ComProCom: a revised model of occupational competence

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Abstract

The use of competence descriptions that are essentially standards of practice has been made familiar through British occupational standards and their variants. However, these standards have been criticised for their narrowness and their location in a particular type of labour market and approach to vocational education. A recently-concluded Erasmus+ project with partners from six European countries has developed an alternative approach, based on that used by some British and Irish professions, that is broader in scope and can be applied to whole professional or occupational fields rather than to individual occupations and job roles. This model is briefly described, and its application discussed in relation to two emerging fields, as well as to current national systems of competence standards. Benefits of the model include its ability to convey the essential work of a field concisely without making assumptions about roles and contexts, and its ability to inform education, training and accreditation independently of the way that labour markets or education systems are organised.

Introduction

Over the last two to three decades, competence standards and frameworks have become widely-used tools in European vocational education and training (VET) systems as well as in some industry sectors and professions. Matters such as what constitutes 'competence', how it might be expressed, and its relationship to curricula, training programmes and qualifications are however far from being agreed (e.g. Mulder *et al,* 2007; Winterton, 2009; Le Deist and Tutlys, 2012; Religa and Lester, 2016). Within the European Union both CEDEFOP and the European Training Foundation have in the past promoted a British-influenced model of competence standards, separated from educational or training curricula (see Mansfield and Schmidt, 2001 and CEDEFOP, 2009), as a means of communicating industry needs into VET; while a different (and conceptually inconsistent) interpretation is evident in the European Qualifications Framework (EQF) (Lester, 2015a). On the other hand pre-existing traditions, generally more closely integrated into VET or professional formation systems, are present in several countries as exemplified by Germany and France (Le Deist and Winterton, 2005). Nevertheless, although there is evidence of poorly thought-through policy borrowing from the British model at a systems level (Allais *et al,* 2014; Lester and Religa, 2017), the articulation of competence or practising standards independently of education and training specifications has proved useful for various purposes in some professions and industry sectors; this is apparent even in countries such as Germany and Austria that have robust traditions of involving industry and social partners directly in the design of VET programmes.

The British functional model is perhaps the best-known and internationally most influential example of what has been called an 'external' or activity-based approach to competence, in which the latter is described in terms of the ability to meet social expectations (such as work standards) rather than as

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attributes of the person such as knowledge, skills, capabilities, or attitudes (Mansfield, 1989; Eraut, 1998). However, it has been criticised in the context of VET as leading to curricula that are too narrowly focused on preparation for specific jobs (e.g. Wolf, 2011; Brockmann *et al*, 2011), as well as being too context-limited and rigid to capture the nature of (particularly higher-level) work adequately (e.g. Hodkinson, 1995; Lester, forthcoming). Its official support in the UK has declined steadily over the last decade to the point where it has now been largely sidelined for informing the content of VET qualifications and programmes. Alternative external approaches to competence have evolved in self-governing professions, the best of which are more holistic, less focused on specific roles, considerably more concise, and cognisant of the intellectual and less tangible aspects of practice; although these have evolved separately to meet the needs of individual professions, they share some common features and taken together they can be regarded as a second-generation British model (Lester, 2015b).

In 2015 an Erasmus+ project, ComProCom (Communicating Professional Competence), was initiated to trial an approach based on this model in different higher-level fields (nominally EQF 5+), with one exception not generally involving initial careers or gaining formally qualified status, and in countries with different ways of organising professions and different VET traditions. The purpose of this paper is to report, at the close of the project, on the emerging and potential effects of introducing competence models of this type in the specific contexts of the project, and to draw out some general points about competence descriptions in sectoral and national contexts. After an outline of the project and each of the five applications, two aspects – emerging fields and national competence standards – are explored in depth drawing principally on two of the applications.

