IO 10: Research Report

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The HCEU project

More than any other sector the healthcare sector is already today dependent on the mobility of workers from across Europe and even on an international scale in order to overcome skill shortages that are strongly influencing this sector in EU Member States. So far the mobility of skilled workers is strongly hindered by highly complex and time consuming validation and recognition processes and by missing transparency among healthcare qualifications in the European Member States. HCEU makes a major contribution towards transparency of healthcare qualifications across borders and facilitates processes to formally recognise and validate healthcare qualifications acquired abroad as well as through in- and non-formal learning within different healthcare recognition and validation systems in the European Union.

For this purpose the HCEU consortium makes use of the highly awarded and already in many cases practically applied VQTS model. The VQTS model does not focus on the specificities of national VET systems but uses learning outcomes and work processes to enhance transparency. It provides a 'common language' to describe competences and their acquisition and a way to relate these competence descriptions to concrete qualifications/ certificates and competence profiles of individuals. The VQTS model relates on the one hand to the work process and follows on the other hand a 'development logical' differentiation of a competence profile. This makes it an ideal and comprehensive tool to appreciate the lifelong learning of healthcare professionals in the context of formal recognition processes.

Based on this approach HCEU develops VQTS matrices, profiles, tools and instruments for the healthcare profiles 'nurse' and 'carer for the elderly' for the national contexts of the project partners and in order to facilitate recognition praxis in between those European Member States. In addition HCEU develops transfer kits in order to facilitate the transfer of those tools also to other national (within and beyond Europe) contexts and to other fields within healthcare. Those tools are expected to make a major contribution to the work of VET providers and recognition bodies/authorities involved in transnational mobility of healthcare professionals. In this way HCEU facilitates the establishment of a European labour market that helps to overcome skill shortages and high unemployment rates through fostering mobility of healthcare professionals across the European Member States.

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General Notes

This work was carried out as part of the HCEU project by a research team of Technische Universität Dresden. Members of the research team were

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If not mentioned otherwise, chapters were written by all authors.

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We hope that this report provides useful information and further stimulus to fostering professional mobility in the Health Care Sector across countries and recognition of foreign degrees and prior learning.

Chapter 1: Introduction

(Registered) nurses alongside with professional caregivers are the most numerous health professional group and play a critical role in providing access to care. In its report 'Health at a Glance: Europe 2016', OECD states that 'more than 1.2 million people in EU countries died in 2013 from illnesses and injuries that might have been avoided through more effective public health and prevention policies or more timely and effective health care' (OECD 2016a: 3). Against this background, concerns about future shortages of professionals in the field of health care have been stated by key stakeholders such as Cedefop (2009) or OECD (2016b) and countries have recently started attracting professional caregivers from overseas, increasing the training of new caregivers and intensifying efforts to increase retention rates in the professions (for a global overview see Li/Nie/Li 2014; see also OECD 2016b).

Focusing on the European (Economic) Area where numerous initiatives to promote labour market mobility and to meet skills needs are in place (e.g. the EQF, EC Directive 2005/36 etc.), this project focused on several issues that are strongly linked with the above-mentioned situation. Health Care Europe (HCEU) aims at

- facilitating cross-border mobility of health care professionals across Europe labour markets and thus overcoming skills mismatches and skills shortages;
- promoting recognition of prior learning and foreign qualifications by developing therefore relevant tools and instruments;
- providing a better understanding and transparency of qualifications and professional certificates across national borders
- supports the learning outcomes approach by linking recognition tools and instruments with European tools such as the European Qualifications Framework, ECVET and validation guidelines.

To realise these aims one of the core ideas of HCEU project is to focus on identification, documentation, recognition and validation of prior learning including foreign qualifications and learning results gained outside formal qualification pathways. By supporting those persons and organisations involved in recognition processes the projects attempts to foster lifelong learning and cross-national mobility of health care professionals within Europe and beyond. This is done by focussing equally on formal qualifications and learning outcomes displayed and mapped in the so-called HCEU Competence Matrix. The results and outcomes of this project are meant to help mapping and comparing qualifications and individual sets of competences, knowledge and skills in the health care sector but across national borders.

Thus, the HCEU Competence Matrix "Professional Care" focuses on practical working tasks and less on education and training programmes or curricula of the corresponding occupational field. The elaborated working tasks are specified in terms of learning outcomes, whose activities then described not too detailed

HCEU thus helps tackling several challenges such as

- How can countries improve the image and attractiveness of registered nurses and other related professions such as caregivers?
- How can countries ensure formal equivalence of health care qualifications given that in some countries they are being offered at tertiary levels whereas they are being provided at upper secondary or post-secondary (non-tertiary) levels in others?
- How can stakeholders in the field (policy makers, employers, national /professional authorities and training institutions) improve the recognition and validation of foreign qualifications and prior learning (including prior work experience) to improve access to the labour market and formal qualifications?

To address these questions the project applies numerous methods including expert interviews, work-related comparison of existing qualification profiles and moderated workshops with experts from the respective occupational fields, developing a competence matrix including competence areas, its validation and revision by experts (VQTS approach, i.e. Vocational Qualification Training System). The following research report documents, summarises and critically reflects on the work done in the project and aims at providing practitioners, policy makers and researchers with new approaches and insights into promoting Health Care in the EU.

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Chapter 2: Setting the context

Chapter author: Sandra Bohlinger

This chapter provides an overview of the context of the HCEU project. The context refers to two main issues, i.e. the labour market situation and its demands in the European health care sector and the EU transparency instruments that aim at improving visibility and transparency of (foreign) qualifications and thus foster individual mobility within and beyond the EU.

2.1 Skills demands and core challenges in Health Care and Nursing in the EU

The health care sector is facing numerous challenges both inside and outside the EU. Among the most pressuring problems that have to be tackled are:

- Filling job vacancies in health care becomes more challenging given the current demographic trends and an overall lack of qualified workers and professionals in the sector in many European countries.
- New skills needs in health care demands for restructuring and re-thinking health care qualifications and the development of new ones and may lead to a shift of existing structures and classification of qualifications.
- The therewith-linked debate on academic versus vocational knowledge and qualifications in health care which – in some EU member states – has a massive impact on the prestige, remuneration and access to further/higher education and training pathways in health care and impedes comparing qualifications and their mutual recognition.
- Complicated and long-lasting processes prevent employers from hiring professionals from abroad.
- Employers and organisations in health care fail offering competitive salaries given that they are often bound to rigorous economic restrictions and competitiveness.[1]

This chapter focuses on job vacancies and the overall lack of qualified workers in the health care sector in some of the European countries as well as on emerging new skills needs in health care while the other topics are discussed in the following chapters.

With respect to job vacancies, bottlenecks[2] in health care professions are reported in many European countries. For example, the European Commission states that 21 out of 29 European countries report a lack of qualified professionals and problems with filling job vacancies, amongst them eleven countries with a lack of nursing professionals and three countries with a lack of midwifery professionals and/or nursing in combination (EC 2014, p. 69). Other health care

[1] For a detailed overview in the European health care sector see Fellows and Edwards (2016).

[2] In a Report by the European Commission, bottlenecks were defined as 'occupations where there is evidence of recruitment difficulties, i.e. employers have problems finding and hiring staff to fill vacancies' (EC 2014: 8). Such problems mainly refer to the duration needed to fill a vacancy, either in present in the past or (presumably) in the future. However, the report does not refer to a fixed time period to define this duration, it rather states that 'in bottleneck occupations vacancies take a long time to be filled. This can be measured in terms of the time it takes an employer to fill a vacancy' (ibid.).

professions where bottlenecks can be identified are e.g. specialist medical practitioners (eleven countries), generalist medical practitioners (seven countries) or medical doctors (four countries) (ibid.). However, OECD recently reported that

> 'the employment of doctors and nurses has continued to increase both in absolute number and on a per capita basis, although the demand in some countries did not grow as quickly as expected following reductions in health spending after the [economic]crisis' (OECD 2016, p. 37).

