

# **Qualifications, learning outcomes and competencies: a review of European divergences in vocational education and training (VET)**

**A review of the literature by Michaela Brockmann  
(Draft working paper)**

## **Introduction**

Pressures for convergence of VET systems in Europe have been widely commented upon in the literature (Ertl, 2002; Münk, 2003). Factors frequently cited include socio-economic changes and global economic pressures which are said to have triggered broadly similar responses across the major European countries (Boreham, 2002). Others point to the many initiatives at EU level. Ertl, for example, argues that within the EU, educational policy has always been an important tool for achieving the stated economic aims, notably free movement of goods, services and capital (2002). Recent policy developments, notably the Lisbon European Council in 2000, initiated specific measures in education and training to ensure the EU's competitiveness in the global economy. Vocational education and training has been regarded as an integral part in achieving this goal. In 2002, the Copenhagen Declaration on enhanced European co-operation in VET laid down plans for building a true European labour market through trans-national recognition of vocational qualifications and improving national VET systems (Coles and Oates, 2004). This process culminated in the development of a European Qualifications Framework (EQF) (European Commission, 2006), intended to serve as a mechanism enabling comparability between national qualification systems and thus enhancing transferability and mobility of labour.

While this process follows previous attempts at creating equivalence frameworks (Cedefop, 2006; Coles, 2006), it crucially builds on an approach based on outputs or learning outcomes of qualifications rather than inputs, as the only way of ensuring that the framework can be operationalised (Coles and Oates, 2004; Winterton et al., 2005). This approach arguably is closest to the English NQF and has been criticised sharply as it would risk fragmenting European VET systems that are based on holistic notions of occupations and qualifications (Rauner and Grollmann, 2006). However, others have pointed out that stakeholders across Europe welcomed the EQF as it stimulated the debate in their own countries and advanced moves towards developing learning outcomes, seen by many as a vital means for improving comparability and transferability at national level (Bjørnavold and Coles, 2006; Hanf, 2006). The EQF was developed by the European Commission on the basis of expert groups from all EU countries. The Framework grades qualifications according to eight reference levels and across three dimensions which describe learning outcomes: knowledge, skills and competencies (Winterton et al., 2005).

In the light of these developments, this paper will explore the VET systems of four European countries (Germany, France, the Netherlands, and England) and examine in detail the debates and policy responses in each country. It will be argued that it is of crucial importance to take into account the social construction and historical embeddedness of concepts if the European Qualification Framework is to succeed.

In the section that follows, we will explore the meanings of some of the key terms on which the EQF is based. We will start with a broad analysis of national VET systems, the meaning of vocational qualifications in the different national contexts, and their significance in the labour market. Particular attention will be paid to the role of general education within VET systems. Within this analysis, we will then explore some of the key elements that underpin and define such qualifications, such as the role of knowledge and the scope of activities, or skills, seen as the indicators of learning outcomes in the EQF. Crucially, the analysis will draw out important differences in the meaning of ‘learning outcomes’ and will further our understanding as to the different rationales behind national moves towards developing an outcomes-based approach, with qualitatively different outcomes for the work and labour processes. Our analysis will demonstrate that because of the particular intrinsic and context-bound meanings of terms in each country, we need to develop trans-national categories to serve as common comparators of qualifications.

Against this background, a second section will look at another key term in the EQF: that of competence. We will describe some of the converging socio-economic pressures faced by all countries within the EU that have led to quite similar responses, and, notably, to the use of very similar language. The paper will argue that, while using a common language of competencies, work-based learning etc, the terms refer to quite distinct national traditions of VET and divisions of labour which need to be understood for any framework to be applied.

### **Vocational qualifications – what are they made of? What do they mean?**

The different VET systems can be classified according to varying dimensions. However, any typology risks being simplistic and unhelpful. Looking at the institutional structure of education systems in Europe, Müller and Wolbers (2003) distinguish between occupation-oriented systems (e.g. Germany, Austria, and the Netherlands) and those which are focused on general, school-based education (e.g. the UK and France). They argue that, rather than converging, with the post-war expansion of education, countries have tended to build on their traditional institutional structures, and differences between them have become more marked. Our analysis will show that such a classification hides important differences and obscures distinct traditions in each country.

Perhaps a typology more useful for the present discussion is the one developed by Rauner based on different qualifications strategies (2006). He distinguishes between VET systems which focus on education of the person for an occupation (*‘Berufliche Bildung’*) on the one hand, and those which are aimed at employability of individuals, on the other. In the first type, VET is integrated into a comprehensive school system and is designed to achieve ability to act competently within an occupational field. Qualifications are obtained through the successful completion of courses developed through negotiation with the social partners, integrating theoretical knowledge and workplace learning. In the second model, a ‘market of qualifications’ enables individuals to enhance their employability through certification of sets of competencies acquired either through work experience or courses in a modularised system. The nature and type of skills is determined both by the market mechanism and the decisions taken by individuals in order to enhance their careers or income.

Clearly, the countries Rauner has in mind in relation to the first type are those with a so-called dual system of VET (Germany, Switzerland, Austria and Denmark), while he allocates the UK and US to the second type.

For the present discussion it might be useful to place the two models on two ends of a continuum from qualification to certification, i.e. from a system based on (tightly regulated) inputs to one based on outcomes. The conceptual analysis suggests that we can place England firmly on the side of ‘employability’, while Germany sits fairly staunchly on the opposite end of ‘vocational education’, with France and the Netherlands somewhere in-between. The two latter countries have traditionally subscribed to a broader notion of occupation in VET, and have recently opened up their systems by partly breaking the link between training and qualifications, thus moving closer towards the employability model. In these countries, part-modularisation and the introduction of accreditation of prior experiential learning (APEL) enhance individual opportunities for acquiring the skills suited in a changing labour market, enabling lifelong careers. A debate to that effect is currently underway in Germany and moves in this direction have been rather more cautious. Overall, it can be said that the VET systems in Germany, France and the Netherlands are moving towards putting greater emphasis on employability, with occupations becoming less, rather than more delineated and less, rather than more, specialised, in line with requirements of the knowledge economy, but also, and importantly, with a central focus on occupational mobility of the individual. Our analysis will demonstrate that the opposite has been the case in England, where there has been a trend towards a narrowing down of skills. Here, a strongly demand-led system ensures the production of narrow sets of skills suited to a low-skilled labour market. This raises the question whether the notion of employability in England works to the detriment of individuals by trapping them in the low-skill sectors of the economy.

As will be shown, the VET systems of France, the Netherlands, and Germany, despite moves towards employability, have retained some of their defining principles, such as holistic education and lifelong personal development. They all have traditionally integrated vocational education into a comprehensive education system, regulated by the social partners. Crucially in these countries, VET incorporates a substantial element of general education based on the notion of citizenship. In Germany and the Netherlands, this builds upon Humboldt’s notion of *Allgemeine Menschenbildung*. An educational reformer in 18<sup>th</sup> century Germany, Wilhelm von Humboldt advocated an education system that would ensure the full participation of citizens in society through the provision of general education (Benner, 2003). Central to his idea was the notion of ‘learning to learn’: through the development of key faculties individuals are enabled to acquire knowledge throughout life (ibid.: 180). Vocational education in France similarly has had a strong focus on citizenship (Méhaut, 2006). This contrasts sharply with the VET system in England which has been criticised for neglecting general education (Green, 1998).

