engagement between employers and VET providers in the Basque Country. Acting as monitors in the work-based learning initiatives at some VET centres is another way of collaboration. Collaboration on training activities and in the development of different types of projects appears to be a promising way of relationship among them: Design and development of new products, to produce games pieces on wood, and so on.

Barriers for collaboration
A relationship should be established considering the long term. It should also be flexible and strategic for the VET centre regardless of the changes among the faculty. That is a topic to discuss between companies and VET centres.

Role of providers
Teachers need to be updated and practice technological awareness and be in touch with companies working in the areas of their professional concern. Apart from visiting companies, they could also organise talks and invite both companies and students.

Key factors for success in collaboration
A mutual understanding along the years is a key factor: Companies should be aware of educational reality around them and VET centres should know how to manage tasks when dealing with companies so as to have a quicker response and appear closer to them.

Role of students in the partnerships
Evidencing their knowledge and soft competences, their commitment and interest should be the concern of VET students. Some kind of students and alumni association could be active and supporting this relationship.

Role of employers in the partnerships
The role of employer is to develop a fluid communication and display a strong commitment with VET centres and students. For that, they should strongly believe in this relation with VET providers. Their participation should start with the design and finish with the delivery of the titles.

6.4.2 FOCUS GROUP - STUDENT

Two workshops were conducted with students. The first one was held in a VET centre called Usurbil LHII, in Gipuzkoa, with a group of 7 students registered in a cycle on Efficient Energy (European Level 5) and the second took place in a Zubiri LHII, a VET centre in San Sebastian, where 9 students of a cycle on Administration and Finance attended the workshop, being two teachers of this group present as well.

Collaboration of employers in the design, development and delivery
Collaboration between employers and VET centres would mean more motivation for students, closer links between VET cycles and the labour market and more updated skills. In that way, the needs of enterprises would be better addressed and the adaptation of students to the world of work would improve as well. Collaboration should be focused especially on some specific modules and specialties and not on the basic ones.

VET centres should keep on modifying the curriculum according to the market changes and, at the same time, employer should take part in the design of the curriculum because doing so, employment and productivity would improve.
It is true that companies should be empowered but to certain extent because, on one hand, the transfer of knowledge would be more efficient but, on the other hand, VET centres have some other aims and commitments with society.

Barriers for the collaboration of employer with providers
Companies take advantage of the Practices at the Workplace module but when they finish the practices, companies do not sign up the students. Moreover, companies assume no risks and do not invest in training. There is a lack of awareness in the companies. Some time they also have difficulties to offer themselves for the practices of students. It may be true that there is a lack of money, but as employees will increasingly need better training, they should be made aware of it and engage in education. Up to now, companies do not seem to be aware of the benefits yet. They prefer to sign up older worker because they do not know the knowledge and skills that VET students have acquired at the VET centres. Some companies even prefer to take people from university or to train new workers internally.

To prepare the lessons at the pace required by the technological change is very difficult, expensive and slow. In that sense, curricula do not meet the needs of businesses, the rhythm of education is not compatible with the business' needs. Coordinators are needed to improve the relation between centres and companies.

Potential solutions
VET providers should know the needs and expectations of their collaborators and get involved in projects with a varied type of companies.
Offering Vocational Guidance to students and getting the employer to have a better understanding of the VET system would enhance the relationship, so that, at the companies, the awareness of the quality of VET students' competences improves.

Role of providers in the partnerships
Adaptation of students to the world of work should also be considered, maybe with some more hours of work at different companies, or with a more fluid and closer relation between students and companies and a broader monitoring of their practices.
VET centres should also provide a more flexible offer (for those who are already working, for instance) and more scholarships for internships abroad.
Another relevant fact is that teachers should show more commitment with innovation and be ready to renew the curricula when needed.

Role of students in the partnerships
The students' task is to be well trained and prepared for work, to prove their skills to employers, and for that, they have to try harder than they do. Aside from that, a change in their attitudes is also needed: they should show commitment, good behaviour, initiative and readiness.

Students could also enhance the situation by assessing the business practices that they do, and contributing with interesting suggestions.
Role of employers in the partnership
Employers should show more commitment, and support towards VET centres and be closer to students. That support could be oral and financial. Having students in practices and singing up new workers from the VET centres. Visiting the VET centres to talk to students and teachers and guiding about the employment or the evolution of the world of work. And of course, offering decent salaries to workers.

