ComProCom

COMMUNICATING
PROFESSIONAL COMPETENCE

Models and uses of 'competence' in six EU countries' VET systems

Cross-partner report on the
reviews of the current situation

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CONTENTS

1. Introduction

The idea of 'competence' is widely used in Europe both in relation to specific occupations and professions, as well as in national and EU-wide vocational education and training (VET) developments, especially the European Qualifications Framework (EQF)[1]. Examination of competence standards and frameworks from around Europe suggests that there are differing interpretations of what is meant by 'competence'; not all frameworks are particularly well researched, structured or expressed; and many lack the flexibility and depth needed to be adequate especially for high-level roles. The way that 'competence' is used in the EQF level statements[2], to mean responsibility and autonomy, is also somewhat idiosyncratic[3], and many users of the framework have struggled to develop statements of competence that are sufficiently different from statements of skills while also not simply being descriptions of work responsibilities.

The Erasmus+ project *ComProCom* aims to improve the way that professional competence is described and represented, particularly for occupations at higher levels. It aims to provide a flexible approach for taking principles and methodologies from (among other sources) the best examples of UK professional standards frameworks (as opposed to occupational standards in the VET system), and applying, adapting and learning from them in professional and VET contexts in five further partner countries, each in a different occupational sector. The first step in doing this was to describe and analyse the main approaches taken to 'competence' in each of the partner countries: UK, Poland, Greece, Germany, Ireland and Austria.

This summary report summarises the results of the desk research by each project partner (carried out September to December 2015), and adds further material and synthesis. The report presents *inter alia*: conceptual models and development methodologies used in each country, the type of bodies responsible for the various standards, how they are used, involvement of stakeholders from the labour market, and where available feedback from users[4].

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[1] Useful discussions are provided by among others Le Deist and Winterton (2005) and Winterton (2009).
[2] European Communities (2008).
[3] See for instance Winterton (2009) and Lester (2015a).
[4] Each country's review will be available on the project website www.comprocom.eu.

2. Context

2.1. General perspectives on competence[5]

The Oxford English Dictionary describes competence as 'the ability to do something successfully or efficiently', while the International Standards Organisation definition[6] is 'the ability to apply knowledge and skills to achieve intended results'. These apparently straightforward definitions still leave plenty of room to discuss how to define the 'something' is that is to be done, and what is meant by 'successfully or efficiently'.

For the purposes of this analysis, it is worth distinguishing between perspectives on competence that are primarily educational, professional or occupational, and organisational. An educational perspective will generally be concerned with what a person can do at the end of a defined educational process, to a standard that represents a reasonable expectation at that point. Competence in an educational context is sometimes used as a synonym for 'skills', but more properly it concerns the whole range of abilities relevant to the aims of the programme or curriculum (and it is not limited to work-related competence).

A professional or occupational[7] perspective will aim to consider what it is that the person needs to be able to do in order to act effectively in the profession or occupation. It may be concerned with the minimum standard for working in the occupation, a level appropriate for independent practice, or sometimes (in addition) advanced practice. Within this perspective a number of different approaches, from narrow/task-based to broad/profession or *Beruf*-based, are possible.

An organisational perspective will be concerned with what is needed in the context of a particular organisation, and will normally be influenced by the organisation's goals, values and operating context. It may be concerned either with baseline standards and behaviours or with aspirational ones, or both. A major difference between organisational and professional frameworks is that the former are rarely used for formal assessment, and therefore tend to be geared primarily to development. They are more commonly concerned with generic rather than technical abilities.

The project (and this report) focuses on occupational/professional perspectives, although it is noted that in some of the project countries occupational competence is generally articulated through education and training instruments such as *Berufsbilder* in Germany and Austria or qualification specifications in Ireland.

2.2. Different concepts of competence used in Europe

A further conceptual distinction made by Mansfield (1989), Eraut (1998) and some subsequent authors is between 'internal' and 'external' perspectives on competence. An individual, internal, attributes-based perspective is concerned with the properties or competencies (skills, knowledge, behaviours, attitudes, motivations and so forth) that a person has that enable him or her to act competently in various situations. Competency of this kind can be regarded as belonging to the

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[5] Sections 2.1 and 2.2 are partly adapted from Lester, S. (2014a/b, 2016).
[6] ISO (2012).
[7] 'Profession' generally is used here to mean an occupation that requires a high level of knowledge and a commitment to a code of practice or a more general ethos, and that is often (but not always) governed by some form of authoritative membership or registration body. However, in some instances 'profession' or 'professional' is used to translate a cognate that has a broader meaning, e.g. *zawód*.

person. A social, external, activity- or outcomes-based perspective considers what it is that the person does to produce a result that can be considered to be competent, whether in a study context, social situation, or more commonly at work. Competence in this sense belongs to the context, describing competent actions (sometimes termed 'competences' as opposed to 'competencies') rather than the skills or attributes that contribute to being able to carry them out. Winterton (2009) comments that it is difficult to distinguish pure versions of either, but they provide a useful classification to distinguish different starting-points for constructing competence descriptions or standards.

Table 1. Internal and external approaches to 'competence'

Approach	Primary source(s) in English	Main development methodologies	Common formats
Internal, individual, attribute-based ('competency')			
Technocratic or syllabus-led		Derived from knowledge-base or course syllabus	Tasks expressed as application of knowledge
Instructional design	Draws on Bloom *et al* taxonomy of educational objectives	Job analysis, learning needs analysis	Table of (tasks with associated) knowledge, skills and (often) attitudes associated with the job
Behavioural	McBer organisation and associated authors e.g. McClelland, Spencer and Spencer, Boyatzis, Klemp.	Critical incident analysis, repertory grid technique and variants	Behaviours, approaches and attributes associated with effective job performance
External, social, activity-based ('competence')			
Task-based	Work study e.g. Gilbreth, UK youth training literature	Task analysis, DACUM	Descriptions of tasks and their component parts
Role-based	Mansfield-Mathews Job Competence Model, Mansfield & Mitchell	Functional analysis	Descriptions of job functions and detailed activities within them
Profession-based	Core capability (Lester), occupational capacity (Winch)	Analysis of activities across profession, role mapping	Descriptions of activities central to profession

Adapted from Lester (2014b).

The internal or attributes-based approach has become widely used in North America as a means of developing content for professional education programmes, while in Europe its main use has been to inform organisational competency or development frameworks. Competency frameworks in this sense have been developed for specific job roles, through broad occupational areas, to generic attributes for educational or career success. It suffers from two drawbacks: first, that 'having competencies' is not the same as 'being competent' (i.e. there can be a gap between acquiring knowledge and skills and demonstrating behaviours, and being able to use them to be effective in a profession or occupation), and second, that the inclusion of behavioural and attitudinal properties can lead to prejudicial requirements based on correlations rather than necessary conditions – i.e. criteria are set that reflect the characteristics of existing job-holders.