With respect to the European countries with the highest number of unfilled job vacancies and taking Finland as an example, the report summaries the core challenges with recruiting (qualified) professionals in health care:

> '[…] the lack of sufficient starting places at educational institutions is not the main reason for bottlenecks in the health care sector. A key problem is that a significant proportion of the qualified workforce works in other tasks. […] Salaries in the health care sector are fairly low, the work physically and mentally demanding and the working conditions often unfavourable. This partly explains why many decide to opt for another job in another sector. For many of the listed bottlenecks, the regulations require the applicants to hold appropriate qualifications (degree). Health professionals, such as nurse, medical doctor, practical nurse, special education teacher and dentists are good examples of professions with strict qualification requirements' (EC 2014, p. 70).

Additionally, reliable and comparable data on bottlenecks (duration of filling job vacancies, anticipation of skills needs) are hardly available at European or international levels and only partially available at national levels. Gaining reliable data is even more difficult with respect to inflows (new graduates, immigrants) and outflows (leavers, emigrants, retirees) of health care professionals and particularly with respect to the recognition of foreign qualifications. For example and with respect to the HCEU partner countries, data on job vacancies in human health and social services activities are not available for all HCEU partner countries. However, the following table clearly indicates a massive imbalance of job vacancy rates in health care in selected European countries:

Table 1: Job vacancy rates in health care including all human health and social services activities[3] (data: Eurostat).

	2015 (Q1)	2016 (Q1)	2017 (Q1)
Bulgaria	2.5	2.8	2.6
Germany	2.6	2.3	2.5
Greece	0.0	0.1*	0.0
Hungary	2.9	3.3	n.a.
Norway	3.3	2.6	2.3
Poland	0.3	0.4	0.5
Portugal	0.2	0.1	0.2
UK	2.7	3.0	2.9

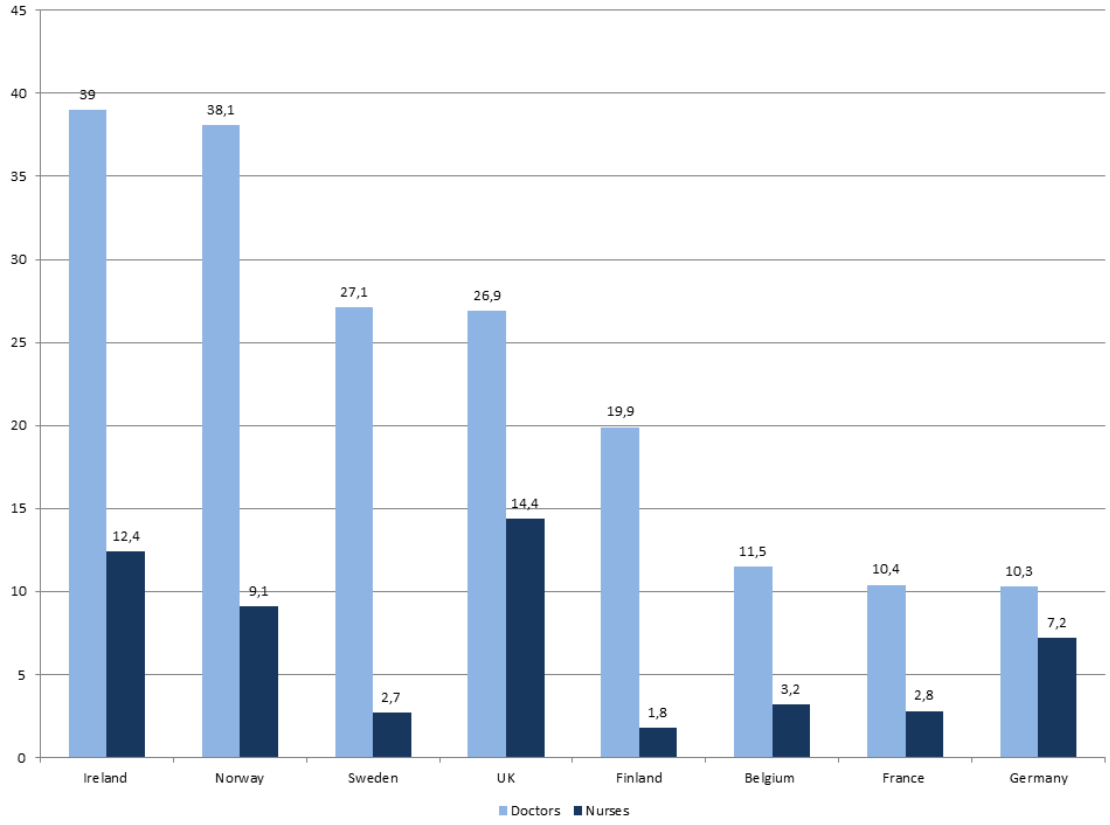
** data refer to Q2*

Another imbalance lies in the inflows of foreign-trained health care professionals. It is particularly in the Anglo-Saxon and Scandinavian countries where the share of foreign-trained professionals

[3] The job vacancy rate is defined as: [(number of job vacancies) / (number of occupied posts + number of job vacancies)] x 100.

(doctors and nurses) is above the EU average and makes up almost 40% of all professionals (share of doctors in Ireland and Norway). The following overview indicates the share of foreign-trained nurses and doctors in selected EU countries:

Table 2: Share of foreign-trained health care professionals in selected EU countries (data: OECD 2017; reference year: 2015).



With respect to national data, data sources and skills needs estimates are often not comparable as the following examples show:

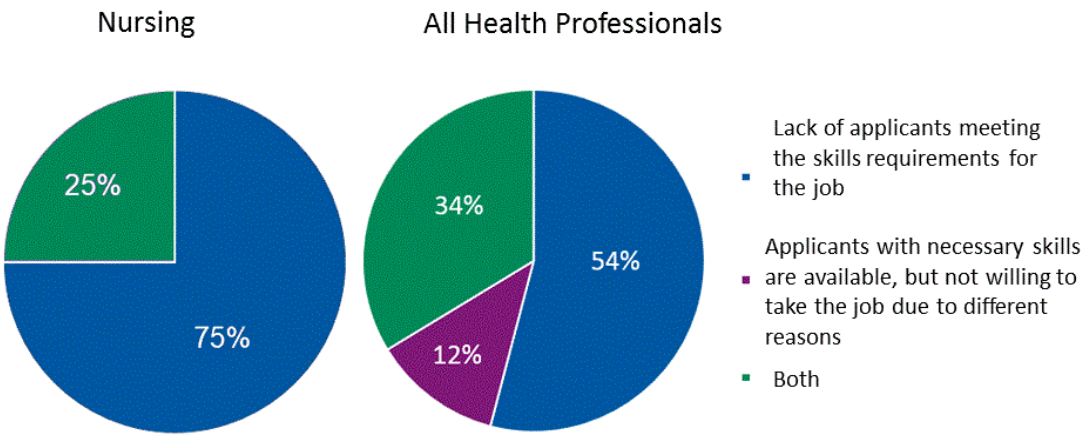
- The UK Commission for Employment and Skills (2015, p. 11) reports a growing need for staff, i.e. more than 2 million additional workers need to be trained and recruited by 2022. Also the Commission reports an above the average share of those working in the sector who are aged between 50 and 64 years. In term of the latter, OECD (2016, p. 51) reports that share of nurses aged 55 and over has also increased in many OECD countries with more than 20% in some of the OECD countries (Australia, France and the US).
- In Hungary, our project partners reported that only 14 foreign nurses came to Hungary in the first half of 2016 while 359 ones left the country in the meantime.
- In Austria, a study by the Manpower Group identified that 39% out of 752 Austrian employers indicated difficulties with hiring qualified workers. Also, the employers stated that nurses are one of ten most difficult to fill occupations (Manpower Group 2015, p. 5). In the same year, Fink et al. present a study on skills needs in Austria. With respect to nursing and

midwifery, their data on unemployment, job vacancies, requested jobs, salaries and atypical employment indicate a slight workforce shortage (Fink et al. 2015, p. 64).

- With respect to Germany and depending on the classifications on health care occupations, reports on health care professionals state that approx. 1% and 3,8% of the overall population (between approx. 1.4 m persons and 3.1 m persons) are employed in the health care sector (reference year: 2016; source: Statistisches Bundesamt 2017, Fachserie 12). The average duration to fill a job vacancy is at 130 days and at 110 days with respect to elderly care and nursing in particular. In comparison, the average duration to fill a job vacancy in general is at 86 days (reference year: 2015; Isfort et al. 2016: 29). Another Study by Bonin et al. identifies an additional need of 150.000 to 370.00 professionals (registered nurses and professionals in elderly care) until 2025[4] (Bonin et al. 2015, p. 61).