In addition, VET in our three continental countries includes a substantial element of theoretical knowledge. Clearly, there are important differences between them in terms of the balance between classroom and workplace learning. Only in Germany do we find a dual system which relies on the integration of theoretical knowledge with significant workplace experience. There have, however, been developments in both the Netherlands and France – and for that matter, Germany – aimed at making VET

more practice-oriented. This contrasts with the English model which in recent years has moved towards a narrowing of 'skills' dispensing with knowledge deemed unnecessary. As will become clear in this paper, the extent of underpinning knowledge and the way in which VET builds upon the integration of different types of knowledge, both theoretical and practical, marks a major distinction between the continental countries, on the one hand, and England, on the other. Next we will briefly discuss the concepts of skills and knowledge.

The fact that it is difficult in the English language to differentiate types of knowing may reflect the suspicion with which abstract underpinning knowledge in VET has been treated in this country (Clarke and Winch, 2006). Both German and French distinguish 'knowing that' or theoretical knowledge (*Wissen, savoir*) from 'knowing how' or practical knowledge or know-how (*Können, savoir faire*). In addition, these languages further distinguish between *systematic* propositional knowledge (*Wissen, savoir*) and *non-systematic* propositional knowledge (*Kenntnisse, connaissances*) (ibid.). Also, while in Germany, France and the Netherlands, VET involves different types of knowledge (task-specific, occupational and industrial) to underpin practice in a relatively broad occupational field, VET in England is aimed at acquiring (ever narrowly defined) task-specific skills with no or little underpinning knowledge. Importantly, while skills in, for example, Germany (*Fertigkeiten*) are integral elements of a holistic notion of *Beruf*, in England they are bundles of specific skills defined as learning outcomes of fragmented qualifications. The EQF appears to have adopted the Anglo-Saxon terms of knowledge, skills and competence without due consideration of the meanings in the different national contexts.

Theorists such as Ryle (1949) and Oakeshott (1962) in their writings epitomise the Anglo-Saxon notion of skill as practice and the minimal role of theoretical knowledge. For Oakeshott, the technical knowledge underpinning every practical activity is understood as a rigid set of rules which is applied in an unreflective way. Practical knowledge, on the other hand, refers to a person's ability to act within a social environment. Ryle goes one step further by completely disconnecting theoretical knowledge, what he refers to as 'knowing what', from practice ('knowing how'). He maintains that, while practice may initially be based on knowledge or rules, these are soon no longer reflected upon, but become second nature. He goes on to say that it is possible to learn an activity without ever learning the rules at all, and that more often than not *how* is learnt by practice, unaided by theory (Ryle, 1949: 41). According to him, somebody is 'skilful', if he or she applies certain criteria in the conduct of the performance itself. As we will see in the next section, the notion that skills can be measured in terms of the practical performance of a task is at the heart of the NVQ system in England.

Processes of learning that rely primarily on tacit knowledge have been dominant within the Anglo-Saxon world. Lave and Wenger's (1991) study of African tailors learning their trade within a community of practice has been an influential work, and describes how apprentices are developing from newcomers to experts through a process of imitation and socialisation. Some commentators have suggested that even this acquisition of minimal underpinning knowledge is being eroded in England in favour of the competence-based approach (Green, 1998). At the same time, these models have become very influential in the continental VET systems as they have become more practice-oriented and put greater emphasis on situated learning.

However, it is precisely the interaction between theoretical knowledge and experiential learning that distinguishes their VET systems from that in England. In their discussion on learning models, Clarke and Winch (2004) suggest that in England VET relies largely on inductive learning, whereby people are expected to generalise from their experience, given the minimal theoretical knowledge input. In Germany, France and the Netherlands the learning process is deductive, as people draw on the body of taught theoretical knowledge to inform their practical work. At the same time, however, as they reflect on their experience they expand their body of knowledge, following an inductive model.

This section will explore the different educational traditions, the balance of school-based and work-based VET, and the relationship between academic and vocational education. We will examine important differences in the use of the notion of 'qualification', particularly in relation to the nature of VET (the role of general education, the types of knowledge and know-how it encompasses), the scope of activities it refers to, and the social standing and wider significance in society. The analysis will provide a deeper insight into the particular meanings of and rationales for moves towards learning outcomes and employability, notions that assume a very different resonance in the national contexts.

### Germany

The German education system incorporates a strong and long-established vocational route through a system of apprenticeships commonly referred to as the dual system. It provides a popular alternative to academic education, and while it has been declining, over 50% of any school leaving cohort still choose an apprenticeship (ref?).

The term '*Qualifikation*' is closely bound up with the notion of '*Beruf*', literally meaning vocation. The notion of *Beruf* is deeply embedded in German society (Greinert, 2007). It emerged from the craft-based system and the particular privileges given to the craft chambers at the end of the 19<sup>th</sup> century, and the particular role afforded to education in marshalling the working classes to the cause of the bourgeois nation-state. Following the school reformer Kerschensteiner, with the introduction of vocational schools (which soon became compulsory) the state at the time sought to co-opt the working classes into the bourgeois nation-state (and away from the threat of socialism), by way of socialisation, or 'education through the vocation' (Deissinger and Hellwig, 2006). This provided the foundations for the dual system: a largely work-based training, underpinned by theoretical knowledge as well as general education, both important elements of a *Beruf*. The result of this was that German society provided a distinct educational and occupational route for the lower classes (as an alternative to the academic route) and produced a strong intermediate workforce with its own distinct identity and social recognition (d'Iribarne and d'Iribarne, 1999; Deissinger and Hellwig, 2006).

Some commentators argue that there has traditionally been a distinction in terms of educational purpose between the two tracks – vocational education and what Kerschensteiner referred to as *Tugenden* (virtues) for the lower classes, and Humboldtsche *Bildung* for the bourgeoisie (Greinert, 2007). A closer examination of Kerschensteiner's writings strongly suggests that he saw *Bildung* as an integral part of vocational education (1968). Today it is clear that initial VET firmly embraces the notion of *Allgemeine Menschenbildung* in its teaching remit (Rauner, 2006).

Qualifying in one of the 350 recognised occupations (*Ausbildungsberufe*) traditionally meant entering a life-long career in a particular occupation, linked to a certain social status and recognition in society. The strong link between a qualification, training, and a particular occupation is the result of careful negotiation between the social partners, which includes the training content as well as the scope of activities of a given occupation. This means that the scope of an occupation and its associated training programme are recognised and adhered to by all partners involved (Deissinger, 1997). The qualification gained at the end of the training programme, lasting between 2 to 4 years, thus serves as a guarantee of what is referred to as occupational capability (*berufliche Handlungsfähigkeit*), i.e. the ability of the holder of the qualification to act competently within the scope of the occupational field.