The external or activity-based approach has found more favour in Europe, where it is used to support 'outcome-based' models of training and assessment. In this latter context a particular version of the activity-based approach – the job competence model based on functional analysis, a deductive approach to dividing up occupational roles into increasingly detailed descriptions of activity – was widely used to derive occupationally-based competence frameworks, particularly in

the UK but at one time also promoted via CEDEFOP and the European Training Foundation[8]. A specific drawback of external approaches is that they only describe what a competent person needs to be able to do, and leave aside what is needed to get there, necessitating a separate schema to inform education and training. Task- and functionally-based versions of competence are also frequently criticised as too narrow particularly (but not only) for higher-level occupations, where competent performance across a range of functions rarely adds up to genuine occupational capacity or professional capability.

The third and final conceptual distinction that will be made here is between occupational, role-based or bounded-occupation models, and those that take a professional, core capability or centre-outwards approach[9]. The bounded-occupation perspective is the one generally reflected in occupational standards where attempts are made to classify and catalogue occupations according to ISCO (International Standard Classification of Occupations) or a similar taxonomy. It is sometimes also used for licensing for legally reserved activities, where a detailed description is required of an activity or set of tasks defined by statute. It is concerned with describing competence for occupational roles, which are typically defined in terms of functions, with standards applying to each function. Commonly this results in a set of core standards for the occupation or sector, plus different standards for different roles, specialisms and sometimes contexts.

The centre-outwards approach is becoming more widely used by professional bodies that set standards of practice. It is concerned with the capability needed to act effectively as a member of the profession, recognising that the roles and functions that practitioners undertake can vary and will also evolve with their careers and as society and technology develop. It typically conceptualises the profession in terms of a single set of ethics, principles and key standards, emphasising activities and requirements that apply across the profession's work rather than attempting to map detailed functions and tasks. In a centre-outwards model, the standards are designed to provide confidence not only in practitioners' ability to act competently in specific situations, but to work effectively – currently and into the future – within the profession. Centre-outwards standards are normally 'universal' in that they apply to all practitioners in the profession, rather than having a core-and-specialist structure.

Hybrid approaches are also possible, so that a predominantly centre-outwards model can include more detail on critical functions, or a bounded-occupation model incorporates a core that has some elements of the centre-outwards model.

2.3. The link between employment and education

A model of the interaction process between the subsystems of work and education can be presented in the form of a feedback loop or continuing communication process (Fretwell 2001), where standards play a mediating role. In this model the world of work formulates employment requirements (occupational/professional standards), and the world of education responds with adequate training specifications (educational standards). Qualifications are the result of interactions between the worlds of work (embodied by social partners, professional associations, employments services, etc.) and of education (training providers, teachers, awarding bodies, education ministries, etc.).

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[8] e.g. via the Mansfield-Schmidt model (Mansfield and Schmidt 2001).
[9] See Lester (2014c).

Figure 1:   The feedback-loop between the labour market and education
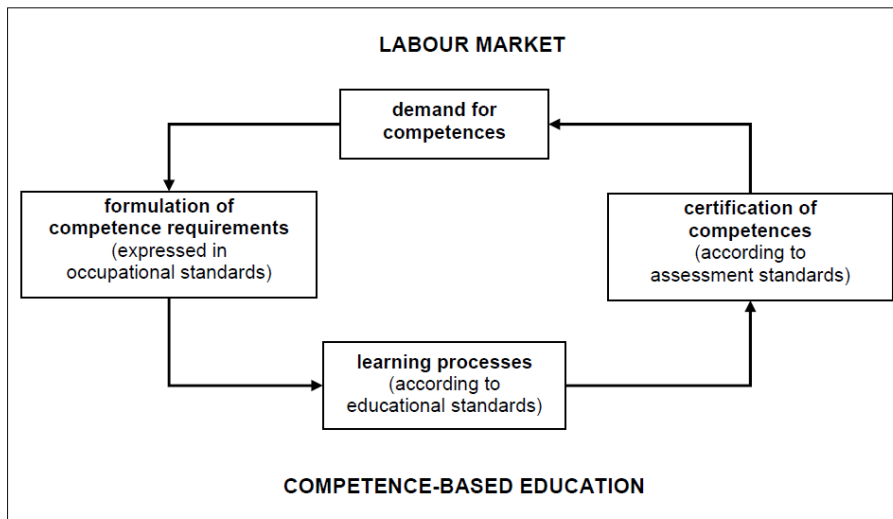
Source: CEDEFOP 2009, p.15

   In VET systems of this type a distinction is made between occupational standards, which 'belong' as appropriate to industry or the professions, and educational standards or learning outcomes, which in this context form the response of the educational system to them. Systematic efforts to develop occupational standards (as was done in the UK) can be viewed as an attempt to shape supply-side (educational) interventions to better match demand-side (employment) requirements. Typically, there is separation between the institutions responsible for each part of the system that can be reflected through to the level of government departments or ministries. In principle this has been associated most strongly with liberal market economies such as those of the UK and Australia.

   In other systems, archetypally though not exclusively associated with co-ordinated economies such as those of Germany and the Nordic countries, a more co-ordinated or partnership model exists where the distinction between educational and employment interests is less stark, and the VET system operates to create dialogue between them. This is typified in the German 'dual' system, where competence requirements are developed via a partnership approach and expressed through training standards (*Berufsbilder*) rather than through separate occupational standards.

3. The situation in the project countries

The aim of this chapter is to summarise the situation in each of the six partner countries as at the end of 2015. The summaries are based on the national reports developed by each of the project partners, which will be available on the project web site.

3.1. United Kingdom

The UK[10] has what might be termed an open VET system, with competition between providers and qualification awarding bodies, and loosely co-ordinated links with the labour market. VET (other than high-level professional education) has traditionally been seen as having a lower status than general or academic education, something that successive reforms have had little success in remedying; recently, the introduction of 'dual'-type apprenticeships leading to traditionally graduate careers (and sometimes incorporating degrees) appears to be starting to overcome the 'academic-vocational divide'. There is a strong tradition of self-governing professions, most of which operate outside of direct state control and are responsible for standards of entry and practice in their areas; in many higher-level occupations, gaining qualified status with the relevant association or regulator is essential or provides access to improved career or business opportunities.