From employers' perspectives, the question arises why the bottlenecks do exist and what employers do to cope with the situation. In a report by the European Commission, national experts indicated if the reasons for bottlenecks were caused by a lack of skills or other reasons or both (EC 2014, p. 38). With respect to health professionals, the overall picture is as follows:

Table 3: Reasons for bottlenecks in the European Health Care sector (data source: EC 2014, p. 38).



Given the problems with filling job vacancies in the health care sector, the question arises what employers (can) do to hire health care professionals. In the same report (EC 2014), the European Member states declare that various initiatives are adopted by employers[5]:

[4] Time frame: 2010 to 2025.

[5] The report is based on county fiches which were developed for all European Member States. They include, amongst others, interviews (between 3 and 15 per country) and an online survey, both with national experts and desk research.

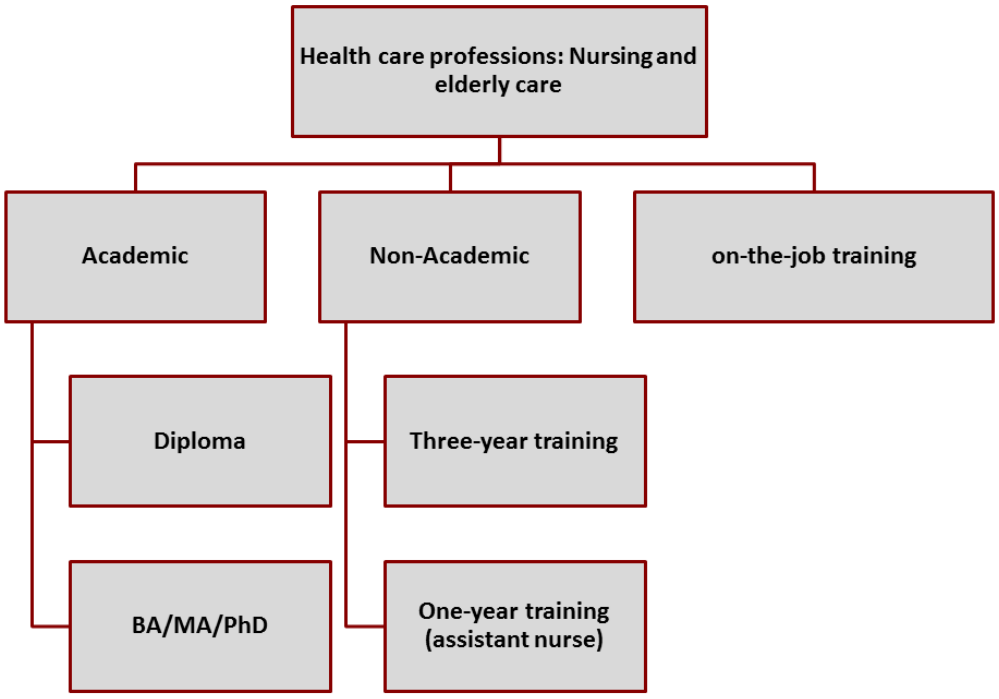
Table 4: Employers' initiatives to address bottlenecks in the health care sector (data source: EC 2014, p. 72)

Initiatives by Employers	% of bottlenecks targeted by
Improvement of terms and conditions offered for the job	24%
Increase the hours worked	11%
Reorganisation of work	13%
Providing additional training and development to existing staff	9%
Recruitment activities aimed at related occupations	9%
Campaigns and marketing	22%
Additional recruitment activities in other EU countries	38%
Additional recruitment activities outside the EU	27%
Other specify	24%

However, strategies vary immensely between countries. For example, a German employer survey with 600 HRD managers in health care found out that the most relevant measure to address the skills needs is further training of staff (100%), establishing a good working atmosphere (99%) and supporting returners from family breaks (98%) while only 16% stated that they had increased their recruitment activities outside the country (Bonin et al. 2015, p. 40).

Employers' statement that they most often either invest in staff training or increase recruitment activities inside and/or outside the EU clearly points at the relevance of recognising prior learning, foreign/prior qualifications and making (foreign) qualifications transparent and comparable. The relevance of this topic is supported by the complexity and diversity of qualification pathways in nursing and elderly care (see next graph). In general, nursing and elderly care qualifications can be allocated at post-secondary non-tertiary or tertiary levels. While some countries provide qualifications at assistant levels other allow occupational access only with minimum qualifications at Master levels. On-the-job training and further training is provided in all countries and while it is mandatory in most country, the range of volume and contents massive depends on the national regulations and the envisaged (additional) qualification.

Table 5: Types of qualifications pathways in nursing and elderly care (source: authors)



While general nursing at licensed/registered levels is equally regulated in all EU member states, this is not the case with nursing and care qualifications at assistant levels. While some countries have a compulsory curriculum (e.g. Belgium, Italy, Spain, Poland) others have training recommendations that are defined at regional levels (Austria, Germany, Switzerland) (Eurodiaconia 2016, p. 53). Moreover, there is a massive range of entrance requirements and minimum age requirements. For example, previous formal qualifications above school level are mandatory in Denmark, Ireland and Spain even for assistant qualifications whereas most countries require a general school leaving certificate only and Bulgaria does not require any formal qualification at all.

With respect to the HCEU partner countries, the following graph indicates the various qualification routes in nursing (excluding further education and training and various types of specialist training).

Table 6: Ways to gain vocational knowledge in nursing in the partner countries (source: project partners)

	Registered Nurse	Assistant Nurse
Austria	– Tertiary education (Bachelor + Master, 3 + 2 years) – Previously also post-secondary non-tertiary education, 3 years	– secondary education, 1 year
Germany	– Post-secondary education, 3 years	– secondary education or post-secondary education, 1 or 2 years
Greece	– Tertiary education (Bachelor, 4 years) – Tertiary education (Master, 2 years)	– secondary education, 3 years – post-sec. education, 1-2 years
Hungary	– Tertiary education (Bachelor, 3 years) – Tertiary education (Master, 2 years)	----------
Poland	– Tertiary education (Bachelor, 3 years) – Tertiary education (Master, 2 years)	----------

With respect to elderly care, qualifications at assistant level do exist in one country only. Also, while nursing is at tertiary levels in four project countries and in most of the countries in the EU, this is not the case with elderly care. For example, Greece does not provide and specialist qualification for elderly care – typical working tasks in elderly care are traditionally either adopted by nurses (e.g. in geriatric homes) or by relatives (e.g. in home care).

Table 7: Ways to gain vocational knowledge in elderly care in the partner countries (source: project partners)

	Elderly Care	Assistant in Elderly Care
Austria	– Secondary education, 2 years	----------
Germany	– Post-secondary education, 3 years	– secondary education or post-secondary non-tertiary education, 1-2 years
Greece	----------	----------
Hungary	----------[6]	----------
Poland	– Post-secondary education, 1-2 years	----------

With respect to new skills needs Fellows and Edwards (2016, p. 7) identify several emerging skills needs in the health care sector. These are:

- The emergence of multi- and inter-disciplinary working teams including professionals from various disciplines. Here, the authors refer to findings by Borrill et al. (2013, p. 6; in detail: Borrill et al. 1999) who found that 'when diverse professional groups, such as general practitioners, health visitors, district nurses, midwives, physiotherapists, pharmacists, counsellors, practice nurses within primary health care teams, and psychiatrists, social workers, occupational therapists, psychologists and community psychiatric nurses in community mental health teams, work well together, alternative and competing perspectives are carefully discussed leading to better quality decisions about patient care. Primary health care teams that include many different professional groups, deliver higher quality patient care and implement more innovations in patient care'.
- Ability to systems thinking and understanding which is closely linked with the first issue. Systems thinking in health care '[…] works to reveal the underlying characteristics and relationships of systems. Work in fields as diverse as engineering, economics and ecology shows systems to be constantly changing, with components that are tightly connected and highly sensitive to change elsewhere in the system. They are non-linear, unpredictable and resistant to change, with seemingly obvious solutions sometimes worsening a problem. […] Anticipating how an intervention might flow through, react with, and impinge on these sub-systems is crucial and forms the opportunity to apply systems thinking in a constructive way' (WHO 2009, p. 21).

