

## **Mapped Careers Project**

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**Mapped Careers Project**

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## **1. Executive Summary**

This document relates to the Mapped Careers Project which has been completed for the European Commission.

The Mapped Careers Project has two principal objectives. Firstly, the development of a sectoral and occupational framework which encompasses European occupations and training systems. The second is an online searchable database that will allow users to research specific occupations and qualifications available in the countries involved. The database is designed to allow the users to access mapped career progression routes and then link to appropriate awards that lead to these professional outcomes.

These objectives have been achieved for a selection of occupational sectors and countries namely the UK, Denmark and Germany. The resulting mapped careers database has proven to be a useful and informative tool giving comprehensive, clear and valuable information regarding occupations, professions and training in the three EU member states. The flexible format of the database will enable regular updates as well as the inclusion of information on the remaining 22 EU member states. This exercise provides a strong methodology for a more comprehensive mapping exercise which could cover the other EU Member States.

## **2. Methodology / Foundation Principles**

### **2.1 Purpose**

The Mapped Careers Project has been designed to increase transparency in education and learning, thus supporting and facilitating mobility within the European Union. The need to increase transparency of qualifications has been the focus of many pieces of European legislation, in particular the Bologna and Copenhagen Declarations and Lisbon Convention. Furthermore, the shift from education to life-long learning has increased the need for the development of a new instrument supplemented by innovative methodologies, to aid the recognition of qualifications.

There are two main aims to this particular project. The first is the development of a sectoral and occupational framework which encompasses European occupations and training systems. The second is an online searchable database that will allow users to research specific occupations and qualifications available. The database will also allow the users to access mapped career routes and then link to appropriate awards that lead to these professional outcomes, linking learning and the marketplace more closely. Such a database will provide an invaluable tool to increase the transparency of education systems and qualifications to aid mobility for employment, professional development and study.

The resulting project has been made available to all centres within the NARIC network. It will also be available to other interested organisations.

## **2.2 Level Classification**

### **2.2.1 SEDOC Classification**

Each qualification in the database has been benchmarked to a SEDOC level based upon credential evaluation techniques. In some cases it has been necessary to use a “between” statement otherwise the SEDOC framework is not sufficiently expressive to adequately express all the different learning outcomes.

The SEDOC-classification has been chosen based on its widespread use as a reference in most EU member states and acceptance as a cross-national standard by vocational education organisations across Europe. At the core of the SEDOC classification system is a set of reference points defined by occupational outcomes. Level descriptors which describe the occupational outcomes for the SEDOC classification system are provided in Appendix 1.

### **2.2.2 EQF Classification**

The qualifications have also been assigned an EQF level. The proposal for a European Qualifications Framework is a working paper set out in July 2005 by the Council of the European Union for consultation. The proposed EQF is a meta framework consisting of a set of common reference points referring to learning outcomes located on a structure of eight levels enables users to see clearly how qualifications embedded in quite different national and sectoral systems relate to one another. Level descriptors for the EQF Classification system are provided in Appendix 1.

Throughout this methodology qualifications have been referred to according to their EQF level only. This is because the EQF framework is more expressive than SEDOC in terms of the range of learning outcomes and can thus be used more effectively to classify the level of the qualifications compiled in the database.

It is accepted that the levels to which qualifications have been assigned is open to debate and the database has been designed in such a way as to allow an easy updating of any agreed changes.

## 2.3 VET Systems and the Countries Selected

The countries selected reflect differing models of VET and professional training systems. The countries are as follows:

- Denmark
- England, Wales and Northern Ireland
- Germany
- Scotland

The database only includes national qualifications. Professional qualifications have been excluded due to the difficulties in determining the level of the awards. This is explained in further detail in section 3.2.

### 2.3.1 Denmark

The main qualifications and types of qualifications covered in Denmark are included in the following table:

Danish Category	SEDOC Level	EQF Level		
Master (M)	5	7	Candidatus / Master	
Bachelor (B)	Between 4 and 5	6	Bachelor	Professionbachelor / Eksamensbevis (2000-)
Højere Tekniker (H)	4	5	Basisuddannelse: Grunduddannelse / Bifagsexamen / Examen Artium	Korte Videregående Uddannelser (KVU) (Short Cycle HE) / Afgangsbetis / Eksamensbetis (from specialised institutes)
Tekniker (T)	3	3	Studentereksamen	Svendebrev (Journeyman's Certificate) / Højere Handelseksamen (HHX) (Commercial Upper Secondary Education) / Højere Teknisk Eksamen (HTX) (Vocational Upper Secondary Education)
Grundlæggende Tekniker (L)	Between 2 and 3	Between 2 and 3		Pædagogisk Grunduddannelse (PGU) (Educator Assistant)
Grunduddannelse (G)	2	2	Folkeskolens 10	Erhvervsfaglig Grunduddannelse (EFG) (Basic Vocational Education)
Forberedelse (F)	1	1	Folkeskolens 9	