ComProCom: Communicating Professional Competence

The project ComProCom ran from September 2015 to August 2017, and involved partners from five countries who were involved in developing competence standards each in a different field, plus a sixth acting as 'scientific co-ordinator' or methodological expert. Its early stages included knowledge transfer, agreement of the approach to be taken, and desk research (summarised in Religa and Lester, 2016 and Lester and Religa, 2017) into the way professional or occupational competence was articulated in each of the partner countries. Each partner then developed a competence framework or set of standards in conjunction with industry experts, followed by consultation and trialling with the relevant practitioner community and associated stakeholders. Frameworks were finalised in the early part of 2017. Throughout the process, partners also engaged as relevant with stakeholders in their industry sectors or professional fields as well as their national VET or higher education systems as appropriate. A number of other outputs were also produced including a methodological guide, articles, web-based resources, and a training course for developers of competence standards. In common with other Erasmus+ projects, the project outputs will be taken forward commercially or *pro bono* by the partners, while also being available in the public domain.

ComProCom used an external or activity-based approach to competence as described in the Introduction. Rather than working at the level of occupational roles and functions as has been largely the case in British occupational standards and in the related approach (Mansfield and Schmidt, 2001) promoted by the European Training Foundation, in principle it aimed to develop standards at the level of overall professional or occupational fields. A number of additional guiding principles were adopted in the project, as follows:

- The use of a 'centre-outwards' as opposed to 'bounded-occupation' approach (Lester, 2014). This essentially means starting from the purpose, ethos and core activities associated with the field as a whole, rather than from attempting to define discrete occupational roles within it.

- A unitary or universal approach, in the sense of standards being written to apply to all practitioners within the scope of the field regardless of roles, specialisms and practising contexts. This contrasts for instance with developing a mixture of core and role- or specialism-specific standards and creating a set of rules for how they can be combined.

- A recommended structure based on (1) the central activities associated with the field, in the form of either a project cycle or a small number of high-level themes; (2) transversal activities, such as work management, relationship management and ongoing development; and (3) underpinning professional or business ethics.

- Precise but concise presentation, with three levels of depth (main headings, key activities, and critical factors and/or explanations), an expectation of no more than a dozen pages or so to describe practice across the entire field, and the use of easily-understood, active language.

Further detail is provided in the project methodological guide (Lester, 2017) and final report (Lester *et al*, 2017).

The expectations of the project in terms of immediate impact on national or European systems were relatively modest. A realistic aim was to offer a simple and conceptually robust definition of 'competence' (the definition adopted in the project, from the Oxford English Dictionary, is 'the ability to do something successfully or efficiently'), backed by a model and development methodology that would enable this to be articulated in a way that could underpin or complement a range of different approaches to VET, professional formation and licensing or accreditation. Longer-term, this might be seen as both an alternative to more role-specific approaches to describing competence, and a pragmatic tool with Europe-wide application.

The application of the model by each of the project partners is outlined below, followed by a more detailed discussion of two aspects drawing principally on the Greek and Polish cases. These are of particular interest because they both focus on fields that are of increasing importance nationally and internationally, but, as activities that are generally entered after gaining experience in a primary occupation, that are largely lacking formal definition as occupations or professions. The frameworks are also located in national contexts where systems of occupational standards have been introduced with varying degrees of success; in both cases these are loosely based on the older British approach as modified via the Mansfield-Schmidt model.

Germany: chemical engineering
Chemical engineering is a regulated occupation (*Beruf*) within the German VET system, with dual-study apprenticeship programmes for school leavers, higher-level qualifications geared to career progression, and university degrees. The German partner, a major provider of practical training in the dual system, includes among its programmes preparation for the level 6 *Industriemeister* qualification, a prerequisite for operational managers in chemical plants that is generally taken by workers who

have already qualified as technicians in the industry. While the formal content of the examination is controlled by national regulations, the preparatory curriculum is (unlike at the lower levels of the VET system) the responsibility of the provider organisations. The partner decided to use the framework development process to identify how well its curriculum met industry requirements, as well as for learning within the institution itself. A finding that will feed back into the course programme is the need, particularly among larger employers, for greater consideration of the effects of new technologies on production processes and the roles of operational managers.

Ireland: training and development

The Irish partner, the professional institute for training and development practitioners, was in the process of initiating work to develop a profession-wide development framework to aid processes such as ongoing professional development, career development, performance management, and talent management and succession planning. It saw involvement in the project as a means to engage with an alternative methodology and use the results to underpin its developments as and where appropriate. The main benefit identified from ComProCom was that its emphasis on practising standards at the level of the overall field aided a focus on the profession as a whole, rather than on distinct roles, and second on the needs of practice rather than (as might be expected in the field of training) on the skills, knowledge and behaviours of individuals. However, it is likely that the main user-facing product will be an adaptation or extension of this that is more geared to individual development.