[6] Information based on Czibere and Gal (2010) and OECD (2011).

- To increase flexibility of the workforce by promoting 'role flexibility' (Nancorrow 2015, p. 6) in the healthcare workforce. To realise such a role flexibility, Nancorrow suggests e.g. to measure health system performance from the patient's perspective, to reduce and minimize training times, to regulate tasks instead of professions or to enable practitioners to work to their full scope of practice delegate tasks where required (ibid.).
- 'Regulatory, legal indemnity and revalidation awareness' Fellows and Edwards (2016, p. 43). This refers to the numerous regulations, certification and recertification needs that are in place in the EU and that are changing more or less regularly. Health care professionals have to be aware of such regulations and (re)validation skills – may it be because they have to assess (potential) colleagues (foreign) qualifications and skills in the workplace or need retraining and recertification themselves.

While the HCEU project does not focus on reformulating existing curricula and qualifications, it took into account new skills needs whenever they were addressed by our experts who were involved with developing the matrix and whenever the issue was raised and confirmed in the project's validation workshops (see chapter 'Development of the Competence Matrix Professional Care).

All in all, the health care sector is challenged by a decrease of qualified workers and professionals leading employers to start initiatives to recruit staff from outside the country, i.e. either from inside or from outside Europe. This, in turns, demands for instruments that support mobility and employability of health care professionals and will be addressed in the following chapter.

2.2. HCEU's linkage with EU transparency instruments

This chapter aims at explaining the linkage between the project HCEU and its linkage with the core EU transparency instruments, i.e. the EQF, ECVET, ESCO and the EU validation guidelines. One of the core ideas of HCEU is to promote the Recognition of Prior Learning (RPL) to foster cross-national mobility in the EU. Thus, this chapter starts with the idea of recognising the value of (individual) learning outcomes and making them visible and useable in various contexts, particularly with respect to the labour market. This, in turns, is at the core of all EU transparency instruments.

Recognition refers to the idea of (publicly) accepting, accrediting and somehow valuing learning results and/or previously received formal qualifications and certificates. In comparison, the term validation refers to the process of identifying, assessing, and recognizing knowledge, skills and competences an individual has acquired in various learning contexts outside formal education and training systems. In 2001, the European Commission defined validation as the process of identifying, assessing and recognising a wider range of skills and competences which individuals develop through their lives and in different contexts, e.g. through education, work and leisure activities. Colardyn and Bjørnåvold (2004, p. 71) point out that validation is a crucial element to ensure the visibility and to indicate the appropriate value of the learning that took place anywhere and at any time in the life of the individual. Both, recognition and validation are understood as 'a process that identifies, verifies, and recognizes relevant learning (knowledge and skills) acquired through work and other life

experience that cannot be fully recognized by the traditional means of credential assessment, credit transfer, articulation, or accreditation' (Canadian Council on Learning, 2009, p. 4).

The heterogeneity and complexity of approaches and RPL-related notions is immense as are the multiple motives that underpin it (for a current overview see Singh and Duvekot 2013). However, at the core of the discussion and across countries, main drivers for fostering RPL are

- to promote lifelong learning,
- to foster individual employability and meet labour market demands,
- to strengthen countries' competitiveness,
- to improve social inclusion and social justice (mainly by improving labour market inclusion) and
- to better link labour markets and education and training systems.

Against this background, recognition and validation are gaining momentum in many countries inside and outside the EU, with varying drivers: national policy and legal environments such as the Council of the European Union 2012 Recommendation on the Validation of Non-formal and Informal learning requires all EU Member States to have RPL arrangements in place by 2018 including at least four elements (identification, documentation, assessment, certification) for the validation of non-formal and informal learning (Council of the EU 2012). Also, the UNESCO's 'Guidelines for the Recognition, Validation and Accreditation of the Outcomes of Non-formal and Informal Learning' (2012) propose minimum standards for implementing RPL such as ensuring equity in access to learning opportunities, fostering the equal value of learning outcomes independently of how, where and in which settings they were acquired and ensuring the central role of individuals.

In many countries and regions inside and outside the EU, RPL is closely linked with qualifications frameworks (e.g. Scotland, France, Australia, South Africa) and/or there are strong workforce development agendas to which RPL is linked as in Scotland, and, professional body activity, as is the case in Nursing in the UK for example (see e.g. Anderson/Harris 2006; Harris et al. 2011): Qualifications framework can provide a legal (binding) framework to structure (all) qualifications in (all) educational sub-systems and sectors and to promote permeability between qualification pathways.

What are qualifications frameworks?

In 2008, the European Union (2008, p. 32) defined qualifications frameworks as 'an instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which aims to integrate and coordinate national qualifications subsystems and improve the transparency, access, progression and quality of qualifications in relation to the labour market and civil society'. Thus, qualifications frameworks are part of a qualification system which is, in turns, part of an education and training system. While qualification systems is an umbrella-term for all structures and processes that lead to the award of a qualification, qualifications frameworks refer to political instruments which are implemented to better govern (vocational)

education and training systems and link qualification pathways.

Qualifications frameworks are grids or matrices that distinguish learning and qualification levels by relevant descriptors such as knowledge, skills, competences, responsibilities, attitudes, etc. according to the degree of complexity of the action situations concerned. In the EQF, this is realised by a vertical structure of eight levels which is supplemented by a horizontal structure of three types of learning outcomes (knowledge, skills, competences). This yields a 3x8 matrix of 24 cells, in the descriptor-based portrayal of which the following question arises: 'How big is this qualification? To reference this, we need a measurement, and "credit" is the means of measuring volume of learning' (Raffe et al. 2005, p. 14).

National qualifications frameworks (NQFs) span most or even all qualifications within a country and vary with respect to the number of levels and descriptors they apply as well as and in terms of their bindingness and prescriptiveness. Deriving from the Anglo-Saxon countries (the first one was implemented in Scotland in 1986), today, national qualifications frameworks can be found in more than 130 countries worldwide. In comparison, so-called meta-frameworks such as the European Qualifications Framework (EQF; adopted in 2008 and replaced by the Council Recommendation on the EQF for lifelong learning in 2017) are carried out on a voluntary basis: While NQFs refer to national qualifications and thus address national priorities including binding (validation and accreditation) mechanisms, this is not the case with the EQF which addresses EU priorities and is based on countries' mutual trust and on their willingness to co-operate. Other meta-frameworks can be found e.g. in Africa (Southern African Development Community Qualifications Framework) or Asia (ASEAN Qualifications Reference Framework).

Both, national and meta-frameworks vary in terms of their underlying principles and 'logics' (Raffe 2007; Young 2003, p. 224). While some frameworks predominantly aim at promoting lifelong learning and broaden access to learning pathways ('intrinsic logic'), others mainly strive for more effective regulations to better link educational institutions and formal qualifications with labour market needs ('institutional logic'). In both cases, the implementation of NQFs aims at ensuring a more transparent structure of qualifications in terms of learning outcomes and to improve the planning and steering of learning processes.

At the core of the linkage between qualifications frameworks and RPL is the idea of valuing individual learning outcomes (rather than focusing on particular learning settings or institutional aspects of learning processes), but also in terms of co-operation, transparency and permeability between learning pathways (Cedefop 2010, p. 57).

As Raffe et al. (2005; see info box on previous page) has pointed out, the instrument and 'measure' to answer the question 'how big is a qualification?' in terms of learning volumes are credits and credit system for accumulation and transfer of learning outcomes and qualifications. In the EU, there are two main credit point systems in place, one of them referring to higher education (ECTS, European Credit Transfer System) and one of them referring to vocational education and training (ECVET, European Credit System for Vocational Education and Training).

ECVET is defined as an instrument that aims 'at facilitating the transfer, recognition and accumulation of learning outcomes of individuals on their way to achieving a qualification' (European Union 2009, p. 12). It breaks down qualifications into smaller components such as units or modules which can be documented and assessed. Applying learning units allows for identifying which components of a qualification have been achieved prior to a recognition process and which components have not yet been achieved. Moreover, identifying common components of formal qualifications and applying a learning outcomes orientation opens up for establishing connections between different types of qualification. This may lead to improved transfer between formal qualifications on the one hand and non-formal/informal learning on the other.