The UK started to develop a comprehensive system of competence standards (National Occupational Standards, NOS), particularly for occupations at EQF level 4 and below, from the late 1980s. This formed part of a state initiative to reform vocational qualifications, improve their coverage, and make them more responsive to industry needs; it was initially led by agencies attached to the then Employment Department, rather than the Department for Education. Initially over 200 nominally industry-led bodies were approved to develop the standards, progressively reduced to 21 Sector Skills Councils. NOS formed the basis of National Vocational Qualifications (NVQs), which were the default qualifications for part-time VET for over 20 years. NOS coverage is fairly comprehensive up to the equivalent of EQF level 4, and patchier for occupations that equate to levels 5-7. Many NOS were unduly prescriptive and detailed, and although incremental improvements have been made, the overall picture in the UK VET sector in terms of the conceptualisation of competence is one of consolidation around a model developed nearly thirty years ago. Very recently the UK Commission for Employment and Skills, the body that oversees NOS, has started to explore alternative approaches to occupational standards via a series of industry projects.

More innovative approaches to competence standards have recently appeared in the professional sector, where some professional bodies have developed competence frameworks that are designed to apply in a wide range of contexts and be flexible enough to cope with changing practices. Some professions have developed standards based on an external, centre-outwards model that are more holistic and concise than NOS, and at least for some applications offer a preferable approach. Increasing numbers of professions are developing competence or practising standards particularly to support assessment for licensing or qualified status.

Recent changes to qualification frameworks and apprenticeship specifications have resulted in NOS playing a less central role in VET, although they are widely supported in some industry sectors. From 2008 onwards the direct linkage between NOS and vocational qualification content

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[10] There are differences in the VET and qualification systems between the constituent parts of the UK; most of what is described here applies across the UK.

was broken, and neither vocational qualifications nor apprenticeship specifications are now required to make reference to NOS; new, concise apprenticeship standards (a sort of British *Berufsbild*, though without the formal status of the German version) were introduced in 2013 partly in response to dissatisfaction with the high level of prescriptiveness and detail represented by NOS. It is likely that as further reforms are introduced, NOS will disappear in areas where they do not have strong industry backing.

Models and methodologies

The UK occupational standards programme adopted by 1990 a standard approach, nominally informed by the Mansfield-Mathews job competence model and **based on processes of occupational and functional analysis**, and this has remained the official orthodoxy; although some evolution has taken place, only very recently have alternatives been considered. Occupational analysis aims to map out the relevant occupation and the main roles within it, and identify key trends in its work and how it is organised. Functional analysis is a deductive process that starts with the purpose of an occupation, and breaks it down into successively more detailed functions, until assessable criteria are reached. This approach can be characterised as **occupational rather than educational in focus; external and functional in approach; and based on bounded occupational roles, often with several related roles covered by common plus specialist standards.** Much of the criticism of NOS has come from the relatively rigid nature of functional analysis, its tendency to break down occupations in a hierarchy of detail, and the fact that it is a deductive technique rather than a research method; it also tends to be poor at capturing the more subtle aspects of competence valued particularly in professions.

Professions are much more variable in the methodologies they use, ranging from having expert committees draw up unresearched lists of tasks or attributes, through to in-depth research into what practitioners do. Leading-edge ('second-generation') examples are characterised by an approach that can be described as **external, centre-outwards and universal** (i.e. it aims to capture key standards and practices that apply across the profession rather than having separate descriptions based on occupational roles).

3.2.   Poland

Work on the standardisation of professional competences in Poland has been in progress for almost 20 years. There were no bottom-up or ongoing initiatives, originating from the world of labour, but rather projects were co-financed with specific programmes under the supervision of the Ministry of Labour and Social Policy (MPiPS).

The Polish approach to defining professional competence standards (*Krajowy Standard Kompetencji Zawodowych*) gives a key role to employers, industry organisations, and professional associations as the sources of information on the required standards. The employers' expectations and needs are defined as the results of the studies of real jobs (an expert team is constituted and develops a questionnaire to carry out a field study of work content). Input competences for each key task are described in three categories: skills, knowledge, and personal and social competence. This enables sets of employers' requirements to be transposed into learning outcomes and referred to the European and Polish Qualifications Frameworks[11].

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[11] Bednarczyk *et al* (2014)

Professional competence standards do not constitute a legally required document. They are recommended by MPiPS to be used by interested entities; these include the public employment service, ministries and central offices, institutions responsible for regulated professions and for exams confirming qualifications, professional associations, organisations of employers, unions, schools, public centres for vocational education and training, and private training institutions and employment agencies[12].

The professional competence standardisation process in Poland is not too advanced. So far the standards have been developed for 553 occupations or professions, which constitutes approximately 20% of all occupations (2,443) in the Polish labour market classification. Of these, 300 sets of standards have been prepared according to a revised methodology adjusted to improve compatibility with the EQF (in 2012-2013). Priority has been given to standards for occupations/professions at EQF levels 3 to 7, with half of the revised standards relating to levels 6 or 7, and to competences acquired mainly in the course of non-formal education and informal learning. So far there has been no research concerning the use of professional competence standards or their effectiveness in Poland.

Models and methodologies

The methodology of the development of professional competences standards in Poland combines **a research-based method (task analysis) and an 'expert method' (Delphi technique)**. Polish competence standards are defined on the base on information gathered through research in companies and interviews with professionals in order to analyse the workplace and job requirements. In an initial phase, representatives from the relevant professional associations, social partners, experts in work analysis, labour psychology, pedagogy and vocational counselling, develop a proposal of the profession's description, including the list of professional tasks and competence (and the description of requirements in terms of knowledge, skills, social and core competences) in the form of a survey questionnaire. At least 15 professionals and human resource managers respond to that questionnaire. On the base of the results of the assessment of competence required by employers, team of experts develop the draft description of the professional competence standard. The draft description is evaluated by external evaluators from recognised authorities and practitioners of the profession, then extensively reviewed by representatives from education providers and universities. In the final phase the professional competence standard is approved by the industry commission for the relevant profession and added to a database operated by the Ministry of Labour and Social Policy (MPiPS).

Referring to the different concepts of competence, the Polish approach uses **a professionally oriented** one, **with an external approach to competence used for the structure, but an internal one for the detail**. Polish occupational/professional competence standards define what the person is able to do in practice (a task-based external approach), but on the other hand competences are described in the categories of skills, knowledge, personal and social competences. Polish competence standards are **more bounded-occupation** than centre-outwards, although each set of standards is universal, without a core and specialist or similar structure.

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[12] Symela (2014)

3.3.   Greece

An initiative to standardise professional qualifications through occupational profiles was initiated in Greece in 2000; as in Poland and the UK, this was a state initiative. It was related to the formulation of the national lifelong learning policy, including a comprehensive legislative and institutional framework. According to the Greek law, occupational profiles (OPs, *επαγγελματικά περιγράμματα*) are defined as: "All the main and individual professional activities that form the work objective of a profession or a specialty, as well as the corresponding knowledge, skills and abilities needed to respond to these activities"[13]. Based on that definition, the content of the OPs focused on three areas: the content of the occupation, the competences required, and the educational/training paths for the acquisition of those competences.