Austria: business administration for start-ups

The Austrian partner, a consultancy and commercial training provider, developed a framework to assist start-up entrepreneurs to manage their businesses geared particularly to the important and growing high-tech sector. Business start-up or small business management is currently not included as a specific area of Austrian VET provision, and the company saw the area as a gap in the market that it may be able to exploit. The development process enabled it to engage with practitioners in this field and produce a framework geared to the needs of entrepreneurs involved in the first five years or so of business development. A decision is currently pending on whether to take the developments forward into commercial provision.

Greece: management of social co-operative enterprises

Following the financial crisis in Greece, social entrepreneurship has had a raised political profile partly as a perceived way of supporting the creation of new businesses and reducing unemployment. There is however no specific educational pathway and only limited training in this field, and the Greek system of occupational profiles, which in any case only extends to EQF level 4, does not include the management of social enterprises. The Greek partner, a state agency that supports local authorities, identified social entrepreneurship as an area needing greater research and improved support. This area is discussed in more depth in the next sections of the paper.

Poland: innovation management

The Polish partner, a national research institute, engaged in the project with a dual purpose relating to its role as a producer of research in the field of sustainable technologies as well as its expertise in continuing education, where it is involved in developing national professional standards under contract to the Ministry of Family, Labour and Social Policy (MPiPS). In relation to the first, it decided to explore standards for the management of innovation, a field that cuts across different occupational

areas in research institutes, industry, and intermediaries, while in its second capacity it was interested to explore whether the approach adopted in the project could add to understanding to inform the development of national standards. Again, this is discussed in more depth in the next sections.

Competence standards in emerging fields: innovation management (Poland) and management of social co-operative enterprises (Greece)

Both innovation management and social entrepreneurship can be considered emerging fields, as while they have longer histories both in the partner countries and elsewhere, they have recently become the subject of significant attention from both an economic viewpoint and that of the need for appropriately skilled personnel.

Innovation management is concerned with bridging between science and the economy, supporting the flow of knowledge from research centres to enterprises and the efficient implementation of new solutions (whether concerned with products, processes, organisation or marketing). It involves among other things enabling the former to exploit their research and inventions, and the latter to access, build upon and commercialise new findings. A significant obstacle to this process is the presence of competency gaps among researchers and inventors who have difficulty commercialising their outputs, as well as among enterprises who struggle to find, finance and commercialise innovations (Gwarda-Gruszczyńska and Czapla, 2011) .

Innovation management is difficult to define as a profession or occupation, as it is typically carried out by people who are already established in various roles in enterprises, in intermediary organisations such as technology transfer centres, business incubators and innovation centres, and in research institutions. In enterprises these may include general managers or heads of strategy, product managers, research and development specialists, marketing specialists, human resources managers, or owner-managers in smaller enterprises. In research and intermediary organisations it can include researchers themselves, educators, consultants, and specialists in commercialisation, marketing and business development. Innovation management has some of the characteristics of a nascent profession that is creating its space between adjacent fields (cf. Abbott, 1988), but it is perhaps better thought of as an interdisciplinary field that will increasingly impinge on the activities of people in different fields and roles. These factors make it difficult to assess, without carrying out extensive primary research, how many people have significant involvement in innovation management. An order-of-magnitude estimate can be made by reference to the number of innovation and entrepreneurship centres of various kinds in Poland (around 800 according to the Polish Business and Innovation Centres Association), and larger enterprises (over 250 employees), likely to be those with some form of innovation management role, of which there are approximately 3000. This suggests that overall there are several thousand organisations and a minimum of perhaps 10,000 individuals requiring innovation management competence of some form.