Thus, ECVET and recognition are both applied by individuals who seek to have their learning outcomes documented, assessed, validated, and certified. In comparison, qualifications frameworks are applied at macro level (e.g. national education policies) and meso level (e.g. national/regional qualifications authorities, education and training institutions). Thus, qualifications frameworks make explicit the relationships between different types and levels of qualifications, 'thus clarifying areas where credit transfer can potentially occur (assuming that transfer can only take place if the level of learning is appropriate) as well as clarifying the possibilities for progression' (Cedefop 2010, p. 58). Findings from previous projects have shown that in a wider context, benefits that arise from applying ECVET and linking it with RPL can be

- to better address the needs of mature learners and part-time students by providing alternative forms of entry requirements and shorten the period of study through earning exemptions, i.e. a reduction of time needed to complete a qualification and thus a reduced time away from the workplace;
- to better contribute to the match of work supply and demand by addressing what a learner is actually able to do after completion of a qualification;
- to increase motivation and interest in workplace practice from the learner's/employee's perspectives;
- to help improving employee retention, reduction of recruitment and training costs (Bohlinger 2003).

As a starting point to support these benefits aims and as a contribution to realise the overall aims of ECVET, HCEU refers to existing RPL guidelines and recommendations, predominantly the Council of the European Union's 'Recommendation on the validation of non-formal and informal learning' (2012) and in Unesco 'Guidelines for the Recognition, Validation and Accreditation of the Outcomes of Non-formal and Informal Learning' (2012). Following these guidelines and recommendations, any validation and recognition procedure should be based on principles

- ensuring equity in access to learning opportunities and in equal treatment for all. Every individual should have both the right to access and engage in any form of learning suited to her/his needs, and to have her/his learning outcomes assessed and validated;

- fostering the equal value of learning outcomes independently of how, where and in which settings they were acquired. Thus, prior learning outcomes should be treated on a par whith those obtained in formal learning settings;
- ensuring the central role of individuals within the RPL process that is, participation in RPL should be on a voluntary basis emphasising the needs of the individual learner;
- opening up formal education and training, providing more flexible pathways to qualifications and thus, taking into account learners' experience and needs;
- promoting quality assurance in the entire RPL process. Any RPL process should be based on basic quality assurance criteria, i.e. objectivity, reliability, validity, fairness and transparency;
- enhancing trust in the value of prior learning and its validation by documenting each RPL procedure, providing transparency of each step of the RPL procedure and evaluating RPL processes regularly;
- strengthening partnerships and enhancing trust in RPL among all stakeholders to develop shared responsibilities in the overall RPL procedure and actually allocate responsibilities among stakeholders: Stakeholders should establish competences, rights, and responsibilities as well as credibility and legitimacy of those who carry out the assessment. This also includes to respect legitimate interests of relevant stakeholders and to avoid conflicts of interests.

The latest instrument that was developed to 'building the bridge between education and training and employment' is ESCO, the multilingual classification of European Skills, Competence, Qualifications and Occupations [that] identifies and categorises skills, competences, qualifications and occupations relevant for the European labour market and education and training' (European Commission 2017: 9). ESCO is based on three pillars, partially referring to other European transparency instruments such as the EQF:

- the occupations pillar which describes 2,942 occupations that are relevant for the European labour market and defined as a 'set of jobs whose main tasks and duties are characterized by a high degree of similarity' whereby a 'job' is defined as 'set of tasks and duties carried out, or meant to be carried out, by one person for a particular employer, including self-employment' (ibid, p. 12[7]);
- the knowledge, skills and competences pillar which are defined in terms of the EQF knowledge, skills and competences definitions[8] but providing a clear distinction between skills and competences[9];

[7] With these definitions, ESCO refers to the definitions provided by the International Standard Classification of Occupations (ISCO-08) .

[8] These definitions are: 'Knowledge: The body of facts, principles, theories and practices that is related to a field of work or study. Knowledge is described as theoretical and/or factual, and is the outcome of the assimilation of information through learning. Skill: The ability to apply knowledge and use know-how to complete tasks and solve problems. Skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments). Competence: The proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations, and in professional and personal development' (Council of the European Union 2017).

[9] 'While sometimes used as synonyms, the scope of the terms "skill" and "competence" can be distinguished. "Skill" refers to the use of methods or instruments in a particular setting and in relation to defined tasks. "Competence" is broader and refers to the ability of a person, facing new situations and unforeseen challenges, to use and apply knowledge and skills in an independent and self-directed way. However, there is no distinction between skills and competences recorded in the ESCO skills pillar.' (European Commission 2017, p. 19).

- and the qualifications pillar referring to the EQF Recommendation which in turns is based on a Council definition stating that qualifications are 'the formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards' (Council of the European Union 2012, p. 5).

In the same document, the European Commission (2017, p. 30) describes the linkage between the EQF and ESCO as follows: 'The main goal of the EQF is to facilitate lifelong learning and promote people's mobility between countries. […] Using learning outcomes as a common reference point, the EQF facilitates comparison and transfer of qualifications among countries, systems and institutions and is therefore relevant to a wide range of users at European and national levels. National databases of qualifications, which provide their data to the ESCO qualifications pillar, provide information on the EQF level of the qualifications they contain, therefore fostering transparency and comparability'.

While all these instruments vary in terms of their scope, bindingness and target groups, their overall aims is similar and refers to enhancing employability and mobility as well as fostering motivation for participation in lifelong learning and the labour markets.

With respect to HCEU, the matrix, instruments and guidelines that were developed in the project are closely linked with the EU instrument. In particular, the development of the VQTS matrix for health care including the learning outcomes are based on the logic and structure of the European Qualifications framework. We describe the development process and this linkage in detail in chapter 6.

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Chapter 3: Clarifying Terminology

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This chapter intends to clarify the concepts and notions relevant for HCEU. It thereby ensures that all readers and the project partners refer to the same terminology and core concepts within the project. Also, clarifying terminology ensures that the overall structure and core ideas of the project are in line with the European Union's main concepts of workplace learning and recognition of prior learning. Among the key notions and concepts are:

- Types of learning: formal, non-formal and informal learning as well as learning outcomes.
- Knowledge, skills and competences.
- Expertise and professionalism.
- Recognition, validation, assessment and accreditation.
- Health care.
- Competent authority.
- Regulated and sectoral professions.
- Formal qualifications.

A separate glossary for health-care specific terms (including e.g. 'assistance', 'supervision', diagnosis' etc.) is provided on the HCEU website as well.

3.1 Types of learning

Learning in various forms are among the key words of this project. Learning may occur inside or outside formal or institutional contexts (e.g. in school, training organisations, universities etc.) and types of learning much vary in terms of access to learning, motivation, intention and its organisation. Though a clear-cut definition of various forms of learning does not exist, numerous concepts of formal, non-formal and informal learning have emerged during the past decades (Engeström 1984; Eraut 2000; Scribner/Cole 1973). Based on these concepts, the European Commission (2001) has proposed a distinction between formal learning, non-formal learning and informal learning which is widely accepted and which we follow in this project:

- "Formal learning consists of learning that occurs within an organised and structured context (formal education, in-company training), and that is designed as learning. It may lead to a formal recognition (diploma, certificate). Formal learning is intentional from the learner's perspective.
- Non-formal learning consists of learning embedded in planned activities that are not explicitly designated as learning, but which contain an important learning element. Non-formal learning is intentional from the learner's point of view.

- Informal learning is defined as learning resulting from daily life activities related to work, family, or leisure. It is often referred to as experiential learning and can to a certain degree be understood as accidental learning. It is not structured in terms of learning objectives, learning time and/or learning support. Typically, it does not lead to certification. Informal learning may be intentional but in most cases, it is non-intentional (or 'incidental'/random)."