The system has been increasingly criticised in recent years for being too inflexible and thus unable to adapt to socio-economic change (Büchtermann and Vogler-Ludwig, 1997; Ertl and Sloane, 2004; European Commission, 2005; Deissinger and Hellwig, 2006). Many point to the growing reluctance of employers to take on trainees. It is argued that accelerating technological innovation raises doubts about the suitability of a *Beruf* with its high degree of specialisation during initial VET, requiring greater emphasis on lifelong learning instead (Büchtermann and Vogler-Ludwig, 1997; Deissinger and Hellwig, 2006). Many commentators favour the introduction of a modular system which would however retain the holistic principle of a *Beruf*. Ertl's models of differentiation and expansion, in particular, would allow for the certification of individual modules, while a qualification would still be subject to the completion of a *defined set* of modules (2002). This would provide flexible routes to qualifications and enable individuals to switch between courses, continue training at different stages in their lives, as well as choose additional optional modules. This latter route has already been integrated into the new ICT courses in order to allow for specialised training relevant to a particular employer or sector (Steedman et al., 2006).

Modularisation requires the formulation of learning outcomes of VET courses. The debate about learning outcomes in Germany has been underway for some time, as different stakeholders have been advocating the enhanced comparability and permeability between different types of qualifications (particularly between VET and HE), nationally, but also cross-nationally with a view to labour migration (Hanf, 2006). Crucially, the introduction of learning outcomes and / or modularisation would leave the basic structures of the German dual system in place, e.g. the holistic principle and the link between learning processes and qualifications (Hanf, 2006). Accreditation of informal learning, however, remains very controversial.

### France

Many writers comment on the traditional divide in France between academic and vocational education (d'Iribarne and d'Iribarne, 1999; Méhaut, 2006; Géhin, 2007). The supremacy of abstract and theoretical knowledge over other forms of knowledge can be traced back to the notion of nobility in the Ancien Regime which was adapted by post-revolutionary France where it was associated with reason and knowledge (d'Iribarne and d'Iribarne, 1999). The valuing of abstract, theoretical knowledge above all else implies a hierarchy of knowledge which links with a hierarchical social structure. Thus, somebody's educational level determines his or her position in

society and job status (D'Iribarne and d'Iribarne, 1999). In contrast to Germany, there has been no tradition of a large intermediate knowledge base. This has been reflected in the work organisation, which has been strongly hierarchical, based on a division between academically trained engineers and shopfloor operatives (ibid.).

While, as in Germany, a qualification marks the successful completion of a training programme, it is not associated with a distinct occupation or job, but rather denotes a broad occupational field (Möbus, 2000). The title of a qualification commonly refers to the title of diploma, which in turn signifies a particular level of education (ibid.). This may be indicative of the dominance of an academic system which is designed to encourage students to stay in education for as long as possible. Interestingly, this has led to a diversification of vocational qualifications from the late 1960s and the introduction of the vocational baccalaureate in 1985. Indeed, the increase in levels of education over the past 15 years has been largely due to the growing number of students in vocational tracks (vocational lycée or the technical path of the general lycée). However, despite formal equality, the tensions between vocational and academic qualifications have been widely commented upon (d'Iribarne and d'Iribarne, 1999; Müller and Wolbers, 2003; Méhaut, 2006, 2007). A vocational qualification is of limited value for progression within higher education, and is associated with 'negative selection' within the academic system (Géhin, 2007).

Thus, in French VET, the preference for school-based education and the neglect of the work-based route can be explained in terms of the dominance of the academic model, but also, similarly to the Netherlands, the discreditation of the apprenticeship system after the French Revolution (Troger, 2004). Increasingly, however, as the lack of practice knowledge is being criticised by employers as inadequate, particularly with the changing organisation of work towards a knowledge-based economy, there has been a broadening of VET from the 1970s and 80s to include apprenticeships and work placements (Géhin, 2007). Nevertheless, the vast majority of vocational qualifications are obtained at college (Troger, 2004). Courses have traditionally included a high theoretical content (King, 2000). As in Germany and the Netherlands, all forms of education, including VET, have traditionally been directed at the whole person: as human beings, citizens, and producers (Méhaut, 2006). Thus, there is a strong element of general education. Rather than preparing students for a particular occupation, the aim is to prepare them for life and to ensure vertical and horizontal mobility (Méhaut, 2006).

In the past, restricted opportunities in continuing and adult education have reinforced the dominance of the academic model and its ensuing social inequality. However, developments over the past few years may have served to widen access to qualifications and to strengthen individual employability, centred on individual career-building. Qualifications available outside the formal education system, such as the CQP (Certificat de Qualification Professionnelle), promoted by employers and unions since the mid-1980s, are becoming an alternative to the diploma (Méhaut, 2006). In addition, recent reforms of continuing education take account of socio-economic change by granting an individual right to training enabling individualised career development in a changing labour market (Méhaut, 2007). The move towards certification of competencies and the recognition of learning in the workplace through accreditation of prior learning (VAE) is of particular significance in a country traditionally prioritising classroom-based learning (Méhaut, 2007; Pouget and

Osborne, 2004). As we will see in the next section, the particular notion of competence in the French context is holistic. Arguably therefore, initiatives on the part of employers and unions that take account of the changing organisation of work and the requirement for lifelong learning have led to a democratisation of education and training in France.

### The Netherlands

As a strongly school-based system, there are many similarities with France in the development of the Dutch VET system. As in France, VET in the Netherlands is embedded in the national education system and has traditionally followed a strongly school-based route. And again, perhaps not surprisingly under the influence of Enlightenment values, this appears to be the outcome of the decline of the apprenticeship system after the abolition of the guilds in the 18<sup>th</sup> century, as well as a strong emphasis on inclusive civic education that took its place (Westerhuis, 2007; Reinisch and Frommberger, 2004). Vocational schools were founded in response to skill shortages in the 19<sup>th</sup> and 20<sup>th</sup> centuries but remained outside government control until the 1960s.

During the post-war period, VET was recognised by the government as an important instrument for reconstruction and was subsequently absorbed into a comprehensive school system (Westerhuis, 2007). The general character of education and its dual aim of preparing students for society as well as for the labour market was extended to VET. This embraces Humboldt's idea of *Allgemeine Menschenbildung*, although, as in Germany, the vocational and academic pathways have been highly selective, and permeability between VET and higher education has been restricted. As in France, the high content of general education and theoretical knowledge was agreed by the social partners on the basis that a broad knowledge base would facilitate vertical and horizontal occupational mobility as well as economic growth. Employers supported the general character of VET, valuing more abstract abilities, such as independent and reflective thinking (Westerhuis, 2007).

Since the early 1990s, there has been an increasing emphasis on work-based learning, in response to criticism that schools insufficiently prepared students for the workplace. The 1996 Education Act broadened VET to include a system of company traineeships (which also have a school-based element), and stipulated that school-based provision must include a substantial practical element (Heidemann et al, 2000).