As will be discussed in the next section, Polish occupational classifications and professional standards focus on occupational roles; some of these are relevant to innovation management (e.g. 'Specialist in the commercialisation of technologies'; 'Specialist in market analysis and development'; 'Product manager'), but none cover the full field. The 'centre-outwards' approach provided by ComProCom enables innovation management to be considered as an holistic field with a central purpose and ethos, rather than through trying to construct a role such as 'innovation manager'. This

approach therefore proved attractive for developing a description of the entire field, which was carried out using the project methodology described in the introduction (and see Religa, 2017). Feedback indicates that the resultant framework has provided a good representation of the field, it adapts easily to the purposes of self-assessment and identifying development needs, and it can be considered the first successful attempt in Poland to produce a set of standards for a broad, interdisciplinary field. Some issues were also highlighted, including a preference for more concrete and detailed descriptions of activities and functions by the commercial sector, and the fact that any particular occupational role would not be likely to encompass all the standards. There may be a small amount of further work that can be done to make the detail of the standards less context-specific, while it may also be beneficial to develop a number of subset standards from the base model for use in, for instance, institutional, intermediary, and commercial contexts. The partner organisation is currently using the framework to aid development of its own staff, and will subsequently review it for wider use.

The choice of management of social co-operative enterprises as the subject for the development of a competence framework in Greece was made on the basis that although social entrepreneurship has been a policy priority for the last six years, the relevant competence profile still remains unexplored (Koniotaki, 2017). Furthermore, despite large-scale programmes to promote social entrepreneurship that took place in 2013-2015, a large number of social enterprises are facing severe viability problems that to a greater or lesser extent have to do with the lack of basic knowledge, skills and experience related to management and entrepreneurship.

The main findings in relation to managing social co-operative enterprises is that it is a highly demanding role that goes beyond the typical requirements of business management. Matters such as social and environmental concerns and participative leadership are priority issues for social enterprises. Taking also in account that most social enterprises in Greece are, in common with other businesses, micro-enterprises with less than ten employees, the managerial abilities required must cover the specific needs of managing a micro-enterprise along with those relating to the social co-operative sector. The research conducted to inform the framework's development therefore revealed that management of a social enterprise requires a combination of knowledge and skills that are significantly differentiated from those needed for the management of any other type of private enterprise. This takes issue with current state policies that target socially vulnerable groups as potential social entrepreneurs, despite the vast majority lacking the relevant knowledge and skills. Thus, the framework challenges dominant perceptions about the prerequisites for a successful outcome to a social entrepreneurial endeavour.

The development methodology for the framework provided the opportunity for an open and highly vivid dialogue among actors in the social entrepreneurial community, who used their experiences to develop a final version that has received universally positive feedback from the stakeholders to whom it has been presented. Trialling the framework revealed a consistent pattern of training and support needs among practitioners, indicating that it can serve as the basis of a systematic approach for identifying training needs as well as setting out the relevant role requirements. To conclude, the situation so far indicates that the framework is broadly endorsed by Greek social entrepreneurs and can contribute to the formulation of policies of the Ministry of Labour (Directorate for Social Economy), the competent authority for social entrepreneurship, and the National Organisation for Qualifications (EOPPEP), responsible for occupational profiles.

In both fields, the development of competence or practising standards has improved the definition of the field, highlighted it as an area of activity relevant for policy, training and continuing development, and in the case of the former emphasised the high level of competence needed. Arguably, the type of descriptions that were produced is less important for this purpose than the fact that a credible body in each of the two fields has created a coherent set of standards and consulted on and tested them with practitioners and other stakeholders. However, in both cases two factors in the design of the standards have been relevant in achieving this aim. The first is that they take the form of standards of practice, i.e. describing what it is that practitioners need to be able to do, rather than for instance skills, sets of behaviours or a body of propositional knowledge. Descriptions of these latter may be useful or necessary for various purposes, but having a validated description of *practice* both provides a stronger starting-point for developing them than would for instance studying the attributes and knowledge-bases of existing practitioners in the absence of a strong conceptualisation of what they need to be able to do. It also provides a direct means of communicating the work of the field both in summary and in sufficient detail for operational purposes. The second factor, relevant particularly to innovation management, is the centre-outwards orientation, which avoids attempting to define the fields by reference to distinct occupational roles. In the respective fields a minority of people involved might be described as professional innovation managers and perhaps a greater proportion as managers of social enterprises, but neither field is a primary occupation that would be supported by a formal VET or professional formation programme, nor a legally-protected profession that needs to have precise descriptions of functions that are reserved to it.