### 2.3.2 England, Wales and Northern Ireland

Qualifications and types of qualifications covered in England, Wales and Northern Ireland are based on those identified in the National Qualifications Framework (NQF) developed by the Qualifications and Curriculum Authority (QCA), provided below:

	<b>SEDOC Level</b>	<b>EQF Level</b>	<b>Academic</b>	<b>Vocational</b>	<b>Occupational</b>
D (Doctoral)	5	8	Doctorates	Vocational diplomas	
M (Masters)	5	7	Master's degree, Postgraduate Certificate (PGCert) and Postgraduate Diploma (PGDip)	Vocational certificates and diplomas	NVQ Level 5
H (Honours)	Between 4 and 5	6	Bachelor degree / Graduate Certificate / Graduate Diploma	Vocational certificates and diplomas	
I (Intermediate)	4	5	Diploma of Higher Education (DipHE)	Foundation degree / Higher National Diploma	NVQ Level 4
C (Certificate)	4	5	Certificate of Higher Education (CertHE)	Vocational certificates and diplomas	
	3	3	A levels	Vocational certificates and diplomas	NVQ Level 3
	2	2	GCSE (Grades A*-C)	Vocational certificates and diplomas	NVQ Level 2
	1	2	GCSE (Grades D-G)	Vocational certificates and diplomas	NVQ Level 1



### 2.3.3 Germany

The main qualifications and types of qualifications covered in Germany are included in the following table:

<b>German Category</b>	<b>SEDOC Level</b>	<b>EQF Level</b>	<b>Academic</b>	<b>Technical</b>	<b>Occupational</b>
Hohere Dienst (H)	5	7	Master		
Gohobene Dienst (GD)	Between 4 and 5	6	Bachelor	Diplom (FH)	Diplom (BA)
Techniker (T)	Between 3 and 4	4	Vordiplom	Fachschulabschluß / Staatlichgeprüfte	Meister
Assistant (A)	Between 2 and 3	Between 2 and 3		BFS (2-5 Years)	IHK / Facharbeitbrief
Dual System (D)	Between 2 and 3	Between 2 and 3			Ausbildung / Dual System
Erste Grundbildung (G)	2	2	Hauptschule / Realschule	BFS (1 year) Berufaufbauschule	
Vorbereitung (V)	1	1	Hauptschule		Berufsvorbereitungsjahr

### 2.3.4 Scotland

Qualifications and types of qualifications covered in Scotland are based on those identified in the Scottish Qualifications Framework (SCQF).

SCQF Level	SEDOC Level	EQF Level	Higher Education	SQA National Units, Courses and Group Awards	SVQ
12	5	8	Doctorate	Vocational Diplomas	
11	5	7	Masters	Vocational Certificates and Diplomas	SVQ 5
10	Between 4 and 5	6	Honours Degree	Vocational Certificates and Diplomas	
8	4	5	Diploma in Higher Education	Higher National Diploma	SVQ 4
7	Between 3 and 4		Certificate in Higher Education/ Higher National Certificate	Advanced Higher Award	
6	3	3		Higher	SVQ 3
5	2	2		Intermediate 2 Certificate Credit Standard Grade	SVQ 2
4	1	1		Intermediate 1 Certificate General Standard Grade	SVQ 1
3	Below Level 1	Below Level 1		Access 3 Foundation Standard Grade	
2	Below Level 1	Below Level 1		Access 2	
1	Below Level 1	Below Level 1		Access 1	

## 2.4 Sectors and Occupations

The database of qualifications and career paths uses a structure based upon vocational sectors into which specific occupations are classified.

### 2.4.1 Current International Classifications

There are a variety of occupational and subject area classifications available, each focusing on a certain factor, such as economic classification or occupation, as follows:

- NACE - Classification of Economic Activities in the European Community: This classification is used for the System of National Accounts (SNA) and concentrates on an economic activity, such as agriculture, mining or retail sale, involving an input of products, a production process and an output of products.
- ISIC - International Standard Industrial Classification of all Economic Activities: This classification was developed by the UN and focuses on grouping enterprises by similar goods, processes or services.
- ICSE - International Classification of Status in Employment: This classification is concerned only with the nature and type of contract under which an individual is employed.
- ISCO – International Standard Classification of Occupations: This classification was initially developed for use by the International Conference of Labour Statisticians in order to facilitate international comparisons of occupational statistics.

These classification systems provide a valuable insight into the types of occupations and occupational areas, developed from a European and international perspective. Their structure often reflects and represents their purpose.

NACE and ISIC are structured by the type of economic activity and relevant sector, further detail is structured by activity, such as forestry, logging and related activities and various areas of mining and manufacture.

ICSE focuses on the nature of employment, such as self-employed or members of producers' co-operatives. The sector and occupational role is not as important in this context.