The 1996 Act was significant also because it marked the shift towards a modularised, outcomes-based qualifications system, which was strongly demand-led (Westerhuis, 2006; Weigel and Mulder, 2006). However, the framework resulted in an array of narrow qualifications being drawn up by different economic sectors, reminiscent of the English NVQ system. This development was not seen as conducive to the knowledge economy, and the system was revised once more. Based on the concept of core competencies, the new qualifications structure, which is currently being introduced, is once again built upon a broad conception of qualification, which ostensibly focuses on the lifelong career perspective of students rather than on short-term needs of the economy. The number of qualifications will be substantially reduced, from over 600 to about 300 (ReferNet, 2005). Modularisation is close to Ertl's 'differentiation' model described earlier and allows for certification of individual modules while a holistic notion of qualification is retained (Westerhuis,

2006). The flexible qualification structure is thus designed to enable lifelong learning. It also provides for APEL, which, however, so far appears not to have been supported by industry.

### England

Not unlike the situation in France, there has traditionally been a divide between general, academic and vocational, practical education in England, with little value attached to the latter. The vocational route has been weak and associated with academic failure while general education towards university entry qualification has been upheld as the 'gold standard' (Hayward et al., 2006; cif Pring, 2007). VET within schools has been described as 'weakly vocational', and successive government reforms in the past, aimed at improving low participation rates in post-16 education, have sought to enhance parity of esteem with academic qualifications by increasing general content and reducing the practical element of courses (Hayward et al., 2006). Outside the school system, there have been a range of more 'strongly vocational' courses located in Further Education colleges (ibid.). These lead to recognised qualifications following standardised curricula, integrating both theoretical and practical knowledge. However, lacking a well-developed workplace element, they have been criticised for being little practice-oriented and for not producing the skills needed by employers (Winch and Hyland, 2007).

Recent educational reforms, notably the introduction of (vocational) Specialised Diplomas in secondary school education, are again aimed at 'engaging the disaffected' and at raising skill levels (Hayward et al., 2006). However, it is argued that in the context of a largely unreformed academic route, any vocational option will always be associated with the less academically able. In addition, there has been confusion over the value of the new Diplomas, which appear to involve only a minimal practice element.

Over the past 20 years, there has been decisive shift from a broader, more holistic notion of vocational education towards a narrow focus on employer-led skills. A host of initiatives have sought to address a perceived skills gap in the UK and the low skill levels compared with major Western competitors. The measures have involved a shift from supply-led to demand-led VET and have focused on enhancing the employability of individuals on the basis of employers' skills needs. The most crucial development here, embracing an outcome- rather than input- based approach, was the introduction of the National Vocational Qualification (NVQ) system in the mid-1980s (King, 2000; Green, 1998). It is a system based on competencies, which breaks the link between training and qualifications, and individuals are awarded on the basis of their performance of certain skills in the workplace. A holistic notion of occupation has been substituted for one that posits the accumulation of a range of NVQs, each constituting different sets of skills classified at different levels in a hierarchy of qualifications. According to Ertl's typology, this system most closely resembles the fragmentation concept (2002).

Thus, this development has involved a shift from the notion of 'qualification' as in Rauner's vocational education model towards the certification and accumulation of skills more akin to the (employer-centred) 'employability' model. The notion of 'skills' epitomises the Anglo-Saxon approach. Whereas in Germany, the closest

equivalent to skills are *Fertigkeiten* - which are an integral part of a broad occupational field, importantly underpinned by theoretical knowledge - skills in the English context, are, typically, very narrow, task-specific, with little underpinning knowledge (Clarke and Winch, 2006). Clarke traces the notion back to the old craft-based system of apprenticeship, where an apprentice would be expected to learn certain task-specific skills (usually of a physical nature), on the job, with one particular employer, and with little theoretical underpinning (1999). Thus, the concept of skill is conceived as an individual attribute, i.e., the mastery of a narrow range of tasks (Clarke and Winch, 2004, 2006). The production of low skills by the NVQ system seems to suit certain sectors of the economy (Winch and Hyland, 2007), which operate on the basis of a highly fragmented division of labour. This system echoes the writings of the economist Adam Smith, who held that workers acquire dexterity and become more efficient by carrying out the same routine tasks over and over again (1976).

Similarly, apprenticeships are no longer based on a regulated training programme but have been integrated with the NVQ system. Thus, they are oriented towards acquiring a narrow range of skills as required by the employer, and typically no longer constitute an initiation into a community of practice of a particular trade involving a broader skills base and minimal underpinning knowledge (Green, 1998; Clarke and Winch, 2004). Apprenticeships in England have always played a minor role (Winch and Hyland, 2007). Completion rates are very low (around 50%), and, in a voluntarist system, employers have not shown much interest in taking on apprentices. In an attempt to engage employers, the government has introduced skills academies (European Commission, 2005). However, first indications are that, being project-based, strongly demand-led and short-termist, 'training' will once again involve a functional imparting of narrow skills, clearly serving the interests of employers rather than those of employees.

Also, unlike VET in France, the Netherlands, and Germany, there has not been a strong notion of citizenship, and many commentators note what they regard as a neglect of general education in the outcomes-based VET system (Hayward et al., 2005; Green, 1998; King, 2000). In an attempt to address a concern about lack of functional skills, the government introduced 'key skills' as essential components of NVQs, consisting of communication, numeracy, and information technology (Hayward et al., 2006). The idea that 'general education is only necessary in as much as it 'underpins' competent performance in expected work tasks and can therefore be reduced to core skills' (Jessup cited in Green, 1998: 28) is at the heart of a functionalist, employer-led VET system. Green has criticised key skills as an 'ineffective surrogate' for general education, culture, and active citizenship (1998: 23).

The NVQ system was designed to improve access to qualifications, however, VET in England now functions to produce highly fragmented skills sets that tend to trap individuals in low-skill sectors of the economy. This seems to be borne out by the National Qualifications Framework, which integrates vocational and academic qualifications, based on learning outcomes. While the framework establishes formal equivalence between NVQs and academic qualifications, this seems highly questionable, given the low theoretical content of the former, particularly at the lower levels. Even more in doubt is the supposed permeability between different levels, as

the low requirements inhibit progression between different level NVQs, and from vocational to academic routes (Clarke and Winch, 2006).

This discussion has shown that in the context of VET in France, Germany and the Netherlands, with their holistic concepts of education, a high content of theoretical knowledge and general education, the notion of employability has very different connotations compared to England. It also strongly suggests that in these countries, 'learning outcomes' have rather different meanings and serve different purposes. As part of a comprehensive VET system, they are negotiated by a variety of stakeholders, including the state, employers, unions, and teaching institutions, thus representing the interests of all these bodies. Learning processes are formulated as outcomes in order to enhance comparability of qualifications and thus the occupational mobility and employability of individuals. In England, by contrast, it seems that it is learning outcomes that are defined according to employers' skills needs, and with no union involvement, and that then serve to structure VET provision in order to achieve those outcomes. This will become clearer in the next section, where we will explore shifts towards a competence-based approach in each of the countries.