Based on the project partners' experience gained in previous projects (euVETsupport[10]; METALOG[11]) as well as seen from a research point of view (e.g. Becket/Hager 2002; Bohlinger 2008; Engeström 1991), a clear distinction between these types of learning is hard to be applied in everyday life. Thus, we refer to the term ***prior learning*** (instead of non-formal and informal learning). Prior learning is defined as any kind of learning and its results in terms of knowledge, skills, competences, attitudes, and (work) experience no matter where, when and how it was gained. Such learning results are also called ***learning outcomes***. However, seen from a research point of view, there is no generally accepted term for describing the results of a learning process. While the European education policy debate has been in favour of the term "learning outcomes" this is neither the case with most of the political debates at national levels nor with the academic discourse on learning results. National policy debates are often linked with validation and recognition of so-called prior learning while research-based discussions have mainly referred to models and theories on developing, evaluating, and assessing knowledge, skills, abilities, competences, capabilities or (work) experience rather than referring to the notion of learning outcomes (Bohlinger 2008; Colardyn 1996; de Terssac 1996).

In comparison and seen from a political and a practical point of view, the core idea of learning outcomes is "simply" to promote, to make visible and to make full use of the entire scope of competences, knowledge, skills, attitudes and experience gained by an individual over the lifespan and irrespective of where, when and how the learning took place: "For an employer it is a question of human resource management, for individuals a question of having the full range of skills and competences valued and for society a question of making full use of existing knowledge and experience, thus avoiding waste and duplication" (Colardyn/Bjørnåvold 2004: 69).

Against this background, we propose to define ***learning outcomes*** in terms of knowledge, skills, competences, attitudes, and (work) experience. They are an inherent part of learning and work processes and result from any kind of these processes.

Following the European Commission's understanding of learning outcomes (as defined in the EQF as so-called descriptors), we define knowledge as theoretical and/or factual. In the context of EQF[12], ***knowledge*** 'means the outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of study or work' (European Commission, 2006, p. 16). In the EQF, knowledge is described as theoretical and/or factual. ***Skills*** 'means the ability to apply knowledge and use know-how to complete tasks and solve problems' (ibid.). In the EQF, a distinction is made between cognitive skills (involving the use of logical, intuitive and creative thinking) and practical skills (involving manual dexterity and the use of

[10] http://www.euvetsupport.eu/
[11] www.project-metalog.eu/
[12] https://ec.europa.eu/ploteus/content/descriptors-page

methods, materials, tools and instruments). Moreover, ***competence*** defined as 'the proven ability to use knowledge [and] skills'. It is also described 'in terms of responsibility and autonomy' (ibid.). Thus, we refer to a holistic understanding of competence seeing it as an 'integrated and multi-faceted combination of cognitive, functional and social dimensions' (Lodigiani/Sarli 2017: 2) which includes the use of theory, tacit knowledge, functional skills (e.g. technical skills), behavioural and attitudinal aspects and ethical values (Cedefop 2006: 2014). Last not least, ***abilities*** (as underlying concepts of both skills and competence) can be described as 'stable attributes of individuals to explain individual differences in behavior' (Ericsson 2003: 94).

3.2 Developing expertise and professionalism

Developing expertise and professionalism is closely linked with acquiring learning and demonstrating learning results (performance)[13]. Rooting in the analysis of domain-specific acting of persons who were accepted as outstanding in a particular field (e.g. chess players, Olympic medal winners, Nobel-prize winners etc.) as well as experienced and professional persons (e.g. airplane pilots, automobile drivers, adult learners of a second language) numerous models of expert development emerged during the past decades (for an overview see Ericsson et al. 2006). Most of these models go back to Dreyfus (1981; 2004) and Dreyfus and Dreyfus (1984) who developed a five-stage model of expertise development (see next page). Such models including the one by Dreyfus and Dreyfus include aspects such as

- the perspective from which learners/performers analyse a tasks and the therewith related domain or environment;
- the mode of decision-making, i.e. the question how and to which degree learners/performers (have to) follow rules and need advice to take a decision;
- the ability to perceive elements of situational contexts and taking them into consideration when taking a decision
- the degree to which learners/performers are able to build up their decision on knowledge and expertise and building up a knowledge base.

This Dreyfus and Dreyfus model was early adapted by Brenner (1982; 1984) who used it to analyse the development of clinical expertise in general and nursing expertise in particular. Again, this model is built on five stages of competence development starting from a beginner's perspective and leading to mastering a domain (see next pages).

[13] We are well are of the long-lasting discourse about competence versus performance, competence development and competence measurement. For an excellent overview of this topic, readers might refer to Mulder (2017).

Table 8: Five stages of expertise development (cf. Dreyfus 1981, p. 25; Dreyfus/Dreyfus 1986, p. 50; Dreyfus 2004)

	Stage	Components	Decision-making
1	**Novice**	The novice learner decomposes the task environment into context-free features that they can recognize without the desired skill.	Following rules for determining an action on the basis of the attributes gained from decomposing the task environment
2	**Advanced Beginner**	Advanced beginners can gradually cope with real situation and start identifying – with the help of instructors – relevant aspects of contexts, environments, domains or situations.	Still following rules and instructions but refer to additional situational aspects, adding them to their knowledge base and building up a basis of experience. If rules do not work, the learner rationalizes that they had been given inadequate rules.
3	**Competence**	The competent learner is overwhelmed by the number of potentially relevant elements and procedure to be recognised and considered. However, the learner cannot yet identify what is important in a particular situation (and what is not):'To cope with this overload, and to achieve competence, people learn, through instruction or experience, to devise a plan or choose a perspective that then determines those elements of the situation or domain that must be treated as important and those that can be Ignored' (Dreyfus 2004: 178).	Learners are still seeking for rules but the per but given the complexity and volume of situations and possible solutions and the therewith-linked uncertainty, the leaner often feels frightened and exhausted. The learner understands that they are responsible for their perspective and decision and often, the choice leads to confusion and failure.
4	**Proficiency**	The proficient learner starts restraining from simply following rules as they are emotionally more involved in a task. Learners accept the uncertainty and anxiety of choice and by gaining more experience, the learners gradually replace rules and principles by situational 'discriminations', context-related perceptions and variations of approaching and solving tasks: 'Proficiency seems to develop if, and only if, experience is assimilated in this embodied, atheoretical way' (Dreyfus 2004: 179).	Now, the learner recovers numerous solutions and aspects of tasks environments but does not yet know how to achieve them. Still, they lack sufficient experience how to respond to the situation adequately: 'Thus, the proficient performer, after spontaneously seeing the point and the important aspects of the current situation […] fall back on detached rule and maxim following.
5	**Expertise**	The expert intuitively sees what needs to be done AND sees immediately sees how to achieve this goal. It is the latter one that distinguishes them from the proficient learner.	The expert is able to make more subtle and refined situation-related discriminations which is what distinguishes them from the proficient performer. This includes various tactical decisions and subtly different approaches to solve task – though the situations may look more or less alike: 'The brain of the expert gradually decomposes this class of situations into subclasses, each of which requires a specific response. This allows the immediate intuitive situational response that is characteristic of expertise' (Dreyfus 2004: 180).

Table 9: Benner's five stages model of competence development including examples from the field of clinical competence (cf. Benner 1982; 1984: 13ff.)[14]

	Stage	Components	Perspective	Decision	Example
1	**Novice**	Rigid adherence to taught rules or plans	Little situational perception	No discretionaly judgement	The Novice has no experience in the situations in which they are expected to perform. The Novice lacks confidence to demonstrate safe practice and requires continual verbal and physical cues. Practice is within a prolonged time period and he/she is unable to use discretionary judgement.
2	**Advanced Beginner**	Guidelines for action based on attributes or aspects (aspects are global characteristics of situations recognisable only after some prior experience)	Situational perception still limited	All attributes and aspects are treated separately and given equal importance	Advanced Beginners demonstrate marginally acceptable performance because the nurse has had prior experience in actual situations. He/she is efficient and skillful in parts of the practice area, requiring occasional supportive cues. May/may not be within a delayed time period. Knowledge is developing.
3	**Competent**	Coping with crowdedness Now sees actions at least partially in terms of longer-term goals	Conscious deliberate planning	Standardized and routinized procedures	Competence is demonstrated by the nurse who has been on the job in the same or similar situations for two or three years. The nurse is able to demonstrate efficiency, is coordinated and has confidence in his/her actions. For the Competent nurse, a plan establishes a perspective, and the plan is based on considerable conscious, abstract, analytic contemplation of the problem. The conscious, deliberate planning that is characteristic of this skill level helps achieve efficiency and organisation. Care is completed within a suitable time frame without supporting cues.
4	**Proficient**	Sees situations holistically rather than in terms of aspects Sees what is most important in a situation Perceives deviations from the normal pattern	Decision-making less laboured	Uses maxims for guidance, whose meaning varies according to the situation	The Proficient nurse perceives situations as wholes rather than in terms of chopped up parts or aspects. Proficient nurses understand a situation as a whole because they perceive its meaning in terms of long-term goals. The Proficient nurse learns from experience what typical events to expect in a given situation and how plans need to be modified in response to these events. The Proficient nurse can now recognise when the expected normal picture does not materialise. This holistic understanding improves the Proficient nurse's decision making; it becomes less laboured because the nurse now has a perspective on which of the many existing attributes and