However ISCO is structured very differently. The classification is designed to consider occupations. This requires an analysis focused on role, rather than sector or employment. ISCO is based on two concepts, Job and Skill. Job relates to a set of tasks and duties executed. Skill relates to the ability to carry out the tasks and duties of a job, and is understood in two dimensions, Skill level and Skill specialisation. The role of the individual in an occupation is therefore of greater importance in the classifications than the sector and as a result the classification is based on types of role, such as professional and technician. The sector, or type of employing organisation, provided in further sub-divisions.

## 2.4.2 Requirements for Mapped Careers

Considering the classifications summarised above the categories used for the mapping of careers must reflect the aim of the work. These categories will be used to reflect occupational roles and their position in a wider career progression pathway. The three important elements are therefore as follows:

- i. Identify a sector within which career progression occurs
- ii. Reflect occupational roles with regard to progression
- iii. Allow qualifications, and therefore skill levels, to be accurately linked to job roles

The structure must therefore be sector based, with generic occupational titles – reflecting a skill level and job role.

## 2.4.3 Sectors

The sectors chosen are those developed by the Qualifications and Curriculum Authority (QCA) for England, Wales and Northern Ireland for the Framework of Sector and Subject Categories FSSC. The classification framework was developed as a result of a working group comprising members from a variety of bodies in the UK, including the UK NARIC (please refer to Appendix 3 for a full list). The framework was developed for a UK context but due to the wide consultative group the categories used in the FSSC are broad and generic in nature. This lends itself to the work for the mapped careers as it is also applicable in a European context and to both professional and lower level occupations.

The first and second tier of the FSSC represent sector and subject distinction, rather than economic activity and role, as follows:

Area	First Tier	Area	Second Tier
1.	Health, Public Services and Care	1.1	Medicine and Dentistry
		1.2	Nursing and Subjects and Vocations Allied to Medicine
		1.3	Health and Social Care
		1.4	Public Services
		1.5	Child Development and Well Being
2.	Science and Mathematics	2.1	Science
		2.2	Mathematics and Statistics
3.	Agriculture, Horticulture and Animal Care	3.1	Agriculture
		3.2	Horticulture and Forestry
		3.3	Animal Care and Veterinary Science
		3.4	Environmental Conservation
4.	Engineering and Manufacturing Technologies	4.1	Engineering
		4.2	Manufacturing Technologies
		4.3	Transportation Operations and Maintenance
5.	Construction, Planning and the Built Environment	5.1	Architecture
		5.2	Building and Construction
		5.3	Urban, Rural and Regional Planning
6.	Information and Communication Technology	6.1	ICT Practitioners
		6.2	ICT for Users

7.	Retail and Commercial Enterprise	7.1	Retailing and Wholesaling
		7.2	Warehousing and Distribution
		7.3	Service Enterprises
		7.4	Hospitality and Catering
8.	Leisure, Travel and Tourism	8.1	Sport, Leisure and Recreation
		8.2	Travel and Tourism
9.	Arts, Media and Publishing	9.1	Performing Arts
		9.2	Crafts, Creative Arts and Design
		9.3	Media and Communication
		9.4	Publishing and Information Services
10.	History, Philosophy and Theology	10.1	History
		10.2	Archaeology and Archaeological Sciences
		10.3	Philosophy
		10.4	Theology and Religious Studies
11.	Social Sciences	11.1	Geography
		11.2	Sociology and Social Policy
		11.3	Politics
		11.4	Economics
		11.5	Anthropology
12.	Languages, Literature and Culture	12.1	Languages, Literature and Culture of the British Isles
		12.2	Other Languages, Literature and Culture
		12.3	Linguistics
13.	Education and Training	13.1	Teaching and Lecturing
		13.2	Direct Learning Support
14.	Preparation for Life and Work	14.1	Foundations for Learning and Life
		14.2	Preparation for Work
15.	Business, Administration and Law	15.1	Accounting and Finance
		15.2	Administration
		15.3	Business Management
		15.4	Marketing and Sales
		15.5	Law and Legal Services

The framework was designed to classify qualifications, not necessarily occupations or careers. Therefore the further dimension of occupational titles must be added to this framework.

Given the scope of this pilot, only certain sectors can be addressed. These are as follows:

1.2	Nursing and Subjects and Vocations Allied to Medicine
1.3	Health and Social Care
1.5	Child Development and Well Being
3.3	Animal Care and Veterinary Science
5.1	Architecture
7.4	Hospitality and Catering
15.1	Accounting and Finance

These sectors were selected as they provide a variety of working examples for the career pathway database. In particular the chosen sectors include craft, technical and professional education and training.

## 2.4.4 Occupations

Previous work conducted into occupational titles by UK NARIC focused on those relevant to UK qualifications at NQF level 2 and NQF level 3 (SCQF levels 5-7). This work has now been developed and expanded in the sectors chosen to include associate and professional qualifications.

The occupations required for this study must fulfil certain criteria:

- Be universal to Europe in their terminology and subject areas
- Reflect an occupational role at a definable level

UK NARIC has developed the occupations used from a variety of sources including the NARIC occupational listings and ISCO classification system. The ISCO system particularly lends itself to the mapped careers. Unlike the economic classifications NACE, ISIC and ICSE also discussed in section 2.4.1, the generic titles used in ISCO are applicable to all European countries and reflect both the specialisation and the level of the occupation.