### **The knowledge society: Competence and Competencies - But are we talking about the same things?**

While the turn to outcomes-oriented or competency-based approaches in VET appears to be partly a result of EU policies (in particular the development of the EQF), in the literature it is frequently linked to changes in the organisation of work and the demand for new skills in the knowledge society. Some commentators have argued that, as VET systems have sought to structure their outcomes according to employer demand, the competence-approach can be observed across countries (e.g. Straka, 2002).

Many commentators describe the move from a Taylorist/Fordist organisation of work to post-Fordist production methods since the 1980s (e.g. Boreham et al., 2002; Boreham, 2002). The former was geared towards mass production and relied on a strict division of labour, both vertically between different grades of employees and horizontally between departments. The work was organised and directed by managers and executed by operatives, who performed highly fragmented routinised tasks. Economic and technological change, such as the integration of information technology and communications, and the diversification of industries, has gone together with a new organisation of work, with flatter hierarchies, where staff are required to work in teams and across different functions and departments and to be responsible for their own area of activity. With greater use of technology, there has been an increasing demand for 'knowledge', a need to understand the whole work process and being able to deal with 'risk' and unpredictable situations. Employers have placed increasing emphasis on 'soft' skills such as problem-solving, independent decision-making as well as the ability to communicate with colleagues. Because of shorter cycles of innovation, there is also a need for flexibility and a new emphasis on lifelong learning and less on initial VET (Ertl and Sloane, 2004).

In this section, we will look at the development of competence-based approaches in the particular national contexts. It will be argued that the economic change described

above has not been an even or universal process in the four countries. As indicated earlier, the notion of lifelong learning is underpinned by a more functional understanding of employability in England, oriented towards employer demand for low skilled labour, at least in certain sectors of the economy. By contrast, on the Continent, lifelong learning can be seen as a shift of emphasis away from the all-or-nothing approach of initial VET towards a system that enables the acquisition of skills and qualifications beyond IVET, providing both individual lifelong careers and the innovative knowledge required in modern work processes. In a similar vein, there are important differences in the ways in which competence-based VET has been operationalised in practice. These need to be understood within the context of the countries' unique social histories if we are to explain why the responses to socio-economic change are so different. Before examining the different national system, we will have a brief look at the overwhelming range of definitions attached to the concept of competence in the literature.

One confusion is over whether competence serves as an umbrella term for a framework of competencies, or whether competence is one component within a framework. In an attempt to square the circle, the EQF incorporates both definitions. Referring to a competence framework, it distinguishes between sub-categories or 'competencies' of knowledge, skills and competencies, whereby competencies are defined as 'responsibility and autonomy' (EC, 2006). Thus, competence is a sub-category of itself. In their extensive review of the literature, Winterton et al. (2005) cite a vast range of definitions. Woodruffe distinguishes between areas of competence (aspects of the job) and competency (a person's behaviour) (cited in *ibid.*). Others refer to objective competence (performance) and subjective competence (personal abilities or qualities) (*ibid.*). Many authors identify a distinction between an overarching notion of 'being competent' in the workplace (i.e. meeting job demands) and 'having competencies' (possessing the necessary attributes) (Burgoyne cited in Winterton et al., 2005). Such a distinction may be applied across countries, with competencies loosely defined as the components of an overall competence (i.e. most commonly understood to include different types of knowledge, technical skills, social attributes, etc). However, we will demonstrate that it is precisely the definition of 'what makes somebody competent' that varies, i.e., that there are different understandings particularly in terms of the types of knowledge and know-how involved, whether or not they relate to a broad occupational field or a narrowly defined set of activities, how they are acquired and assessed, whether or not they are transferable, and whether they are person- or job-centred.

Following Winterton et al., a distinction can be drawn between two models of competence, each underpinned by a distinct set of epistemological principles: the functionalist-behaviourist model (exemplified by England) and the multi-dimensional model (exemplified by France, the Netherlands, and Germany). We would like to stress at this point that there are of course important differences between the three latter countries, but that the typology has been developed on the basis of principles which are common to them and which sets them apart from the Anglo-Saxon approach.

The functionalist-behaviourist model posits the employee as passive, and as oriented towards the demonstration of prescribed competencies. The approach is 'functionalist' as competencies are grounded in the functional analysis of occupations: They refer to

particular skills necessary to perform specific tasks as specified by employers. It is 'behaviourist' because whether or not somebody has acquired a competence relies on the person's ability to demonstrate performance to the standards required.

The multi-dimensional competence-approach is based on a model of the active employee, who takes an active role in constructing knowledge. Competence is understood as performance in the workplace, i.e. the ability to deal with complex work situations, drawing on multiple resources that the employee brings to the workplace. Thus, competence is a holistic notion, relating to the whole person and including different dimensions (including occupational, personal and inter-personal). Crucially, this approach encapsulates the notion of development of competence (and thus personal development), both through VET and the employee's own experience at the workplace (Rauner, 2004; Straka, 2002; Fischer, 2002; Fischer and Rauner, 2002). Employees acquire resources throughout their work career and are assessed on their ability to mobilise those resources in a given situation, i.e. their performance. Also, while competencies are developed within a work situation, learning theories posit that the corresponding components of learning (knowledge, skills, etc) are articulated and can be transferred to other work situations and processes. Importantly, competencies, like learning outcomes, are negotiated by the social partners, and to some extent incorporate the interests of the employer *and* the employee.

An important distinction is the way in which the two competence models integrate the different types of knowledge. As we have seen in the previous section, the countries of the multi-dimensional model all have a considerable element of school-based learning and theoretical knowledge. In France and the Netherlands, school-based learning dominates, while in Germany, knowledge taught in vocational schools has traditionally been subject-based. In these countries, the shift towards a knowledge based economy has sparked criticism as to the relevance of school-based learning for employment. The debate about competencies and the need for practice-oriented learning has led to a new emphasis on other forms of knowledge, notably tacit and practical knowledge. Theories that attach great value to tacit knowledge and the ways in which it can contribute to overall knowledge creation and innovation have been very influential. Nonaka and Takeuchi have drawn attention to the way in which Japanese companies make use of the largely tacit knowledge of the workforce by providing mechanisms for converting it into explicit and back again into tacit knowledge, thus creating a 'spiral of knowledge'. The idea rests on the assumption that knowledge is primarily tacit and that workers through years of experience develop 'subjective insights, intuitions, and hunches' that form an integral part of their knowledge applied at the workplace (Nonaka and Takeuchi, 1995: 311).