202 OPs were developed in the period 2008–2010 with funding from the then Community Support Framework, based on a common methodology and structure. In this sense the whole procedure for the development of OPs can be regarded as a one-off co-funded project implemented in a specific timeframe rather than an ongoing process. The core part of a Greek occupational profile is a description of work processes in the form of an analysis of professional functions. The relevant parts of each OP are relatable to the European classification systems ISCED, EQF, and ECVET. All existing OPs relate to occupations up to ISCED level 4; as yet none have been developed above this level.

So far, the developments as regards the OPs indicate that they haven't found their 'place' in the labour market and/or VET. They remain static, as an institutional requirement for the accreditation of VET programmes or as a pathway to professional accreditation and licensing, and have not become widely regarded as a useful and practical tool. The OPs have received criticism about their need for updating and their discouraging structure and length (the average number of pages is 100).

<u>Models and methodologies</u>

The methodology used for the development of of professional profiles in Greece centres around a **mix of expert and research methods**, employing desk research, Delphi technique, and interviews. The Delphi method for occupational analysis is conducted at four levels: key occupational functions, occupational activities, occupational tasks, and knowledge, skills and abilities.

For the development of the existing OPs, a bilateral committee and corresponding advisory committee was formed for each occupation. The working groups consist of experts familiar with the development of OPs, and representatives of employers and employees. The procedure is as follows:

- Development of the draft description of the profession by expert team (in the form of a questionnaire);
- Testing of the list of necessary knowledge, skills and abilities (based on desk research and experts' views) against the views of professionals, managers, employees, employers and people working in 'neighbouring professions' (at least 10 in-depth interviews are conducted);
- Development of the final list of knowledge, skills and abilities per task and per individual professional function (activity) by the experts on the basis of interview analysis, the outcomes of the desk research and the application of Delphi method;
- Reviewing and feedback by associations of both employers and employees;

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[13] Law 3879/2010.

- Development of the suggested pathways for the acquisition of professional competences and the method(s) for their assessment by experts at the level of tasks and activities;
- Final review and feedback by associations of both employers and employees.

Analysing the Greek national report occupational profiles seem to be **occupationally-oriented, with both internal and external components. They appear more bounded-occupation** than centre-outwards in approach.

3.4.   Ireland

The idea of competence is widely used and understood in Ireland, although there are no national occupational standards or profiles similar to those used in the three countries described above. In the VET system (referred to as further education and training, FET), the development of standards of competence is intertwined with the process for developing award specifications in the National Framework of Qualifications (NFQ).

The NQF, which was introduced in 2003 and is now referenced to the EQF, has ten levels based on the principle of learning outcomes. The outcomes within any given qualification describe what learners should know, understand and be able to do. It means that the learning outcomes are reflected in statements of Knowledge, Skills and Competence. Qualifications can be practically-oriented or more purely knowledge-based. These specifications are then interpreted into VET curricula (or higher education programmes as relevant). A single strategic agency, SOLAS, is responsible for both the FET sector (including apprenticeships) and labour market intelligence, while the national qualifications and quality assurance agency Quality and Qualifications Ireland (QQI) takes responsibility for approving qualification specifications.

Like the UK, Ireland has a large independent professional body sector. Again as with the UK some professions are subject to statutory regulation while others regulate themselves through voluntary arrangements. Reference to 'competence schemes' in many professional contexts relates to ongoing professional development and postgraduate courses, without any associated standards of practice; other references to competence-based programmes generally relate to qualifications in the NFQ.   Some professions have however developed competence or practising standards for applications such as licensing or granting qualified status, and there is a certain amount of sharing of standards with the UK particularly where professional bodies operate cross-border.

Models and methodologies

To ensure maximum economic and social relevance all VET qualifications development work must be underpinned by research on sectoral requirements in terms of identifying the knowledge, skill and competence requirements for specific areas and/or occupations within the sector. Sectoral needs analysis is informed by the research activities and other outputs of national and sectoral bodies. Specifications for VET qualifications are developed by a standards development group that aims to draw on all sectoral stakeholders, including particularly representatives of industry. There is no standard development methodology in the sense understood in Greece, Poland or the UK, but the specifications do need to conform to a standard template and structure provided by QQI. This structure is based on learning outcomes rather than any particular model of competence, and could reflect both internal or external approaches to competence, or a combination of the two.

The approaches used by professional bodies vary, and include various types of internal and external model. As in the UK, leading-edge examples tend to be external, centre-outwards and universal in approach.

3.5. Germany

Germany has one of the longest and richest traditions in Europe of using the concept of competence, which appeared in the recommendations of the German educational council as early as the 1970s. The concept of *Kompetenz* as used in the educational system is based on a reasonably holistic notion of the abilities of the person, perhaps closer to the idea of capability in English; a recent definition is 'integrating knowledge, methods, social and personal skills and abilities in the capacity to act'[14]. For work-based training the concept of occupational capability or capacity (*berufliche Handlungsfähigkeit*) is more commonly used; this is broader and more integrated in nature than the functional competence model developed in the UK, and implies the ability to act independently and effectively in work, social and personal contexts. In both contexts competence is distinguished from learning success as represented by qualifications; however similar principles are used to underpin the concept of action competence (*Handlungskompetenz*) as used in the national qualifications framework (DQR), which is operationalised as a structure of four fields (knowledge, skills, social competence and autonomy or self-reliance).

As with Ireland, Germany uses the idea of competence widely but without having occupational standards separate to the standards contained in training specifications (*Berufsbilder*). The Vocational Training Act, which regulates the workplace-based component of VET, came into force in 1969 and was revised in 2005. Under the provisions of this Act, the training regulations and standards are defined for initial training in the 'dual' apprenticeship system (the *Ausbildungsordnungen*), as well as the requirements for higher-level designations such as Meister and Fachwirt (*Fortbildungsordnungen*). In the dual system, each occupation (*Beruf*) has an *Ausbildungsordnung* consisting of an *Ausbildungsprofil* (effectively an occupational standard), an *Ausbildungsrahmenplan* (framework curriculum of knowledge, skills and capabilities), and a set of examination requirements. The *Ausbildungsrahmenplan* for in-company training is complemented by a curriculum (*Rahmenlehrplan*) for the vocational school, which is governed by a different set of regulations. There are currently approximately 330 occupations defined at national level via *Ausbildungsordnungen*, some with single profiles and some with two or more specialisms; 29 of these were newly endorsed over the last decade.