The occupational titles used in the UK NARIC Mapped Careers system have been created to reflect the occupational role as well as the level of the qualifications required for entry to that occupation. The qualification level is determined based upon an average level of the entrance qualifications from the sample European countries. The generic titles of assistant, worker, technician, officer supervisor, specialist, clerk, professional and manager which are used in the ISCO classification system indicate the level of the training required for each occupation. The table below demonstrates how the average occupational levels relate to the generic occupational titles selected for each role.

<b>Occupational Title</b>	<b>SEDOC Occupational Levels</b>	<b>EQF Occupational Levels</b>
Assistant	Level 2, Between Level 2 and 3	Level 2, Between Level 2 and 3
Worker, Officer, Supervisor, Clerk, Technician	Level 3, Between Level 3 and 4	Level 3, Level 4
Professional, Manager	Level 4, Between Level 4 and 5, Level 5	Levels 5-8

The terms junior, senior, specialist have also been used to refer to a range of occupations at different levels.

The terminology chosen is designed to reflect generic roles in an occupational area, rather than those specific to a certain national system. Accordingly, the titles can be understood by a variety of users from different European countries and clear progression charts can therefore be generated for each sector.

The occupations have at this stage all been given in English although a potential extension to this project would be to look at terminological implications.

It has been necessary to group certain occupations together to create more generic occupational classifications so that clear progression routes can be generated. For

example, in the child care sector associated roles of nanny and childminder have been grouped together. These groupings reflect the similarity of the occupations with regard to occupational role and level and content of the entrance qualifications taken in the selected nations.

## **2.5 Mapping Qualifications to Occupations**

Research has been carried out to compile lists of relevant entrance qualifications for each occupational sector. The qualifications were then linked to the most appropriate occupations based on the information provided by online career resources such as Berufsnet, LearnDirect, Connexions and Uddannelsesguiden.dk (see Appendix 4 for complete list of online resources used in the research). The lists do not represent a database of all possible qualifications that can be completed, rather the qualifications that are most likely to be completed for a specific job role.

## **2.6 Career Routes**

Career paths have been mapped linking occupations in each sector. The paths have been created to reflect the hierarchical structure of occupations in each sector, starting with assistant roles and progressing to technician/officer/worker and then professional roles where all three exist in the same line of work. Each occupation has been assigned an average SEDOC and proposed EQF level which is based on the entrance qualifications required. The occupational level determines the position of the occupation in the career path.

Generic non-country specific career paths have been created so that they can be interpreted by a variety of users. The career paths can be considered as representative of the most typical progression routes taken by those working in the sector in each of the four European systems addressed.

## **2.7 Database Design**

The resulting database is designed to give the user comprehensive, clear and valuable information regarding occupations, professions and training in the three EU Member States.

There are two search facilities. The first allows the user to search for qualifications by selecting country, level of training, sector and occupation through the use of drop down menus. A list of relevant qualifications is displayed in order of level with an indication of the country, level and subject title of each award. All qualification titles are listed in the original language.

The second search facility enables the user to search for career paths by selecting the occupational area and occupational title from which the database generates a progression chart. Boxes are displayed representing levels, each containing an occupational title. The position of each occupation in the chart is determined by the average SEDOC level of the entrance qualifications. The occupational levels are displayed using a colour coding system. A list of qualifications relevant to each occupation can be displayed by clicking on the occupational title.

### **3. Observations**

The following section discusses the key observations and highlights unforeseen problems encountered and areas for improvement which may be addressed in any future work.

#### **3.1 Occupational Titles**

The first objective of this project was to develop an occupational list applicable to all countries concerned. As is stated in the methodology section occupational titles are intended to be generic and non-country specific in their terminology. However, it is important to note that differences in the degree of specificity of the training between sectors have created a certain level of inconsistency in the occupational titles throughout the database. For example training in all three countries in the Allied Medical occupations is very specific and cannot therefore be linked to a generic occupational title. In the Hospitality and Catering sector however, qualifications may be designed for a variety of roles. For example a BTEC National Diploma in Hospitality contains a range of modules covering various aspects of housekeeping, reception and front office work. Given the broad nature of the training it was decided to create more generic occupational groupings which encompass a range of associated roles for example “Hotel Receptionist / Front Office Operations / Housekeeping Worker”.

#### **3.2 Mapping Qualifications to Occupations**

The most relevant qualifications were mapped to specific occupations at various different levels. Generally, proposed EQF level 2 qualifications were linked to assistant roles, level 3 and 4 qualifications to technician level roles and level 5 and above were mapped to professional occupations. However, it was found that in some areas training for similar roles is completed at varying levels in different countries. This is especially the case in the Nursing and Allied Medical Professions sector. For example in Germany, Midwifery Support Workers are trained at proposed EQF level 3 whereas in England, Denmark and Scotland a proposed EQF level 5 qualification is the minimum required entry level for this role. One possible solution to this problem would have been to create two distinct occupational titles. However, given that there is little difference in the role of Midwifery Support Workers in Germany and the UK, it was considered appropriate in this case to map both qualifications at level 3 and level 4 to the Support Worker occupation.