In addition, as already noted, European research has heavily drawn on the US literature which emphasises the role of practical and tacit knowledge, notably the research done by Lave and Wenger (1991) and the notion of a community of practice. The competence-based approaches of the Continental model, while lacking a coherent theory, stress the importance of learning by 'growing into' a community of practice (Weigel and Mulder 2006; Rauner, 2004; Biemans et al., 2004; Wesselink et al., 2006). The approach thus recognises the importance of situated and experiential learning, which is held to be particularly crucial to competence development. Rauner (2004) argues that competencies develop in confrontation with the task itself. Furthermore, competence development goes hand in hand with the development of an

occupational identity. Practical knowledge, or know-how, is now an accepted and distinct form of knowledge, and is not simply derived from formal, theoretical knowledge (ibid.).

It is important to note that the emphasis on tacit and practical knowledge is in the context of VET systems that have traditionally included a substantial body of theoretical knowledge that had come to be regarded as irrelevant to work situations. However, as we will see, it is the particular integration of tacit and practical knowledge with formal knowledge that marks a major distinction between the Anglo-Saxon and Continental models. A common development in the latter countries has been the move from subject-based towards situated or workplace learning (e.g. Sloane, 2004).

Critical for the multi-dimensional model is the notion of work process knowledge<sup>1</sup> first introduced by Kruse (Boreham et al, 2002; Rauner, 2004; Weigel and Mulder, 2006). The term encapsulates the shift towards a new organisation of work in which knowledge of the whole process replaces that of distinct functions (Rauner, 2004). Rauner describes it as a central category of knowledge, which is derived from reflected work experience, and which underpins practice (2004: 14). He goes on to explain that work process knowledge is the integration of context-bound, practical (tacit) knowledge and context-free, theoretical (explicit) knowledge (ibid). Importantly, the resulting work process knowledge itself is explicit.

The concept of knowledge creation through a process of experiential learning and reflection is absent in the English competence model, as is the principle of competence development (Straka, 2004). It appears that, as people are required to perform to narrowly prescribed competencies, they do not have the knowledge, skills or, indeed, the motivation to perform tasks or deal with situations beyond the prescribed outcomes. In what follows we will examine in detail the competence approaches in the individual VET systems.

### Germany

In Germany, *Handlungskompetenz*, or competence of action-taking, (also referred to as *Handlungsfähigkeit* or capability to act) together with its dimensions pertaining to the occupation (Fachkompetenz), the social group (Sozialkompetenz) and the person (Individual- or Humankompetenz) has been the structuring principle of VET since the late 1980s (Ott, 1999; Straka, 2002; Sloane 2004). In contrast to dominant Anglo-Saxon models of VET, the German *Handlungskompetenz* is not only a holistic notion, which comprises particular knowledge, skills and competencies within each of the different dimensions, it is, crucially, tied to a curriculum, most commonly within the dual system of vocational education. The aim of VET, as enshrined in the KMK legislation of 1991, is to enable the student to take autonomous and responsible action within the workplace (Halfpap, 2000). The concept clearly refers to performance in the workplace as conceptualised by John Erpenbeck (2005:11):

*'Competences are about the ability to take action in complex, often chaotic situations. Competence is about performance.'*

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<sup>1</sup> There is a question over whether the German notion of *Arbeitsprozesswissen* should in fact be translated as labour process knowledge to reflect the wider scope of knowledge involved.

The concept is integrative rather than cumulative, relying on the different components of occupational, social and individual competence to come together in a given work situation (Straka, 2002; Sloane, 2004). Just as the notion of *Beruf* comprises a broad spectrum of activities, so are the different dimensions of competence based on broad areas of occupational and industrial knowledge. The notion is holistic, as within the dimension of individual competence it comprises the notion of development of the self (for example, confidence, ability to reflect, social behaviour) both in relation to *the workplace and to society as a whole*. Ott (1999) poignantly sums up the educational mandate of the vocational school, clearly pinpointing the Humboldt idea of *Allgemeine Menschenbildung*: a) the continuation of general education; b) upbringing; c) vocational education; d) non-specific education through an occupation (i.e. character development). The idea of *erzieherische Werte* (bringing up children to embrace certain values) is a dominant principle in German pedagogy, which still holds strong today.

As indicated in the previous section, throughout the past two decades there have been increasing pressures to open up the German dual system, largely by employers as the sharp demarcation of *Berufe* was no longer seen as suited to the accelerating technological developments, one effect of which has been that employers have been increasingly reluctant to offer training places (Boreham, 2002; Halfpap, 2000). Echoing the founders of the NVQ system in England, a major criticism was that theoretical knowledge taught in vocational schools was removed from actual work practice and was therefore inert knowledge. Since the mid-1990s there have been initiatives to orient learning more towards the workplace, the most significant development being the introduction of '*Lernfelder*' or learning fields in the new framework curriculum. Learning fields are a major didactic innovation, structuring learning according to concrete work situations, processes and tasks rather than subjects. The new guidelines place a renewed emphasis on holistic action-oriented learning, promoting occupational as well as social and individual competencies. The new didactic reference point is the situation.

While the implementation of learning fields has been uneven, a number of developments have advanced the notion of situated learning. A number of new occupations have been introduced (notably in ICT) which allow an element of project-based, employer-specific learning, opening up the notion of *Beruf* to include elements of self-directed 'learning through work' and thus enabling flexibility and innovation (Halfpap, 2002; Steedman, 2006; Boreham, 2002). New learning and teaching methods are being piloted in a number of projects across the *Länder* (Halfpap, 2002; Achtenhagen, 2004). While (holistic) competencies are thus developed in work situations, they are tied to a curriculum, in which task-based and project work, individual and group work serve as innovative didactic tools. And while competencies are dependent on the particular context of the work situation, they become transferable through the learning process. As pointed out by Halfpap, the learner assumes a central role, entailing 'a shift from consumer of knowledge towards active producer of knowledge' (Halfpap, 2002: p 43). This constitutes a major shift away from largely imparted knowledge towards experiential learning as advocated by Kerschensteiner (1968). By promoting key faculties of autonomous thinking, learning and action-taking, German VET enables students to determine their own learning and thus develop their own *Handlungskompetenz*.

## France

The concept of competence in France was originally developed by educationalists, such as Bertrand Schwartz in his work on social exclusion and low skills among young people (e.g. Schwartz, 1981). As already indicated in the first section, this approach was quickly taken up by the social partners (employers and unions) who were instrumental in bringing about an outcomes-oriented model and thus a conceptual shift from school-based to work-based learning, for the first time recognising the workplace as a place of learning. Thus, the competence approach was first associated with continuing vocational education and as such is closely bound up with the development of the latter and the notion of lifelong learning. With the changing organisation of work and changing labour markets, successive pieces of legislation provided for individualised training and career planning. In the context of the supremacy of abstract knowledge and initial education, the opening up of education and training to adults and those who had been unable to gain initial qualifications can be seen as the democratisation of VET in France. From the employer's point of view, the notion of the 'learning organisation' encapsulates the importance of lifelong learning for the competitiveness of the company (Méhaut, 1999, Zarifian, 1995, Hoff 2004). Méhaut's study of the role of enterprises in lifelong learning showed the importance of continuous learning in the workplace to meet the demand for new skills, in the context of an initial training system where work experience is largely absent (Méhaut, 1999). Competence-based management based on the analysis of jobs and competencies required was first introduced around 1990 (Mériot, 2005; Weigel and Mulder, 2006). Central to this has been the *bilan de compétences*, which aims at competence development of the individual employee.