6.4.3 FOCUS GROUP - PROVIDER

In this case, the workshop with the training providers consisted of a meeting with 13 VET teachers with vast experience on managing vocational training centres and on the delivery of VET programmes at European level 5. There already exists a long tradition of collaboration with the company in the region and that, to improve them, more stable frameworks would be needed, establishing long-term cooperation policies and a beneficial relationship for both institutions: a win-win relation.

Collaboration of providers with employers in the design, development and delivery
VET centres should anticipate future needs and meet the expectations and needs of companies. Companies must be the reference. The already-established partnerships and collaborations help to create a climate of trust conducive for both VET centres and companies. Expensive equipment at VET centres depreciates better by making it available to the companies: Offering training and technical services.

VET centres should understand the profile of workers needed, including technical skills and attitudes.
It is necessary to improve the employability of students and create positive dynamics of innovation for people, businesses and society.

To know and work at the VET centres with company parameters, regarding the organization and operation. Some other facts need to be considered: Collaboration with academic authorities in the design, having updated teachers on the payroll, which requires on-going recycling initiatives, research projects involving teachers and workers, and so on.

Barriers in the collaboration with employers
There is a great lack of knowledge regarding the equipment and skill level that exists at VET centres. The market changes very quickly and companies respond to the day to day needs, they have trouble at focusing on the future and outlining the skills they are going to need. The economic situation of companies and their small size is an added obstacle in the Basque Country.

Changes in the curriculum are slower and are out of phase with respect to the requirements of companies.

Companies have a different rhythm. The bureaucracy in public education is also a barrier.

Moreover, VET providers are not considered as a reference or as advisors and providers of technical services. Unfulfilled expectations increase frustration in companies, so quality services must be provided to them. The effort and the proactive approach should be constant at the VET centres. The collaboration in training or in services increases confidence and helps to overcome barriers. Collaboration should not be an option but a must for VET centres.

Current collaboration with employers
It is interesting to cooperate with as many companies as possible. Collaboration is mainly focused on SMEs given the industrial tissue of the Basque Country, though the training plan has been elaborated for some large companies too. But large companies have more hierarchies and it is more difficult to reach them. All companies should have some VET centres to collaborate with and, on the contrary, all projects at the VET centres must have, at least, a company involved.

Forms of engagement with the employers
Space is established for sharing facilities and reviewing the curriculum, and on offering specialized, continuous and on-demand training. New products and processes are developed, and collaboration is used to update teachers' skills and the capacities of the centre.

Barriers and role of employers
A way to overcome the barriers could appear if solid frameworks for collaboration are created and these relationships are reinforced. For instance, having people as a reference at the VET centres and at the companies (to know to whom one can call)

On the company's side: providing real learning contexts and allocating time for some people to devote to these partnerships, or involving in training, to the point of taking part in the training process, as in the dual training.

The VET centre: They should make an effort to adapt themselves to the characteristics of the company.

Collaboration should be defined as an obligation, not as an option. There should be a manager in charge of the relationship with companies in each didactic

department of the centre, and also a tutor and a monitor of practices for each group, both at the VET centres and at the companies.

There should be nodes of common interest among companies, centres, and institutions by specialties. As, for instance, the Business Forums they have done in Bergara.

Key factors for success in the partnership with employers
Mutual understanding is the key factor for good partnerships with companies, and that is a long-term relationship based on proximity and trust, based also on the qualitative services provided and on the previous relationship on CVET, internships and dual training. In the relationship there are tangible benefits for all. It is a win-win relation.

It seems that versatility is the key aspect. Needs for technical training must be met, as well as to work collaboratively on innovative projects in various fields: training, management, technology (TKgune).
The Job Bank for students is also an incentive to maintain the relationship with companies.

Role of students in the partnerships
Upon entering the company, students become the link with the VET centres. They can act as prescribers of the centres and feed them back with their experiences.
It should be possible for VET students to participate in real projects with the involvement of the companies, allow them to participate in the design of academic offer and also provide them a qualitative Career Guidance Service. On the other hand, they should create and strengthen partnerships alumni.

6.5 REFERENCES

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DECREE 46/2016, 15th March. Additional courses to obtain a third year of new titles linked to previous ones are created: https://www.euskadi.eus/y22-bopv/es/bopv2/datos/2016/04/1601360a.pdf
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