During the compilation of qualification lists it was noted that some countries do not offer qualifications at certain levels, for example the UK does not offer any qualifications at between proposed EQF levels 2 and 3 as Germany does. In addition Denmark does not offer qualifications at proposed EQF Level 4 as do Germany and the UK. The lack of relevant qualifications in these countries accounts for gaps which may be present in database qualification lists.

National qualifications are awarded in most occupational areas. However in some countries private training may be the only way to become qualified in certain subject areas. This is especially the case in Denmark, where, for instance, qualifications in Dog Grooming are offered by private schools and are not nationally



accredited by the Ministry of Education. With relation to the scope of the present project, it was decided not to include these in the database.

Similarly, professional training is rarely part of a national education system. Again, this is due to the restrictive requirements of accreditation procedures. In the UK some professional qualifications have been included and the level evaluated by UK NARIC. However, professional qualifications in Denmark and Germany have been excluded due to the complexity of the task required to assess the level of the awards. The absence of privately awarded qualifications and professional qualifications from Germany and Denmark also accounts for certain gaps that may be evident in the database qualification lists.

In the Finance sector there are a number of professional examinations that must be taken to enter certain professions. These examinations are usually taken following the completion of a degree, which, for Accountancy or Tax, is not necessarily in a directly related subject. Since those hoping to enter these professions do not face strict requirements concerning the field of study at first degree level, it was decided to only include the most relevant professional qualifications and strictly related degrees in the database.

An analysis of the occupational roles of those with proposed EQF level 5 and above qualifications led to a re-evaluation of the mapping of higher level qualifications. Traditionally, the term professional implies a graduate level of training at proposed EQF level 6 whereas Higher Technician implies training at level 4 and level 5. In sectors of a technical nature such as finance, level 5 qualifications have been mapped to technician level roles, for example NVQ Level 4 in Accounting has been mapped to Accounting Technician, a role below that of a fully qualified professional Accountant which is a level 6 occupation. However in other sectors such as hospitality and catering a sub degree level 5 qualification such as HND is just as acceptable as a degree in a hospitality related subject for entry onto a hospitality management training scheme. Furthermore, the daily duties of individuals trained to HND or a similar higher but sub-degree level are rarely different to those carried out by individuals who hold a Bachelor degree in Hospitality. Therefore proposed EQF level 5 qualifications have been considered under same occupational role as those with a bachelor degree in the Hospitality sector.

Qualifications at proposed EQF level 1 have not been included in the database. Qualifications relevant to occupations are not available at this level in Denmark and Germany. Furthermore, awards at level one from England, Wales and Northern Ireland and Scotland involve building basic knowledge and are not geared towards specific occupations and therefore could not be linked to any occupations in the database.

### **3.3 Career Paths**

A key objective of the project was to create career paths which can be considered representative of the most likely progression routes for those working in the sectors. In some sectors such as allied medical professions and nursing, due to their technical nature, progression paths typically consist of two or three roles and were relatively simple to map and effectively represent the most typical career routes for

those working in the sector. Progression is achieved through a deepening of subject-specific knowledge in a well-defined narrow area. For example, a Pharmacy Technician could, with further study of Pharmacy, progress onto the role of Pharmacist. It would, however, be very difficult for a Pharmacy Technician to progress 'sideways' into a distinct role, such as Optical Professional, as lack of technical knowledge in this area would act as a barrier.

In other sectors, however, research revealed that career paths are not so rigidly defined. These tend to be the sectors where there is less emphasis on technical knowledge, and more emphasis on personal 'transferable' skills, such as counselling or communication skills. For example in the Health and Social Care sector individuals can progress sideways with relative ease, as there is no technical knowledge barrier in place to prevent this. For example, a Care Assistant could progress onto either a Care Worker role or a Youth and Community Worker role. This results in complicated progression routes, with individuals progressing diagonally rather than in a purely linear fashion. However, sideways progression is generally rare and there is little evidence to suggest that such progression occurs in the health care sector in Denmark and Germany. Furthermore, given that our objective was to represent the most typical career routes across the four countries, it was decided not to include sideways links between roles in different subsectors.

It is important to note that in some cases the progression routes have been simplified to show how it is possible to progress from a technician or assistant role directly to a professional or managerial role by taking a degree or higher vocational diploma. In most sectors in order to progress to a professional role it would be necessary to take academic qualifications such as "A" Levels in the UK before embarking on degree level course. However, it was decided that in order to create a consistent and concise dataset, only qualifications that are directly relevant to the occupation should be included. As a result, academic qualifications required for progression to degree courses have been excluded.