With a view to enhancing the practical relevance of a strongly school-based system, a competence-based approach was subsequently introduced into initial VET. Indeed, since 2002, all Diploma qualifications need to follow this model. The introduction of a National Qualifications Framework based on a 'competence grid' together with the recognition of APEL clearly signalled the move away from an input-based model (see Méhaut, 2006). Lists of competencies (*référentiels de certification*) are formulated on the basis of activities or tasks (*référentiels d'activités*) presumed to define a particular occupational role. The process of developing competence-based qualifications appears to be similar to the one in the Netherlands, whereby competencies refer to core abilities of more or less broadly defined occupations (see next section). Importantly, and in contrast to the NVQ system in England, they are developed within a process of negotiation involving both social partners (as opposed to a solely demand-led system), and they are linked to a curriculum. However, and again similarly to the Netherlands, there are tensions between the different stakeholders as to the broadness or narrowness of competencies and the implications for the associated learning programme. Demands by some employers for narrower definitions have met with resistance from teachers. Moreover, there is a debate about whether competencies can be acquired in simulated situations within school-based education (Mériot, 2005). The remainder of this section will focus on the competence model as it applies in employment and continuing education.

As already noted, it is in the particular context of the French education system, in which abstract knowledge is valued above all else, and in which work-based training has been neglected, that we need to understand the value placed on individual

competence. Hoff criticises the almost exclusive attention paid to explicit knowledge in French VET at the expense of tacit forms of knowledge (2004). However, there are crucial differences in the construction of meaning in France of the notion of competence compared with the English NVQ system. As pointed out by Hoff, central to this is the principle of competence development, which, similarly to German VET, relies on the interaction of theory (derived from vocational education) with experience (personal and vocational). She stresses the importance of learning processes through which tacit knowledge is converted into (new) explicit knowledge to make it effective. Rabardel and Duvenci-Langa develop a conceptual framework in which employees produce and improve their competencies through a process of 'constructive activity', by building on external knowledge and integrating it with experience (2002: 67). Without referring to Kerschensteiner, this process is very similar to the latter's account of 'productive work' according to which people construct knowledge by reflecting their experiences on existing, imparted knowledge (Kerschensteiner, 1968). Unlike the theory of social learning put forward by Lave and Wenger (1991), in these models learners do not rely solely on tacit knowledge through imitation and socialisation, but actively relate to their existing theoretical knowledge. Other French authors have referred to similar processes producing knowledge mobilised for successful work performance, referred to as *savoir d'action* (Barbier, cited in Pouget and Osborne, 2004). In all these accounts, tacit knowledge is transformed into explicit knowledge by way of reflective practice (ibid; Eraut, 1994).

Notably, therefore, the French concept of competence is holistic, involving theoretical as well as tacit knowledge (*savoir*) and personal experience, technical know-how (*savoir-faire*), and social competencies (*savoir-être*). As competencies are developed in the workplace they are seen as context-bound and pertaining to the individual. Rabardel and Duvenci-Langa refer to the personal resources that an individual employee draws upon in a given work situation (2004). These resources depend very much on the individual employee, his or her particular knowledge base as well as personal attributes, such as their way of interacting with colleagues and their personal identity (ibid). Crucially, and again in contrast to the English concept, the competence embraces the notion of potentiality. Eraut refers to 'capability', as existing knowledge and skills form the basis for future learning, also in terms of career expectations (1994; Eraut et al., 2000).

There has been a debate in France about ways of assessing competencies. Existing mechanisms are informed by the particular understanding of the term, and thus differ in crucial aspects from the English NVQ system. Pouget and Osborne illustrate vividly how competencies in France are 'validated' rather than 'assessed' (2004). What is validated are the whole range of resources as described above that the employee brings to a post, i.e. over and above what is required and specified in a job description. Methods of validation as identified by Feutrie (cited in ibid) include ways in which employees see themselves in their post, assessing the ways in which they master particular work situations, or assessing potential.

### The Netherlands

In the Netherlands, the stated objectives of the introduction of the competence-based qualifications structure include improving the transparency and flexibility of qualifications, and enabling the quick adaptation of qualifications to changes in the

labour market (ReferNet, 2005). In combination with other elements such as modularisation and APEL, this approach resembles the English NVQ system. However, qualifications are underpinned by a holistic notion of competence, and importantly, they are linked to curricula developed by the social partners and delivered through the VET system. Competence-based VET has been piloted in many areas and is being formally integrated into the VET system as part of the current reforms (ibid., Weigel and Mulder, 2006). Thus, in line with the traditional focus on citizenship, the system has been designed to advance individual career-building and person-centred employability.

As in Germany and France, the notion of competence is multi-dimensional and includes knowledge, skills, and the concept of ‘attitude’, which refers to the moral dimension of action and may be similar to the German notion of ‘*Humankompetenz*’ (Westerhuis, 2006). Indeed, in the absence of an official definition, Mulder’s (2001:9) working definition is reminiscent of the German and French use of capability:

*‘Competence is the capability of a person or an organisation to reach specific achievements. Personal competencies comprise: integrated performance-oriented capabilities, which consist of clusters of knowledge structures and also cognitive, interactive, affective and where necessary psychomotor capabilities, and attitudes and values, which are conditional for carrying out tasks, solving problems and more generally, effectively functioning in a certain profession, organisation, position or role.’*

Like the German notion of *Handlungskompetenz*, this definition refers to integrated capabilities related to performance, although notably, not related to a particular occupation or *Beruf*, but to a broader conception of position or role, or even an organisation. In order to introduce competence-based VET, the current reforms have recognised the need to transform teaching and learning environments. They draw on a range of approaches, including constructivist theories of learning, emphasising situated and experiential learning (Mulder and Sloane, 2004; Simons and Bolthuis, 2004). As in Germany and France, students develop competencies by making explicit and articulating knowledge.

VET reforms are based on two main principles (ReferNet, 2005). Firstly, they firmly embrace the notion of work process knowledge. Secondly, competence development will be tailored to the individual student, their personal capacities and wishes. However, there are fears that students’ wishes may be overridden by employer demands. Similarly, as in all our Continental countries, there are tensions between the different stakeholders in terms of how they conceptualise the competence-based approach, and notably between teaching organisations (as broad, abstract knowledge, driven by learners) and national policy-makers (more outcome-oriented) (Biemans et al., 2004).

### England

As stated earlier, the UK has been a pioneer in Europe in terms of developing a competence-based approach in VET (Winterton et al, 2005). In 1986, the Conservative government set up the National Council for Vocational Qualifications as part of a substantial reorganisation of the VET system in an effort to close the perceived skills gap with other major economies (King, 2001; Boreham, 2002). This

constituted a paradigm shift from a dual system linked to a curriculum to a system based on outcomes – NVQs – which are not linked to a training programme, and which are measured in terms of performance of skills in the workplace (defined as competencies). National Occupational Standards are used to draw up the competencies presumed to be required for certain key roles and jobs, as well as to define the performance criteria against which competencies are assessed (Winterton et al, 2005).