Engaging with national competence frameworks

As discussed in previous papers (Religa and Lester, 2016; Lester and Religa, 2017), only three of the six project countries – Greece, Poland and the United Kingdom – had systems of occupational competence standards separate from VET curricula or qualification specifications. The particular case of the United Kingdom and the declining role of national occupational standards has been discussed briefly in the Introduction. In Greece and Poland, models have been adopted that reflect some elements of the British approach as modified via the Mansfield-Schmidt model (Mansfield and Schmidt 2001); these have been articulated somewhat differently in each of the two countries, and have met with different reactions.

In Greece, the state rather than the labour market first triggered the discussion about the need for occupational standards, initially in 2000. In the period 2008–2010, with funding from the then Community Support Framework, 202 sets of standards (*επαγγελματικά περιγράμματα* or occupational profiles, OPs) were developed relating to occupations at EQF level 4 and below. These were based on a common methodology and structure, with elements of both an external approach (occupational description and key tasks) and an internal one (knowledge, skills, and personal competencies). In that context the procedure for the development of OPs has been a one-off co-funded project rather than an ongoing process.

The development of OPs in Greece was related to the formulation of national lifelong learning policy that took place from 2003 to 2010. The institutional framework that governs the development and accreditation of OPs in Greece is the Common Ministerial Decision 110998/8.5.2006 *Accreditation of Occupational Profiles*, which states that the "objective of the development and accreditation of occupational profiles is the systematic analysis and reporting of the content of the occupations, as

well as the analysis and reporting of the paths for the acquisition of the necessary competences". Based on that definition, the content of OPs focused on three areas, i.e. the content of the occupation, the competencies required, and the education and training paths for the acquisition of those competencies.

OPs have been mainly used for the accreditation of VET programmes, where programmes submitted to the competent authority (EOPPEP) have to correspond to one of the accredited OPs, and for licensing procedures for a number of technical occupations, where they have provided threshold standards in the form of necessary knowledge and skills expected to be applied in practice. However, OPs haven't been widely accepted in the labour market or VET system. They have remained static, as an institutional requirement for the accreditation of VET programmes or for underpinning professional accreditation and licensing, and they have failed to become established as a useful and practical tool for the labour market. Since the development of the first set of OPs there has not been any further development. Furthermore, OPs have received criticism about their quality, their need for updating, their structure, and the length and over-detailed nature of their content (on average they take up around 100 pages of text). While OPs were developed mainly to improve VET programmes, that objective has not been achieved due both to weaknesses in the OPs themselves and also to the overall institutional framework failing to support such improvements. More recent developments that have taken place in the lifelong learning policy area and in relation to national and European qualification frameworks point to a need for revisiting the purpose of OPs and the methodology behind them. The principles used in ComProCom have attracted some interest from EOPPEP, but whether they can inform a revised approach to OPs is a matter for policymakers.

In Poland, a broadly analogous approach has been used since the late 1990s, also based loosely on the Mansfield-Schmidt model. The current version of this model was introduced in 2012-13, with modifications to make it easier to map to the European Qualifications Framework and in principle easier to use as a basis for designing qualifications. The basic structure identifies a small number of key tasks for the occupation, and maps them to major 'competences', described in terms of knowledge and skills, as well as to a set of personal and social competencies. Substantial additional information is included such as the definition of the occupation, the contexts in which it takes place, educational requirements, development prospects, and any relevant health or psychosocial matters. As described for the Greek model, the Polish one can be considered a hybrid between an external approach and an internal one. It is however considerably more concise in format, with the overall description taking up typically 16 pages, and the competence standard itself comprising around half of that.