#### **4. Conclusions**

The purpose of this work was to provide a strong methodology for a more comprehensive mapping exercise regarding careers, relevant training and progression routes. This has been achieved for a selection of occupations and countries.

This pilot has highlighted a number of issues in attempting to homogenise training systems and occupational progression in different countries. Due to the number of differences we found between the vocational and professional education systems and the differing requirements of occupational roles in the countries we studied, attempting to homogenise career pathways and occupational titles proved to be more problematic than at first anticipated. The result has been that in some sectors, notably the health and social care and finance sectors, both the occupational titles and career pathways have been generalised in a way that might be considered to distort and over simplify the progression opportunities for students and professionals in the EU. This problem potentially limits the usage of the system in promoting the mobility of individuals and the transparency of qualifications.

Despite these problems, the database does provide comprehensive, valuable and accurate information about the progression in sectors such as the allied medical professions in which training is more technical and well defined. In addition the database design is flexible and can be easily updated or adjusted to include information on the remaining 22 EU Member States.

The work is by no means exhaustive and should be considered to be a process of evolution, developing over time with further feedback from country representatives and sector specific bodies. The qualification lists and research carried out for this pilot could also be used and built upon in a future project focusing on the development of country specific occupational progression routes and pathways in which it will be possible to reflect the full complexity of occupational structures in selected EU countries.

## Appendix 1: Occupational Framework

Occupations in the following seven sectors were addressed. The subject sectors have been selected from the Framework of Sector and Subject Categories FSSC:

1.2	Nursing and Subjects and Vocations Allied to Medicine
1.3	Health and Social Care
1.5	Child Development and Well Being
3.3	Animal Care and Veterinary Science
5.1	Architecture
7.4	Hospitality and Catering
15.1	Accounting and Finance

### Subject Sector 1: Health, Public Services and Care

#### Sector 1.2: Nursing and Subjects and Vocations Allied to Medicine

##### Proposed EQF Level 2 Occupations

Assistant Dental Nurse  
Medical Laboratory Assistant  
Optical Technical Assistant  
Nursing Assistant  
Pharmacy Assistant  
Prosthetics/Orthotics/Orthopaedic Technical Assistant  
Cardiology Technical Assistant  
Perioperative Assistant

##### Proposed EQF Level 3 Occupations

Audiology/Hearing Technician  
Cardiology Technician / Cardiographer  
Chiropody/Podiatry Support Worker  
Dental Nurse  
Dietetics Support Worker  
Nursing Support Worker  
Occupational Therapy Support Worker  
Optical Technician  
Pharmacy Technician  
Physiotherapy/Movement Support Worker  
Prosthetics/Orthotics/Orthopaedic Technician  
Radiography/Imaging Support Worker  
Speech and Language Support Worker  
Health and Safety Officer

##### Proposed EQF Level 4 Occupations

Dental Technician  
Complementary Therapist  
Medical Laboratory Technician

### **Proposed EQF Level 5 Occupations**

Dental Hygienist  
Midwifery Support Worker

### **Proposed EQF Level 6 Occupations**

Dietician / Nutritionist  
Midwifery Professional  
Pharmacologist  
Physiotherapist/Movement Therapist  
Radiographer  
Psychologist  
Psychotherapist / Psychoanalyst  
Nurse Professional  
Prosthetics/Orthotics Professional  
Complementary Therapy Professional

### **Proposed EQF Level 7 Occupations**

Art / Drama / Music Therapist  
Audiologist/Hearing Therapist  
Biomedical Scientist  
Chiropodist / Podiatrist  
Chiropractor  
Occupational Therapist  
Optical Professional  
Perioperative Support Worker  
Pharmacist / Pharmacy Manager  
Speech and Language Therapist / Medical Voice Coach

## **Sector 1.3: Health and Social Care**

### **Proposed EQF Level 2**

Assistant Advisor/Counsellor  
Social Work / Care Assistant  
Youth and Community Work Assistant

### **Proposed EQF Level 3**

Youth and Community Worker / Work Officer  
Advisor (Guidance) / Counsellor  
Care Worker / Social Work Officer

### **Proposed EQF Level 6 Occupations**

Professional Advisor (Guidance) / Counsellor  
Professional in Youth and Community Work  
Health Education / Health Promotion Officer

Health and Safety Professional

**Proposed EQF Level 7 Occupations**

Professional (Social Care / Social Work) / Social Pedagogue

**Sector 1.5: Child Development and Well Being**

**Proposed EQF Level 2 Occupations**

Assistant in Childcare / Playwork / Social Pedagogy Setting

**Proposed EQF Level 3 Occupations**

Nanny / Childminder

Supervisor / Specialist in Childcare / Playwork / Social Pedagogy / Special Education Needs Setting

**Proposed EQF Level 5 Occupations**

Manager in Childcare / Playwork / Social Pedagogy Centre

**Subject Sector 3: Animal, Horticulture and Animal Care**

**Sector 3.3: Animal Care and Veterinary Science**

**Proposed EQF Level 2 Occupations**

Assistant Gamekeeper / Game and Wildlife Work Assistant  
Veterinary / Animal Nurse