At the upper levels, professional occupations are generally entered via a university qualification plus a postgraduate training period and completion of examinations set or endorsed at state (*Länder*) level. Progression to higher levels also takes place via *Meister*, Specjalista and equivalent designations, which are regarded as at the same level (DQR/EQF level 6) as a degree and typically lead to specialist or managerial roles, or self-employment or entrepreneurship. The regulations for award of these designations (*Fortbildungsordnungen*) specify the admission requirements and the examination content and procedure as opposed to the content or process of training; providers are free to design courses as they wish, and candidates who meet the entry requirements can be assessed without the need for formal preparation (though less than 5% actually choose to do so). Around 730 *Fortbildungsordnungen* are currently defined, 90 nationally (federal) and the rest at state (land) level.

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[14] KMK (2004).

A few industries and professions have developed competence frameworks separate from training regulations or professional examinations, including the chemical, water and IT industries. These are not substitutes for *Ausbildungsordnungen,* but can underpin alternative, non-statutory training routes and forms of certification particularly at the higher levels. A certain amount of tension can be seen between the high-quality, in-depth preparation represented by traditional training routes, and the mainly company-driven demands for shorter, more flexible and in some cases less formal programmes of training to support emerging occupations, changes in technology and more flexible employment practices. There is a certain amount of concern about the EQF and to a lesser extent DQR as promoting a unitised and potentially more superficial approach to training and competence, which while having some advantages (including recognising learning from outside of the formal systems) has also been viewed as risking undermining the depth provided by the dual system.

Models and methodologies

The development of *Ausbildungsordnungen* is highly regulated and requires the involvement of the federal government, employers, unions and the federal VET research body BIBB, which has a mediating and research role. BIBB works with an expert group drawn from employers' and employees' associations, who draft the framework according to a standard template. Following approval first by BiBB and then by the relevant federal ministry, the specification becomes a legally binding document. As in the Irish system, different empirical methods can be used for developing the content, and the content is expressed as learning outcomes rather than separate practising standards. As previously mentioned the *Fortbildungsordnungen* are mostly developed at state level, and are generally initiated by chambers, professional bodies, or trades unions; development involves a similar level of partnership to initial training regulations.

Where competence standards have been developed outside of the official system, these have generally been the result of industry-led or partnership projects, and have followed various approaches including ones informed by a loose form of functional analysis and by the knowledge-skills-competence structure of the EQF.

3.6. Austria

The Austrian VET system has been influenced by the German one and similarly to it, it is strong, well-regarded, highly regulated and based on the participation of social partners (employees and employers) in defining training and qualification standards. As in Germany there is a strong dual system (i.e. apprenticeship with part-time course, each with separate regulations), but sequential VET (a full-time course followed by employment) is now at least as popular.

The idea of competence has become widely used since the 1990s, and Austrian conceptions are broadly similar to German ones. Competence is viewed as having four dimensions: occupational competence, personal competence, methodological competence (flexibility, self-directed learning, independent problem-solving and accountability) and social competence (openness toward the world and environmental awareness, team spirit, work ethics, and communication). As in Germany, there are in general no competence or practising standards associated with occupations separate from the *Berufsbilder* (training regulations) and occupational qualifications.

Work-related competence is expressed in both the educational standards for each VET area, where (other than in higher education) curricula are regulated by the federal ministry of education

(BMUKK), and in the *Berufsbilder*, which specify the work-based part of apprenticeships and are regulated by the ministry for the economy (BMWFJ). Educational standards refer to 'subject-matter competence' and from 2004 they have been formulated as learning outcomes, these being incorporated into vocational curricula when they are redesigned. Currently 1795 occupations, with the relevant training routes, are listed on the Austrian *Berufslexikon*. There has been some criticism of some of the educational standards as not matching particularly well to labour market needs.

A number of projects have taken place to develop competence standards outside of the official VET system, in areas such as vocational teaching, work-based training, and multimedia development. These have as yet not had any significant impact on national systems.

Models and methodologies

The development of *Berufsbilder* follow a similar approach to Germany, with development led by the research bodies IBW and ÖIBF in conjunction with employers, employee representatives and professional organisations before approval by the Ministry. The final documents specify activities or tasks and the corresponding knowledge and skills to be acquired. As in Germany there is not a standard methodology for developing the content of the *Berufsbilder*.

Educational curricula are developed by a committee including representation from the Ministry, educators, industry, and social partners.

4. A comparison of the partner countries

This chapter draws out similarities and differences between the six partner countries across different areas.

Comparing the way that 'competence' is put into practice through different VET systems suggests that, beyond the similarity suggested by the common understanding of 'ability to do something successfully or efficiently', countries (and different systems within countries) vary in terms of:

- whether and which specific concepts of competence are used (i.e. internal/external, bounded-occupation or centre-outwards);
- whether the descriptions tend to be reasonably holistic or focussed on tasks and functions;
- whether there are separate occupational standards (and if so to what extent these are used to inform qualification or curriculum content), or whether these are articulated only in qualification specifications or VET curricula;
- the degree of standardisation of official descriptions, both in terms of the methodology used and the format of the framework or specification;
- how and to what extent different stakeholders are involved in the development process;
- and whether there is an official relationship between descriptions of competence and national qualifications frameworks.

The following sections explore some of these differences and put them into context.

4.1. Different types of competence standard

Table 2. Types of occupational standards in Europe

OS= classification of the main jobs	OS= benchmark for assessing professional performance	OS= occupational profile associated with a qualification	No OS at all
• France (*référentiel metier*) • Greece • Romania • Slovenia • Switzerland (*Tätigkeitsprofil*)	• Belgium (*beroepscompetentie profiel*) • Lithuania • Malta • Poland • United Kingdom	• Austria • Belgium (*profil de qulification*) • Estonia • France (*référentiel d'activité*) • Hungary • Italy • Latvia • Luxemburg • Portugal • Spain • Switzerland (*Qualificationsprofile*) • Turkey	Bulgaria Cyprus Czech Republic Denmark Finland Germany Iceland Ireland Liechtenstein Norway Slovakia Sweden

Source: CEDEFOP 2009, p.23.

CEDEFOP has attempted to classify occupational standards (OS) according to their relationship to the qualifications system in their respective countries[15] (see table 2). For the partner countries, this is roughly confirmed by ComProCom, although in some cases it is apparent that the categories used by CEDEFOP blur into each other.

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[15] CEDEFOP 2009.

A first group of occupational standards is primarily conceived as **a classification system** providing categories for statistical monitoring of the labour market. Among the ComProCom countries, Greece takes such an approach. The key features of these standards is their comprehensiveness they attempt to systematically register and describe all 'the main jobs that people do' in the country, typically in accordance with a classification such as ISCO. Although OS of this type do not always express the competence requirements of the labour market, the Greek model does and could be considered as overlapping into the second CEDEFOP category.