Polish occupational or professional standards (*Krajowy standard kompetencji zawodowych*) were an initiative of MPiPS, defined around the Polish labour market classification (KZiS) to reflect the requirements of employers (Bednarczyk *et al*, 2014). The KZiS currently specifies 2,443 occupations (MPiPS, 2014), of which 553 have competence standards including 300 in the new format. Standards have been developed at EQF levels 2 to 7, with half the revised standards being at levels 6 and 7. Typically, each standard covers something closer to an occupational role than an entire field. It can be described as taking a role-level, bounded-occupation approach (Religa and Lester, 2016), though each standard is 'unitary' in the sense of not having different options or specialisms. The standards are advisory, in that there is no compulsion for them to be used in VET. Their use is however being encouraged as a basis for qualifications and VET programmes.

By focusing on innovation management, the project provided an opportunity to test the ComProCom approach while not conflicting with an existing industry standard. Immediate differences included its centre-outwards rather than bounded-occupation starting-point; the breadth of field covered; the focus on practice alone, rather than on knowledge, skills and personal competence in addition; and a more detailed description of practice in a document of similar length. During the project process, some concerns emerged including introducing another approach only a few years after the national professional standards had been reformatted; the lack of linkage with the EQF (the project approach emphasised writing standards to meet practice needs, rather than linking directly to qualification levels); and confusion between descriptions of practice and descriptions of skills. On the other hand, the relatively concise and uncluttered description of practice found favour with practitioners and was also commented on positively by the employment service, one of the main current users of occupational standards.

Simply to adopt the project model at a national level in Poland is at present likely to be too great a step away from the current, established format. However, the Polish partner has recently been commissioned by MPiPS to develop over a thousand professional standards within the national system, and notes the benefits of a centre-outwards rather than bounded-occupation approach and the broader focus on principles, standards and transversal activities rather than tasks and skills. The model is therefore likely to inform the evolution of the current approach rather than to become a replacement or alternative for it.

Contrasting the project model with current national approaches in both Poland and Greece, two immediate differences are apparent. One is that the ComProCom model provides purely a description of activities or practices, not the skills, knowledge or behaviours that underpin them. The second is that in using a field-level, centre-outwards orientation, it avoids trying to define occupations via discrete roles, although it can be applied to fields that are broad or relatively narrow according to need. These characteristics also differ from the approaches used in the remaining project countries, so require further exploration if they are to be considered for use in a national system.

The majority of national competence standards, while they generally include at least an outline description of practice, also extend to at least a description of related knowledge and sometimes also skills, personal competencies or relevant behaviours. In principle this is intended to make them more amenable to use for developing curricula or training programmes, or specifying qualifications. However, simply appending knowledge and skills to practice activities is not generally a good way of developing a curriculum, as it tends to ignore how knowledge builds from general principles to more specific and applied concepts, and how know-how, skills and techniques need to be built into the larger sequences of action that, particularly although not only for higher-level work, are necessary to underpin competent practice (e.g. from different perspectives Eraut, 2004 and Winch, 2014). The fragmentation of knowledge to fit descriptions of practice is particularly deleterious in fields that have a 'vertical' knowledge-structure (Bernstein, 1999), i.e. where a deep understanding of underlying principles is needed in order to make sense of practice and to develop an adequate level of professional judgement.

The second matter concerns how occupational areas are defined. Many national systems use a bounded-occupation approach where the area is defined as a particular work role or set of related

roles that can be described in terms of the functions or tasks involved in them. Areas may be defined according to a standard classification such as ISCO, ESCO[4] or the national equivalent. There is no assumption from this perspective that occupations do not overlap, but the overlaps are normally viewed as sharing functions and therefore competence descriptions. While this approach can be appropriate for some applications, such as where an occupation has clearly-defined legal boundaries, in many it will be too rigid; it is not always good at reflecting how real-world roles map out, how professional careers develop, and how roles change over time and across contexts. In contrast a centre-outwards approach starts from an identifiable professional or transprofessional field, and reflects its ethos and the key areas of practice that its members need to be proficient in. Overlaps, which in a centre-outwards model tend not to be defined functionally, are often characterised by bringing different perspectives to similar applications (e.g. highway development as seen from the perspective of an engineer, a planner and a landscape architect, or functional mobility from the perspective of an osteopath, an occupational therapist and an orthopaedic surgeon). By not attempting to define boundaries or detailed functions, this approach provides greater allowance for developing careers and changing (and unforeseen) contexts.