[14] Benner's examples refer to the unpublished version of Dreyfus' and Dreyfus' study which was finally published in 1986 (Dreyfus, S./Dreyfus, H, 1980: A Five-Stage Model of the Mental Activities Involved in Directed Skill Acquisition. (Supported by the U.S. Air Force, Office of Scientific Research (AFSC) under contract F49620-C-0063 with the University of California, Berkeley, February 1980, unpublished).

					aspects in the present situation are the important ones.
5	**Expert**	No longer relies on rules, guidelines or maxims	Intuitive grasp of situations based on deep tacit understanding. Analytic approaches used only in novel situations or when problems occur	Vision of what is possible	'At the expert level, the performer no longer relies on an analytical principle (rule, guideline, maxim) to connect her/his understanding of the situation to an appropriate action. The expert nurse, with her/his enormous background of experience, has an intuitive grasp of the situation and zeros in on the accurate region of the problem without wasteful consideration of a large range of unfruitful possible problem situations. It is very frustrating to try to capture verbal descriptions of expert performance because the expert operates from a deep understanding of the situation, much like the chess master who, when asked why he made a particularly masterful move, will just say, "Because it felt right. It looked good" '(Benner 1982: 405).

Though both models proved helpful to gain an understanding how learners acquire expertise and build up experience and competence they are by far not the only one models in this field. Expertise and professional knowledge have been analysed for decades (for an overview see e.g. Ericsson et al. 2007). The models by Dreyfus & Dreyfus and Benner were questioned many times. Critical perspectives mostly refer to the numerous assumptions underlying the models. For example, while Dreyfus and Dreyfus assume that learning is context-free, Pena (2010, p. 3) points out that learning

> 'cannot be detached from context. Even at the pre-beginner stage, learners gain experience and understanding of context; information, context, and experience cannot be separated. […] [Also,] There is always an emotional attachment to the task even at novice stages; hence there is always an experience of personal responsibility (Pena 2010, p. 3).

In comparison, Dreyfus and Dreyfus had pointed out that emotion is hardly involved in the learning process at the earlier stages of learning. According to their model, novices simply follow rules without being emotionally involved with the task environment and without feeling responsible for anything aside following the rules.

Other points of critique refer to assumptions such as

- skills are automatic 'dispositions' stored in learners' minds […]
- acquisition of skills and competences of any kind can be explained with the models
- the acquisition of skills and competences is 'a gradual transition from rigid adherence to rules, to an intuitive mode of reasoning that relies heavily on deep tacit understanding'
- that 'a high degree of performance is attained when the individual works intuitively' (Pena 2010, p. 3).

Even though the models were criticised numerous times they are still among the most prominent ones in the context of the EU transparency instruments and are built on the assumption that learning and gaining expertise follow a stages-like process. This, in turn, is the core idea of the EQF and thus of our HCEU matrix and the respective learning outcomes.

3.3 Recognition and validation

In general, the term ***validation*** refers to the process of identifying, assessing, and recognizing knowledge, skills and competences an individual has acquired in different learning contexts outside formal education and training systems. In 2001, the European Commission defined validation as the process of identifying, assessing and recognising a wider range of skills and competences which individuals develop through their lives and in different contexts, e.g. through education, work and leisure activities. Colardyn and Bjørnåvold (2004: 71) point out that validation is a crucial element to ensure the visibility and to indicate the appropriate value of the learning that took place anywhere and at any time in the life of the individual.

Both, ***recognition*** and ***validation*** are understood as 'a process that identifies, verifies, and recognizes relevant learning (knowledge and skills) acquired through work and other life experience that cannot

be fully recognized by the traditional means of credential assessment, credit transfer, articulation, or accreditation' (Canadian Council on Learning, 2009: 4). Thus, recognition and validation are twofold, i.e. they refer to 'the recognition of formal qualifications obtained abroad and that of skills, knowledge and competence (SKC) acquired in non-formal and informal contexts, by focusing on their actual effectiveness for the integration of migrants' (Lodigiani/Sarli 2017: 2).

This definition points out that a general understanding of recognition and validation does not exist. Instead, we find notions such as accreditation, certification, assessment or award that are used in terms of validation. The heterogeneity and complexity of notions is immense as are the multiple motives that underpin recognition and validation systems. However, at the core of the discussion and across countries we find similar criteria for implementing validation systems which are

- to promote lifelong learning,
- to foster individual employability and meet labour market demands,
- to strengthen countries' competitiveness, and
- to better link labour markets and education and training systems.

We propose to use the term '***Recognition of Prior Learning' (RPL)*** in terms of the process of identifying and then valuing in some way the past learning of individuals and its results which is widely practiced around the world. It is a general term of all types of activities referring to assessment, accreditation, and validation.

We propose to define ***validation*** as the process of identifying, assessing and formally recognizing knowledge, skills, and competences one has acquired in different learning settings and contexts outside the formal education and training system. Validation is intended to support formal recognition and thus, to help individuals with job security improvement and accessing the labour market or education and training programmes. It is a process that identifies, verifies, and recognizes relevant learning outcomes (knowledge, skills, competences, and attitudes) acquired through work and other life experience that cannot be fully recognized by the traditional means of assessment, credit transfer, articulation, or accreditation.

However, there is a difference between accreditation of prior learning and prior learning assessment. The notion of ***accreditation*** refers to an academic/institutional process that recognises and values the previous work experience and/or learning outcomes of an individual. In comparison, the term ***assessment*** refers to the process of documenting knowledge, skills, competences, and any type of prior learning against predefined criteria. Such criteria usually include learning expectations, measurement of learning outcomes, and the scope of assessment criteria. Assessment can focus on individual learners, groups of learners (class, workshop, training programme etc.), an institution, or an education and training system as a whole.

3.4 Health Care

Basically, health care aims at preventing or improving a person's well-being. It includes all medical procedures done with surgery, the administering of medicine, or other alterations to impact on a person's health status. Health care services are typically offered through a health care system including hospitals, homes for the elderly, day care centres etc. According to the WHO health care refers to services provided to individuals or communities by health service providers for the purpose of promoting, maintaining, monitoring or restoring health (WHO 2004, p. 27).

According to the European Labour Force Survey, health is part of the health and social care sector (NACE2) and consists of three parts, i.e.

- ***human health care*** (Q86) including e.g. nurses, midwives, physiotherapists or other paramedical practitioners in the field of optometry, hydrotherapy and medical massage;
- ***residential care activities*** (Q87) including e.g. provision of residential care and treatment for patients with mental health and substance abuse illnesses, activities of assisted-living facilities, continuing care retirement communities and n homes for the elderly with minimal nursing care, activities of homes for the elderly with nursing care, rest homes with nursing care, nursing care facilities and nursing homes
- ***social work activities without accommodation*** (Q88) including e.g. visiting of the elderly and disabled as well as day-care activities for the elderly or for disabled adults (Eurostat 2008).

What is NACE?

NACE is an acronym to describe statistical classifications of economic activities in the European Union. Literally it means: 'Nomenclature générale des Activités économiques dans les Communautés Européennes" (Statistical classification of economic activities in the European Communities). NACE2 is the revised version of the first NACE (1970) and was adopted in 2006. NACE is a four-digit classification building the basis for statistical data collection in the EU with reference to (national) economic activities (e.g. production, employment). The letter 'Q' summarizes all economic activities in human health and social work.