A second group of OS takes the form of **benchmarks for assessing occupational performance**, in either a work or an education context. Like the standards in the first group, they aim to include all or most of the occupations existing on the labour market. These are generally **based on some form of systematic work analysis** and incorporate performance requirements, meaning that they are assessable. The national occupational standards (NOS) in the United Kingdom and the standards of professional competence in Poland fall into this category. Many of the practising standards used by professional bodies in both the UK and Ireland could also be placed here, as could some of the frameworks developed outside of the mainstream VET system in Germany and Austria.

A third group of OS describe the occupation to which a specific qualification or training process should lead. In this case, **occupational standards are developed in an integrated process with educational standards**. For each qualification, occupational standards are developed first to serve as a basis for defining educational and assessment standards; they do not have (an official) function outside the VET system. This is a model typical for co-ordinated VET systems, where qualifications are awarded by the state (sometimes in cooperation with social partners), and where one qualification corresponds to one occupational profile. The fourth group includes countries where there are no OS as such.

In practice, it can be difficult to distinguish whether qualification specifications or VET curricula incorporate an 'occupational' standard or not. Germany and Austria both have training specifications (*Berufsbilder*) that can also be considered as occupational profiles, though specifically for use in VET (therefore the appearance of these countries in different clusters in the CEDEFOP report is somewhat surprising). On the other hand, in Ireland VET awards in the national qualifications framework are specified in a way that (where relevant) describes occupational competence. The involvement of social partners in developing these specifications is at least as strong as in the three countries with explicit OS, and representatives of industry contribute their expertise in defining learning outcomes which reflect the abilities needed to be effective in the relevant occupations.

In summary, of the six partnership countries there are three (Germany, Ireland and Austria) where 'competence' in VET is generally expressed as part of a qualification or training specification, and three (UK, Poland and Greece) where it is occupationally-oriented and specified through separate standards. As has been noted, systems are not entirely uniform so for instance in the UK both VET qualifications and apprenticeship programmes can now be specified without reference to OS, while in the UK, Ireland and to a lesser extent Germany standards of competence have been developed in some occupations and professions outside of the national VET systems.

4.2. Methodologies for developing descriptions of competence

In the three countries where separate occupational/professional standards exist at a national level, there are both similarities and differences in terms of the official methodology for developing

the standards. The UK occupational standards (NOS) are officially based on processes of occupational and functional analysis, drawing loosely on the Mansfield-Mathews job competence model. This approach is characterised as occupational rather than educational in focus; external and functional in approach; and based on bounded occupational roles**.** Functional analysis has been criticised as leading to overly detailed, functional or task-based descriptions of competence, and while it is (as at the end of 2015) still the officially-promoted methodology, some recent standards development exercises have used it more in principle than practice. While research is carried out into the overall nature of the occupation and its position in the labour market, the way that occupational roles and tasks are represented is generally left to an expert group subject to the draft standards being consulted on before they are finalised. Professional bodies, outside the VET system, are much more variable in the methodologies they use, ranging from having expert committees draw up unresearched lists of tasks or attributes, through to in-depth research into what practitioners do using techniques such as role mapping and progressively-focussed interviews.

Methodologies in Poland and Greece are based on the same Mansfield-Schmidt task/functional approach and Delphi technique, and use quite similar procedures for the development of professional standards and profiles, including using interviews with practitioners and their managers. The Polish and the Greek approach have both internal and external components within a bounded-occupation framework.

In Austria, Germany and Ireland, while there are quite strict procedures in terms of involving stakeholders and consulting on qualification or programme content, there are no standardised methodologies for development in the sense of being required to use occupational analysis, role mapping, or functional or task analysis.

In none of the partner countries was there evidence of any habitual use of methods such as critical incident analysis, behavioural event interviewing or repertory grid technique that are associated with capturing the attributes of effective job performers.

4.3. Stakeholder involvement

Involvement of stakeholders (i.e. from the labour market) in defining occupational or qualification standards is seen as one of the crucial elements to ensure the relevance of qualification standards to the needs of employers and other users. Two main dimensions of stakeholder involvement can be mentioned: the degree of institutionalisation and the power granted to stakeholders in the process of standards development.

Participation of stakeholders in developing standards is institutionalised even in countries with weak traditions of social partnership, and at least some attention is given to involving both employers and employees. Patterns of involvement may differ greatly depending on national contexts and traditions. In almost all EU and accession countries the involvement of stakeholders is required by the relevant law or procedures relating to the VET sector; in higher education (including vocational and professional higher education) it is more variable and may be at the discretion of individual institutions. Similarly, in the self-governing professions characteristic of Ireland and the UK, decisions on which stakeholders to involve and to what extent are at the discretion of the individual professional body.

Variations are apparent in the power granted to stakeholders regarding occupational and educational standards, as well as the selection of participants for the process. Several countries (including Austria, Poland, and Greece) grant stakeholders an advisory role, though a trend towards

decision-making powers is noted across Europe, e.g. in Poland in the process of reorganising its national qualification system. Differences exist among the countries also in the degree of balance of decision-making between employers and employees. The United Kingdom and Ireland provide good examples of strong stakeholder involvement, but generally with the balance towards industry rather than employment interests; in the UK in particular, the influence of labour unions has been declining generally in most sectors, and this has been reflected in their limited involvement in occupational standards development. In some sectors in both countries professional bodies play an influential role in developing VET standards, in addition to their role outside the VET system in setting professional standards and in some cases approving university courses.

The development of professional standards in the UK and Ireland is in some respects a matter of 'private ordering', where self-regulating professional bodies set standards in consultation with their members and to an extent relevant employers and client bodies or user representatives. This is supplemented to a degree by state oversight in some sectors (notably medicine/health and the legal sector) and the presence of Royal Charters in many British professions, which at least in theory places a duty on them to act in accordance with the public interest.

The *Berufsbilder* in Germany are the result of a regulated process in which the Länder and federal governments, employers, unions and the VET research agency are involved. Employers and employees participate equally in the process of definition and renewal of qualifications, with a decision-making role; they develop the qualification structure, the assessment standards and the standards applying to workplace training in cooperation with the Federal Institute for Vocational Education and Training (BiBB), which coordinates the project and carries out research projects to support their work.

At least among the partner countries, there is no correlation between the presence of separate occupational standards and the degree of involvement of stakeholders; Germany for instance is arguably the country with the strongest stakeholder involvement, while in the UK despite its history of occupational standards bodies (and before them industry training boards) the actual level of stakeholder engagement varies widely from sector to sector.

4.4. Uses of separate occupational/professional standards

A common role of occupational standards is creating a link between employment requirements and education, particularly in VET systems such as those of the UK that are not well-integrated with the labour market. Standards are generally expected to aid in keeping qualifications up to date and relevant to the needs of the labour market, as discussed in section 2.3.