Animal Care Assistant / Animal Nursing Assistant / Animal Welfare Assistant

**Proposed EQF Level 3 Occupations**

Trainer (Animal / Horse / Dog / Guide Dog)

Animal Work Officer / Specialist Animal Carer / Welfare Inspector / Animal Breeder / Zoo Keeper

Farrier

Groom (Animal / Dog / Horse) / Stable Hand / Jockey / Riding Instructor

Gamekeeper / Game and Wildlife Work Officer

**Proposed EQF Level 5 Occupations**

Gamekeeping / Game and Wildlife Manager

**Proposed EQF Level 7 Occupations**

Veterinarian / Veterinary Surgeon / Veterinary Scientist

Zoologist

## **Subject Sector 5: Construction, Planning and Built Environment**

### **Sector 5.1: Architecture**

#### **Between Proposed EQF Level 2 and 3 Occupations**

Technical Designer / Technical Drawer / CAD Draughtsperson (Built Environment)

#### **Proposed EQF Level 4 Occupations**

Specialist / Senior Technical Designer / Technical Drawer / CAD Draughtsperson (Built Environment)

#### **Proposed EQF Level 5 Occupations**

Architectural Technician / Technologist

#### **Proposed EQF Level 6 Occupations**

Professional Technical Designer / Technical Drawer / CAD Draughtsperson (Built Environment)

#### **Proposed EQF Level 7 Occupations**

Architect (Urban / Rural / Landscape)

## **Subject Sector 7: Retail and Commercial Enterprise**

### **Sector 7.4: Hospitality and Catering**

#### **Proposed EQF Level 2 Occupations**

Bar/Restaurant Service Staff (Junior)  
Kitchen Assistant  
Hotel Receptionist / Front Office Operations/Housekeeping Worker (Junior)

#### **Proposed EQF Level 3 Occupations**

Hotel Receptionist/Front Operations/Housekeeping Worker (Senior)  
Bar/Restaurant Service Staff (Senior)  
Chef/Cook

#### **Proposed EQF Level 5 Occupations**

Head Chef

#### **Proposed EQF level 6 Occupations**

Catering / Restaurant / Bar Manager / Publican / Licensed Premises Manager

Hotel / Accommodation Manager

## **Subject Sector 15: Business, Administration and Law**

### **Sector 15.1: Accounting and Finance**

#### **Proposed EQF Level 2 Occupations**

Accounts Assistant  
Insurance Assistant  
Assistant (Bank / Financial Services)

#### **Proposed EQF Level 3 Occupations**

Accounts Clerk  
Administrator / Technician / Worker (Bank / Financial Services / Investment)  
Advisor / Consultant (Bank / Financial Services / Investment)  
Insurance Technician / Administrator  
Officer / Administrator (Tax / Revenue)  
Insurance Advisor / Specialist

#### **Proposed EQF Level 4 Occupations**

Accounting Technician

#### **Proposed EQF Level 5 Occupations**

Professional Insurance Specialist (Underwriter / Surveyor / Loss Adjuster / Broker)

#### **Proposed EQF Level 6 Occupations**

Investment Manager / Stockbroker

#### **Proposed EQF Level 7 Occupations**

Tax / Revenue Professional (Advisor / Officer / Inspector)  
Accountant / Auditor  
Actuary  
Manager / Specialist (Bank / Financial Services)



## Appendix 2: SEDOC Structure

### Council of Europe SEDOC Classification Structure:

Agreed by the Council of Europe in 1985, the following occupational outcomes were formally categorised in a system known as SEDOC\*:

#### Level 1 (Training providing access to this level: compulsory education and professional initiation)

This professional initiation is acquired at an educational establishment, in and out-of-school training programme, or at the undertaking. The volume of theoretical knowledge and practical capability involved is very limited. This form of training must primarily enable the holder to perform relatively simple work and may be fairly quickly acquired.

#### Level 2 (Training providing access to this level: compulsory education and vocational training including, in particular, apprenticeships)

This level corresponds to a level where the holder is fully qualified to engage in a specific activity, with the capacity to use the instruments and techniques relating thereto. This activity involves chiefly the performance of work which may be independent, within the limits of the relevant techniques.

#### Level 3 (Training providing access to this level: compulsory education and/or vocational training and additional technical educational training or other secondary-level training)

The form of training involves a greater fund of theoretical knowledge than level 2. Activity involves chiefly technical work which can be performed independently and/or entail executive and co-ordination duties.

#### Level 4 (Training providing access to this level: secondary training (general or vocational) and postsecondary technical training)

This form of training involves high-level techniques acquired outside educational establishments. The resultant qualification covers a higher level of knowledge and capabilities. It does not generally require mastery of the scientific basics of the various areas concerned. Such capabilities and knowledge make it possible in a generally autonomous or independent way to assume design and/or management and/or administrative responsibilities.