The NVQ system has been widely criticised on a number of grounds, including its lack of underpinning knowledge and the highly fragmented and atomised nature of skills. Michael Young has argued that the kind of knowledge people acquire is the result of power relationships in society (cited in Boreham, 2002). Clearly, the low theoretical content and the narrowness of skills reflect the strongly employer-led nature of and lack of union involvement in the development of qualifications in England. As suggested by Keep, the lack of interest in a broader, comprehensive training must be attributed to the abolition of the tripartite system and the deregulation of the labour market (2007).

The traditional Anglo-Saxon notion of skill and learning on the job, underpinned by minimal knowledge, still underlies the current NVQ model, which clearly echoes the tradition of thought in the writings of Ryle and Oakeshott introduced in the first section. The principal founder of the system, Gilbert Jessup, believed that theoretical knowledge taught in college was inert and of little relevance to practice (Boreham, 2002). His belief that the knowledge needed for the execution of tasks is acquired through experience in the workplace is the main epistemological pillar of the NVQ system. Thus, in contrast to the Continental model, the competence approach in England contains very little input of any formal knowledge and relies heavily on tacit knowledge. There is no notion of an integration of different forms of knowledge, and thus of experiential learning and knowledge creation. The idea of workers following instructions or ‘rules’ in a non-reflective way clearly builds on Oakeshott’s notion of technical knowledge (1962). Biemans et al. (2004: 527) have described the English competence model as:

*‘[a] rigid backward mapping approach, in which the state of the art on the shop floor is the untouchable starting point for the definition of occupational competencies, leading to routinised job descriptions, in which the proactive and reflective worker is left out.’*

It appears therefore that in England, the competence-based approach as operationalised through the NVQ system has not only failed to produce the skills and knowledge base needed for the new knowledge economy, it has actively promoted the production of low-skilled labour that clearly is demanded by some employers.

Indeed, Grugulis et al. (2004) refer to the polarisation of skills in England, where a Taylorist-Fordist system still operates in many parts of the economy. They argue that the competence based approach functions to meet the continued demand for low skilled labour, thus further disadvantaging those in the lower echelons of the labour market (ibid.). Thus, unlike in Germany, France and the Netherlands, employability in England has a functional connotation, serving first and foremost the needs of the economy. Lifelong learning in practice constitutes the accumulation of skills in

relation to a particular job or task, rather than the more holistic career development envisaged in the continental VET systems which includes professional as well as personal growth.

## Conclusions

In the light of the creation of a European Qualifications Framework, this paper has analysed the VET systems of four European countries, England, France, the Netherlands, and Germany, including the national debates and recent developments in these countries, on the basis of a review of the existing literature. In particular, it has explored in detail the distinct meanings attached to some of the key terms which form the basis of the framework: 'qualification', 'knowledge', 'skills', 'competence', and 'learning outcomes'. It is argued that without taking into consideration the diverging understandings of these concepts, it remains questionable whether the aims of the EQF, such as enhancing transferability and comparability, can be fulfilled.

Clearly, there appears to have been some support for the EQF from diverse national stakeholders, underpinned by a desire to develop or revise national qualification frameworks. Within VET systems traditionally based on learning inputs, advocates of learning outcomes have cited socio-economic changes and the need to develop flexible mechanisms of VET, as well as the need to enhance occupational mobility both nationally and internationally.

The four VET systems in this paper are all in a state of flux and have been undergoing major changes over the past two decades. For example, to differing degrees all systems have moved towards greater 'employability' (individualised, flexible VET) away from 'occupational education' (tightly regulated, fixed qualifications), by allowing elements of flexibilisation. However, an analysis of the different contexts and traditions in each country has revealed the very distinct meanings and understandings of different terms and their embeddedness within the VET system and the labour market. While recent developments might signal convergence, e.g. in the shift towards learning outcomes, these need to be understood within these contexts.

This analysis has identified marked differences between the construction of VET in England, on the one hand, and that of the Netherlands, France and Germany, on the other, notwithstanding major differences between the three latter countries. A major distinction is the differing relationship between theoretical and practical knowledge involved in qualifications. In our three continental countries, qualifications have traditionally included a high theoretical content, as well as the notion of personal development and civic education. As we have seen, all three have modified their VET inputs in response to the need for more practice-oriented learning. However, on the continent, this has led to the *reconfiguration* of theoretical knowledge rather than its eradication. There has been a greater emphasis on situated, experiential learning, and on the need to value different forms of knowledge, both tacit and explicit. The idea of integrating theory and practice is accentuated in the notion of competence, which captures the bringing together of different resources and applying them to a given work situation. Importantly, competence in the continental countries is understood as a multi-dimensional concept. The individual develops competencies by applying aspects of the whole person, including the ability to reflect on situations and on one's

own actions. It is in this way that students and workers are posited to become producers of knowledge, central to the success of the knowledge-based economy.

‘Employability’ in these countries, therefore, is not solely or primarily focused on the interests of employers, securing an innovative knowledge base. Particularly in France and the Netherlands, policy initiatives have embraced the notion of a *right* to a lifelong career, enabling individual employees to adapt to a changing labour market by providing mechanisms that facilitate learning and occupational mobility. In the same way, the drive towards learning outcomes stems from the perceived need to transform and open up systems traditionally designed as inputs.

By contrast, VET in England is in danger of continuing to be equated with failure, as the academic route remains unreformed. Initial as well as continuing VET is dominated by the NVQ system which takes ‘learning outcomes’ at its most literal. Qualifications are awarded on the basis of performance in the workplace against criteria set by employers. Typically, these are narrow sets of skills. VET lacks a developed notion of citizenship and neglects general education and any form of development of the person. Thus, arguably, employability refers to a functionalist interpretation of lifelong learning which may ultimately impede occupational mobility.

Importantly, the competence-based approach lacks any notion of competence development and occupational identity. In the context of low theoretical content, narrow skills and lack of general education, people tend to perform to the standards as defined by employers. Other dimensions of competence, such as social and personal competencies, are neither required nor recognised. The low requirements and restrictive nature of vocational qualifications also suggest that people may not rise beyond prescribed standards as they simply lack the skills, knowledge or motivation to do so. As competencies are thus narrowly defined, this may also impede the development of occupational identity, so crucial in the continental competence model.

Finally, it is arguable that the VET system as it currently stands perpetuates a low-skilled labour-intensive economy, as employers continue to build on traditional skills, ‘the skills of yesterday’, thus restricting the capacity for the development of new skills areas (Clarke and Winch, 2004: 515). This is of particular significance in the light of the recent Leitch Review of Skills (2006). Leitch recognises the crucial importance of upgrading the UK skills base if economic competitiveness is to be achieved. In view of the current situation in England, this is likely to prove a major challenge.

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