In the UK, the most widespread use of National Occupational Standards (NOS) is to underpin qualifications in the VET system. National Vocational Qualifications were based directly on NOS, while some other vocational qualifications draw on them to a greater or lesser extent. Occasionally NOS are used or adapted for licensing purposes particularly at the lower EQF levels or in the absence of professional bodies that grant qualified status. In principle NOS can be used for various other purposes including self-assessment, as development frameworks, to develop job specifications, etc., but their use in this way varies widely between sectors and must be regarded as secondary.

The largest single use of UK and Irish professional standards frameworks is for assessment for granting qualified status. They are also used for other purposes including informing the objectives of educational programmes, tracking trainees' progress, acting as a tool to aid self-development, and as

a general guide to good practice. They can also be used in cases of malpractice to supplement the profession's code of ethics or practice, particularly where there is an accusation of incompetence.

In Poland, professional competence standards do not carry any legal status and are issued by the Ministry of Labour and Social Policy as a resource to be used by interested bodies. Up to now they are used mainly by employment agencies and by companies as an instrument for human resource management. It is planned for them to have a much wider use, e.g. to link them to the career counselling system (in schools and the labour market), use them for informing educational curricula and examination requirements, and to develop the content of qualifications (an Act enabling this was approved in December 2015)[16].

In the case of occupational profiles in Greece the main use is the accreditation of VET programmes. In principle, each VET programme (up to EQF level 4) submitted for accreditation to the competent authority has to correspond to one of the 202 accredited occupational profiles. Apart from that, they have been used in negotiating collective agreements and for licensing in specific occupations and trades.

It is notable that while Greece and Poland are moving towards a system of vocational qualifications based on or informed by occupational standards, in the UK the requirement to use NOS to inform the content of vocational qualifications was removed soon after revision of the national VET qualifications framework in 2008, followed by a different system for specifying (much more concise) apprenticeship standards.

4.5.   Feedback from the use of competence standards

Some of the partner countries have accrued substantial feedback on the systems of competence standards that they use, while in others the integration of the 'competence' concept in the VET system has meant that there is little comment on it directly.

In the UK, the rigid, highly detailed and often obtuse nature of early NOS led to substantial scepticism about the idea of 'occupational competence', including its rejection by many academic institutions; responses from employers varied from the highly enthusiastic through to seeing it as too narrow or irrelevant. More recent assessments of NVQs indicated that while the qualifications introduced some innovations – particularly allowing existing workers to gain certification in the workplace – they were too narrow to support high-quality initial VET[17]. A gradual response has been to remove the emphasis on NVQs and NOS, improve the quality of NOS as they have become revised, and use alternative approaches for specifying vocational qualifications and apprenticeships. Currently, some sectors (e.g. construction, hospitality and social care) continue to support NOS-based qualifications, while in others it is likely that a lack of interest in NOS will lead to them gradually disappearing. Alongside this, a more holistic concept of competence (or capability) has emerged in some professions and seems well-received, including in academic institutions; one factor in this has been that the relevant standards have been developed from within the profession to meet purposes that it has identified.

As far as the Greek occupational standards are concerned, feedback suggests that they haven't found their 'place' in the labour market and VET system. The OPs have been developed mainly to improve VET programmes; however that objective has not been achieved due both to

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[16] Symela (2014)

[17] e.g. Brockmann *et al* (2011), Allais *et al (*2014)

weaknesses in the standards and to the overall institutional framework failing to support the desired improvements. So far, they have remained static and have not become established as a useful and practical tool, other than in some instances for occupational licensing. Recent developments in lifelong learning policy and in relation to the national qualifications framework suggest that there is a need to enable revision of OPs and broaden their overall scope.

So far no formal feedback has been available from users of professional competence standards in Poland, because no studies concerning their use and effectiveness have been conducted. Thanks to significantly simplified structure in comparison to the older generation of the Polish standards (now it is about 15 pages), they seem to be more user-friendly for various groups, particularly employers. Work on the professional competence standards correspond with the broader strategic measures conducted in Poland for the benefit of the development of an integrated system of qualifications (National Qualifications System – NQS). As the Act on the Integrated System of Professional Qualifications - National Qualifications System was approved by the Polish Parliament in 2015, the implementation works will be started soon. Although the professional competence standards are not an obligatory document in Poland (they are recommended by MPiPS), it seems that they will slowly become a joint platform of exchange of expectations of employers, employees and labour market institutions. Conclusions of the consortium completing the latest project of development of the professional competence standards (finished in 2012) show that in the future works on standard designing should be initiated by social partners: associations and trade unions, organisations of employers and other entities interested in the development of professional qualifications.

In Germany and Austria, the *Berufsbilder* and the standards within them are on the whole seen as relevant and robust, underpinning both countries' strong VET systems. There is some debate in Austria around the extent to which learning outcomes in the off-job part of the VET system link to practical requirements in the labour market, while in Germany some concerns have arisen about the potential of the qualifications framework to promote a notion of competence that is detached from vocational programmes, which it is feared may lead to modularisation and a tendency to undermine the quality and depth of initial VET. On the other hand, there is evidence in some areas of a need for more responsive VET programmes and of the ability to recognise competence gained outside the formal VET system, hence a growing interest in stand-alone competence frameworks.

5. Conclusions and implications

This final chapter outlines some general conclusions from the study, and discusses key implications and opportunities for the project ComProCom.

5.1. General conclusions

The six ComProCom partner countries illustrate different conceptions of and approaches to 'competence'. **Conceptually**, the German and Austrian models are the more holistic and integrated, seeing competence as a set of relevant and wide-ranging capacities that are applied to produce competent action. This reflects both internal and external aspects of competence, and of any of the models used in partner countries' VET systems comes closest to taking a centre-outwards perspective. In this respect they share some features with conceptions used by British and Irish professions, and with the notion of capability that has been used in some UK universities in preference to competence[18]. At the opposite end of the scale, the UK occupational standards model is principally external and functional in approach and reflects a bounded-occupation conception, generally producing a narrower focus on functions and tasks. The Greek and Polish conceptions are closer to the British one, though combining internal and external dimensions; the Polish model as reflected in its most recent form is beginning to embody a more holistic conception of competence.

Operationally, partner countries' dominant approaches to describing competence can be quickly divided into those that use a separate framework of occupational standards (Poland, Greece and the UK) and those where occupational competence is integrated directly into educational standards and curricula (Ireland, Austria and Germany). Of the latter countries, Germany and Austria reflect an approach based principally in programmes and curricula, while in Ireland articulation is through a co-ordinated system of qualifications linked to a unitary national framework. Of the countries with occupational standards, Poland currently has a more open, advisory and partial system, while the Greek system is relatively rigid, aims to be universal below higher education level, and is linked directly to the accreditation of VET programmes. In some respects this parallels the original aims of the NVQ system in Britain. UK occupational standards, having at one time had a similar status to Greek occupational profiles are now becoming largely advisory in nature as a resource for qualification developers and other users.