#### Level 5 (Training providing access to this level: secondary training (general or vocational) and complete higher training)

This form of training generally leads to an autonomously pursued vocational activity - as an employee or as a self-employed person - entailing a mastery of the scientific bases of the occupation. The qualification required for engaging in a vocational activity may be integrated at these various levels.

\*SEDOC is a French acronym that translates as Register of Occupations and Professions in International Exchange.

CEDEFOP, the European Centre for the Development of Vocational Training, was then instrumental in subsequent studies of its value.

## **Appendix 3: EQF Structure**

### Level 1

Learning normally acquired during compulsory education and considered as contributing to a general knowledge and development of basic skills. Learning is not usually contextualized in work situations.

### Level 2

Completion of compulsory education which includes an induction to work. Basic knowledge of work can be acquired at an educational establishment, in an out-of-school training programme, or in an enterprise. Generally it is not occupation specific. The range of knowledge, skills and competence involved is limited. Qualification at this level indicates a person can perform basic tasks and exercise repetitive skills in a controlled environment. All action appears to be governed by rules defining allowable routines and strategies.

### Level 3

Completion of a basic vocational training qualification introducing the idea of job competence. It is normally considered part of upper secondary education. This qualification shows a person has basic skills suitable for many job functions and the capacity to carry out tasks under direction. Most action of people at this level of qualification is deliberate repetitive application of knowledge and skills.

### Level 4

Qualification at this level normally includes upper secondary education and a work based training programme in an alternance or apprenticeship scheme and involves developing knowledge linked to a specific occupational sector. People qualified at this level are able to work independently on tasks and have the capacity to apply specialist knowledge, skills and competences. They will have extensive experience and practice in both common and exceptional situations and be able to solve problems independently using this experience.

### Level 5

Completion of a main vocational training qualification such as apprenticeship or higher education training. This form of qualification involves significant theoretical knowledge and involves mainly technical work that can be performed independently and entail supervisory and coordination duties. Qualification at this level indicates a person can deal with complex situations and their performance can be a benchmark for others. They will have considerable experience and practice across a wide range of work situations.

### Level 6

Qualification at this level covers a high level of theoretical and practical knowledge, skill and competence, entailing a mastery of the scientific basis of an occupation.

Qualification at this level means a person can deal comfortably with complex situations is enerally autonomous and can assume design, management and administrative responsibilities. They are equivalent to the first ologna cycle of higher education. Study for these qualifications outside work takes place mostly in Higher Education institutions.

### Level 7

These qualifications recognise specialist theoretical and practical learning that is required for work as (senior) professionals and managers. People qualified at this level will have a wide breadth and depth of knowledge and be able to demonstrate high levels of specialist competence in an area. They will operate independently and supervise and train others where they can be inspiring. These qualifications are equivalent to the second Bologna cycle of higher education . Study for these qualifications outside work takes place in specialist Higher Education institutions.

### Level 8

These qualifications recognise people as a leading expert in a highly specialised field dealing with complex situations and having the capacity for long-range strategic and scientific thinking and action. Such experts develop new and creative approaches that extend or redefine existing knowledge or professional practice and often teach others to be experts and masters. The qualifications are equivalent to the third Bologna cycle of higher education . Study for these qualifications outside work takes place mostly in specialist Higher Education institutions.

#### **Appendix 4: Sector Subject Framework Members**

ACCAC	Qualifications, Curriculum and Assessment Authority for Wales
ALI	Adult Learning Inspectorate
DEL (NI)	Department for Employment and Learning Northern Ireland
DfES	Department for Education and Skills
Fdf	Foundation Degree Forward
UK NARIC	National Recognition Information Centre
ESTYN	Her Majesty's Chief Inspector of Education and Training in Wales
OFSTED	Office for Standards in Education
QAA	Quality Assurance Agency
SSDA	Sector Skills Development Agency
UCAS	Universities and Colleges Admissions Service
QCA	Qualifications and Curriculum Authority
UFI Ltd	
CCEA	Council for the Curriculum, Examinations and Assessment
Elwa	Education and Learning in Wales

## Appendix 5: Sources

The following online resources were used to obtain information regarding occupations and qualifications.

Berufsnat	<a href="http://berufenet.arbeitsamt.de/index.html">berufenet.arbeitsamt.de/index.html</a>
Anabin	<a href="http://www.anabin.de">www.anabin.de</a>
Learn Direct	<a href="http://www.learndirect.co.uk">www.learndirect.co.uk</a>
Connexions	<a href="http://www.connexions.gov.uk">www.connexions.gov.uk</a>
Uddannelsesguiden.dk.	<a href="http://www.ug.dk">www.ug.dk</a>
UCAS	<a href="http://www.ucas.ac.uk">www.ucas.ac.uk</a>
OpenQuals	<a href="http://www.openquals.org.uk">www.openquals.org.uk</a>
SQA	<a href="http://www.sqa.org.uk">www.sqa.org.uk</a>