A question still arises as to how the 'centres' are decided on in centre-outwards descriptions, if not by reference to some form of occupational classification. An answer to this is hinted at in the notion of communities of practice, and demonstrated both by the German system of *Berufe* (Hanf, 2011) and by self-regulating professions in Britain and Ireland. In both cases fields become defined largely organically, typically over many years or even decades of evolution and negotiation between practitioners, employers and state or other stakeholders, even if the culminating process of formalising a *Beruf* (BIBB, 2014) or forming a professional institute (Lester, 2016) is relatively rapid. Particularly in British and Irish professions (which collectively lack any state oversight), although also to an extent in *Berufe*, this leads to a more messy situation than the neat delineations imposed by occupational classifications, with for instance groupings of radically different sizes, significant overlaps, and sometimes subsets and specialist groups within larger fields; it is however usually better reflective of how work is actually organised and makes pragmatic sense from the viewpoint of organising professional or vocational programmes. As demonstrated by the two examples in the previous section, a centre-outwards approach avoids constraining the emergence and recognition of new or hybrid fields, a criticism sometimes levelled at both *Berufe* and self-organising professions as well as occupational classifications. In summary, a move is suggested away from aiming for a systematic and even coverage of occupational activity, as has been attempted in Britain, Poland and Greece, to a situation where standards are developed by communities of practitioners, employers and other interested parties when they are deemed useful.

Conclusion

The project ComProCom has trialled a particular approach to occupational or professional competence, based on external standards of practice that are organised around a centre-outwards view of professional or occupational fields. In addition to its original use for accreditation and licensing, this approach appears to have a good level of validity for applications that include giving better definition to emerging fields (including those that cut across different professions and occupations), and providing a source of evidence to inform education and training programmes.

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[4] https://ec.europa.eu/esco/portal/occupation

Importantly, for the reasons discussed in the previous section, it should not be seen as a replacement for a curriculum or training specification, or as dictating the content of one. Similarly, it does not translate directly into a qualification; the relationship between different sets of standards and individual qualifications will vary depending on the purpose, scope and breadth of coverage of the qualification.

The extent of trialling in ComProCom has necessarily been limited. Further testing is suggested including developing individual frameworks that have international currency, longer-term trialling of the model to underpin VET and continuing development provision, and testing its applicability to occupations where high levels of autonomy and decision-making cannot be assumed.   However, there is enough evidence to suggest that the model, as refined through the project, is able to contribute to achieving greater commonality in the understanding and articulation of occupational or professional competence in Europe.   There are at least three factors that support this, described below.

The first factor is that the model focuses on practice, rather than abilities, behaviours or attributes. On first examination this could be thought to run contrary to what is needed in professional formation and VET systems (cf. Cheetham and Chivers, 2005; Mulder, 2014), but its advantage is in providing a base description of a field of work and leaving open whether and how this is complemented by descriptions of factors that enable practitioners to become competent and act competently. In turn this supports various approaches to curricula, without imposing a specific model of 'competence-based' education or training.

The second is that in starting from a centre-outwards perspective, the model avoids making assumptions about parcelling occupations into categories for which standards are then developed. Although centre-outwards approaches are principally identified with field-level descriptions, there is not a direct relationship between the two and they can be used to support descriptions at different levels of abstraction (for instance lawyers in general, solicitors, patent attorneys). This in turn supports applications that fit with different national and sectoral contexts and priorities, while respecting how communities of practice have evolved and continue to evolve; there are no assumptions for instance that groups cannot overlap without sharing standards, or the presence of one set of standards in a sector (for instance for civil engineers) precludes or prejudices the development of another that overlaps with it from a different perspective (e.g. for surveyors or architects).

The final factor is that the model does not assume any particular type of economy, labour market, or means of organising VET, professional formation, or licensing. This appears particularly important in the light of experience with the British occupational standards model both within Britain itself and via its adoption or adaptation in contrasting labour market and educational contexts. For application in a European context, this offers the potential for a common 'language' of competence to emerge that does not depend on the introduction of any particular type of system, while being able to support policy reforms geared to establishing more open and transparent VET and qualification systems.

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