No specific evidence could be found to support a preference either for having separate occupational standards, or developing programmes and qualifications directly. The British experience suggests that while occupational standards can drive a degree of flexibility and innovation (and have specific applications such as recognising existing abilities and assessment for licensing), they can also take up a large amount of time and expense to develop and maintain, and can encourage a somewhat fragmented and superficial approach to initial VET ('training for a job' rather than preparation for a career). Direct development appears to provide strong, co-ordinated routes into occupations, but depending on how agile the development mechanisms are it may lack flexibility to cope with emerging and hybrid occupations and with the needs of mature workers and career-changers. Occupational standards on the other hand provide a ready resource for unitised accreditation and direct assessment, although they are not essential for this purpose and do not need to lead to it. Direct development might therefore be suggested as a preferable strategy for

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[18] see Stephenson and Yorke (1998)

initial VET, and occupational standards for certification and development of the existing workforce; although there are important aspects of even work-related lifelong learning that will be outside the scope of predefined standards[19]. As has been noted previously, both approaches can be equally successful at engaging stakeholders from the labour market and communicating employment needs to the education system; tentatively, in many sectors engagement may be more positive for developing programmes and qualifications than for the more abstract occupational standards.

In examining the appropriateness of different approaches, two further matters might be considered. One is the problem of creating a bounded-occupation model that actually captures what is needed in the labour market. There is some evidence that occupational classifications, whether ISCO-based or nationally devised, reflect some occupations more accurately than others; while they may be usable for initial VET (subject to a certain amount of agility to reflect emerging and evolving occupations), they can be blunt instruments for describing the jobs that people actually do and the career-paths they follow, reducing their value in relation to post-initial VET and lifelong learning[20]. In this context a bounded-occupation approach can work in principle through allowing a 'pick and mix' approach to individual components or modules, but in practice it is difficult to make viable because of the different emphasis and level of detail that different occupations will need from different components.

The second matter is how the way that competence is operationalised fits with the overall VET and labour market context. Some commentators have observed that the 'feedback loop' model presented in section 2.3 assumes an open rather than co-ordinated VET system, and a liberal market economy (such as the UK's) rather than a more co-ordinated one (such as Germany's)[21]. While in practice different aspects of both the labour market and the VET system vary within countries, this points to occupational standards *as a national strategy* being principally a tool for influencing VET provision in open/liberal, Anglo-Australian-type systems – suggesting that they will be less relevant to Germany or Austria, and need to be approached with caution in the remaining partner countries. Allais *et al* (2014) comment that the self-contained nature of the Anglophone occupational standards model has made it an easy subject for 'policy borrowing', often without sufficient attention to the context into which the policy is being transferred.

Finally, reference needs to be made to the different set of approaches offered by self-governing professions. This is principally a factor in the UK and Ireland, but as models they are relevant particularly to developments outside of mainstream VET in all the partner countries. Professions typically provide a co-ordinated model where the professional body is responsible for approving VET or higher education courses, and setting standards of practice which in some cases are used for assessment to grant qualified status or the licence to practise. A more sophisticated approach to competence – or capability – has appeared in many professions over the last decade or so, based on a concise, centre-outwards model that aims to reflect the activities and abilities needed to function effectively in the profession, regardless of specific role. Compared with VET-based occupational standards, there is less distance and separation between developers and users of the standards, with the professional body typically being responsible for development, implementation and oversight of assessment.

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[19] e.g. Lester 2015b
[20] Allais *et al* (2014), Deißinger (2012)
[21] Hanf and Rein (2007), Allais *et al* (2014)

5.2. Implications and opportunities for ComProCom

The project ComProCom has adopted four conceptual principles that are partly based on approaches used by professional bodies rather than national VET systems. These are:

1) A 'professional' perspective, rather than an educational or organisational one. This means that it is concerned with what is needed to act effectively in a profession or occupation (or a broad area of work relevant to more than one occupation), rather than initially at least with course outcomes, qualifications, or the skills, attributes and behaviours valued by individual organisations.

2) An initially 'external' view of competence. This is concerned with competence as the ability to do something effectively, rather than directly with the knowledge, skills or other attributes of the competent person.

3) A 'centre-outwards' or 'core capability' focus, rather than one that describes a bounded occupational role. It considers what is central to acting effectively in a profession, occupation or area of work as opposed to trying to identify the detail that is applicable to each specific work role. As it focuses on principles and standards rather than tasks and processes, it is fairly resilient over time.

4) A 'universal' view of the profession, occupation or area of activity. This means that framework standards are written so that they apply across all relevant contexts and specialisms, rather than having a 'core and specialist' structure.

This approach differs to a greater or lesser extent from that used in any of the partner countries' VET systems, and suggests that in applying, testing and disseminating this approach the partners will need to both take account of and challenge existing systems. In particular, the project can be seen as supporting both occupational standards and direct development approaches; although it is developing and trialling competence frameworks rather than qualifications or programmes, there is no reason why the principles cannot be used to develop curricula or qualifications directly. While initially the main output from the project is likely to be what might be termed a 'non-standard' model in each country, there are various opportunities for providing feedback into national VET systems. Particular opportunities relating to individual countries include:

- *Poland*   In particular movement from a bounded-occupation to a centre-outwards approach as professional standards are extended. It is expected that by basing standards on principles and standards rather than more detailed task-related content, they will stay relevant and valid much longer than those developed according to the approach using in Poland up to now.

- *Greece* The project can be of considerable interest for the National Organisation for the Certification of Qualifications and Vocational Guidance (EOPPEP). As occupational profiles have not been developed at higher levels yet, the project will provide a way of doing this without challenging the traditional professions entered through higher education. The project framework will also offer a more concise way of describing occupations than in the current set of occupational profiles.

- *Germany* The project will offer an approach to developing stand-alone competence or practising standards where there is interest in doing so, but in a way that avoids losing the

holistic approach to competence that has been characteristic of the German model. There is likely to be synergy between the project and research being carried out by the federal VET research agency, BIBB.

- *Austria, Ireland* The project approach may offer a research-based method for informing the practical content of VET qualifications and programmes.

- *UK* While the UK is not developing or trialling a specific framework, the project will provide international feedback on (and help refine) the approach used by some professions, as well as offering an alternative, more research-based approach to standards and content development at a point when the VET system is moving away from the use of functional standards.

In addition, the project follows the principle of developing external descriptions of core activities before considering the knowledge and skills needed to be effective in them. This is already done to an extent in most of the partner countries, but the way that knowledge in particular is related to activities can be unstructured and fragmented, sometimes with little evidence of a knowledge-structure that includes principles underpinning the whole field. This point is also highly relevant to transnational projects and other developments where a 'knowledge, skills and competence' format is used.

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