HCEU refers to Q86 and Q87 only. In detail, the project focuses on nursing and elderly care professionals including qualified nursing (registered nurses) and assistant nursing (assistant nurses) as well as on elderly care and assistants in elderly care. While professional training, tasks and duties vary from country to country, most of these professions fall in the scope of Directive 2005/36/EC and Directive 2013/55/EU[15] on regulated professions.

[15] The latest amendments of this Directive were made in 2016 (2016/790/EU).

3.5 Competent authority

A competent authority (sometimes also referred to as 'competent body') is the body recognized by law to administer the recognition of prior learning and/or of foreign qualifications. In some countries, chambers, professional associations or educational institutions have the right to act as competent authorities in a particular scope. With respect to the HCEU partner countries this refers to e.g.

- at national levels: the Federal Ministry of Health (Germany), the Federal Ministry of Health and Women's Affairs (Austria) or the Ministry of Health (Poland);
- at regional levels: the District Government of Upper Franconia (Bavaria/Germany) or National Healthcare Service Center Budapest (Hungary).

With respect to Directive 2005/36/EC on regulated professions, a competent authority may be the key authority that is responsible for ensuring that all relevant stakeholders apply and follow the Directive.

3.6 Regulated professions and sectoral professions

In the EU, access to performing some professions is restricted to persons who have obtained particular trainings, i.e. it is illegal to work or even use the title of the profession if the worker is not registered with the competent authority ('regulatory body'). These professions are regulated at European level according to Directive 2005/36/EC, Directive 2013/55/EU and the Commission Delegated Decision (EU) 2016/790, the latter ones being amendments of Directive 2005/36/EC.

The Directives go back to the 1950s and the emergence of today's European Union when countries were not obliged to recognise professional qualifications though the Treaty of Rome guaranteed free movement of individuals. To ensure free movement of individuals the thus-time European Economic Area started developing sectoral directives improving the process of mutual recognition of professional qualifications including e.g. medical doctors or (general) nurses. These initiatives were followed by the development of several so-called 'general systems directives' which aimed at developing a general process of mutual recognition of certificates and degrees, rather than at harmonizing training pathways, diplomas and degrees as was the case with the sectoral directives: 'This approach meant that an individual recognized as a professional in one Member State could also be recognized as such in another, providing the profession concerned was a regulated one in both Member States' (Keighly 2009, p. 2). Following this logic, the European Commission passed Directive 2005/36/EC ('recognition of professional qualifications') which came into force in October 2007. Directive 2005/36/EC aims at simplifying the process of so-called mutuality including harmonization and recognition: 'Mutuality is the process by which decisions reached in one Member State are honoured in another, unless there are clear grounds for doubt' (ibid, p. 3).

With respect to HCEU, some of the occupations the project aims at are regulated professions – at least in some countries. For example, whereas the 'general' nurse is a regulated profession in all Member States of the European Union and requires at least three years (2400 hours) of professional

training, this is not the case with respect to elderly care: Elderly care is an independent profession in Germany, Austria and Poland but only in Germany it is a regulated one. Moreover, no distinction is made between nursing and elderly care in Greece.

This difference is based on what the European Union calls **sectoral professions**: Based on the above-mentioned directive, there is a system of automatic recognition of professional qualifications for seven so-called sectoral professions including nurses, midwives, medical doctors, dentists, pharmacists, architects and veterinary surgeons. With respect to all EU nationals (i.e. professionals who received their degree in one of the EU/EEA Member States or Switzerland) and intending to move and work in another EU/EAA Member State, these professionals must apply to a competent authority to have their qualification recognised and provide proof of their qualification. However, the recognition of their qualification is not based on an individual assessment of documents, skills etc. but on an automatic recognition given that their profession was acquired in one of the relevant countries. (EU, EEA Member States and Switzerland). A detailed overview of this topic is provided in chapter 4.

Contentwise, 'regulated professions' refer to professions (trades and occupation) whose access requires professional qualifications based on the evidence of formal qualifications. Such qualifications attest a particular set of knowledge, skills, competences (and work experience) usually acquired in formal training institutions and issued by a competent authority.

3.7 (Formal) Qualifications

Formal qualifications refer to diplomas, certificates and other evidence issued by an authority certifying successful completion of professional training. In general, the results of a specific learning process are measured at the end of a particular learning duration and volume of learning content which may lead to the issuing of a formal certificate stating that an individual has acquired a particular qualification. Formal qualifications and learning pathways towards qualifications differ massively between (educational or labour market) sectors but also between countries. The same is true with respect to the awarding bodies, the volume and duration of learning processes to receive a qualification and the therewith-linked examination.

In this context, one of the key issues to gain access to the European Health Care Sector is the question where the formal qualification was issued. This can be either in one of the European Member States or in a third country if the holder proves a minimum volume of professional experience and/or equivalent qualifications or in a European Member State (or EEA state or Switzerland) which recognised the formal qualifications obtained in the third country by permitting the applicant to pursue the profession on its territory in accordance with its rules, and certified by that State.

In the context of HCEU, a formal qualification refers to the definition provided by the Council of the European Union (2012) that builds the fundaments for a number of European transparency instruments such as the Recommendation on the Validation of Non-Formal and Informal Learning,

the EQF or ESCO (see chapter 6). This definition states that qualifications are 'the formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards' (Council of the European Union 2012, p. 5).

As we pointed out in the previous paragraphs many of the EU transparency instruments aim at providing a 'translation tool' to better understand qualifications and to make them more comparable across countries and sectors. However, a number of instruments that have been in place for a much longer time than the EU transparency instruments provide a powerful classification scheme for statistics and thus for comparing qualifications. The most prominent ones are the ISCED and the ISCO which we will also use for classifying the national qualifications that are available in the project partner countries.

ISCED is the International Standard Classification of Education developed by the Unesco (United Nations Educational, Scientific and Cultural Organization, Paris). It covers nine levels (including level '0' with two sub-levels for pre-primary education) characterised by the duration of a formal learning process including its share of theoretical knowledge.

ISCO is the International Standard Classification of Occupations developed by the ILO (International Labour Organization, Geneva) classifying jobs, occupations and work. This classification scheme aims at mapping jobs and occupations according to a pre-defined set of four hierarchical groups (major groups, sub-major groups, minor groups, and unit groups). These groups are defined according to the tasks and duties undertaken in the job, occupation etc.

Though both instruments (so-called classification schemes) were mainly established for statistical purposes they are nowadays also used to 'identify' the formal value of a qualification in comparison with other qualifications.

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Chapter 4: Recognition praxis and legal conditions in HCEU's project partner countries

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This chapter provides information on the recognition of (foreign) formal qualifications in the HCEU partner countries and aims to answer the following key questions:

1) Where can the training programmes for qualified general nursing, assistant nursing as well as elderly care and assistant in elderly care be located within the different education systems?
2) What does the recognition praxis look like in the partner countries? This contains in detail:
    - What are the legal conditions?
    - What do the recognition steps/procedures look like and which recognition steps are similar in the partner countries?
    - What are the average costs of a recognition process?
    - Best practice example of a recognition process in Austria ("One-Stop")
    - What types of methods are being used to test and verify foreign qualifications?
    - What are the necessary qualifications and competencies of the assessors in the partner countries?

All information was received by desk research and a questionnaire filled by the project partners.

4.1 Background Information: Training Programmes and education systems in the partner countries

This chapter focuses on the professions nursing and elderly care and especially on

- qualified general nursing (registered nurses),
- assistant nursing,
- elderly care,
- assistant in elderly care.

Depending on the country there are much more different emphasis (job specialisations), but in the project we focus on the most prominent ones, i.e. the professions named are the most common ones in all project countries.

The chapter points out the position of the profession in the respective education system and links the profession with respect to the ISCED levels.

In order to facilitate a comparison between the different educational systems a uniform schematic representation of the system is used that has been developed by the European Commission.[16]

4.1.1 Nursing

Qualified General Nurse: In Germany, a qualified general nursing diploma can only be acquired from an officially recognised health care and vocational nursing school (post-secondary non-tertiary education). The training is finished after 3 years.

By now, there are two options to gain a nursing diploma in Austria. It is possible to receive the certificate from a university of applied science (BSc level, tertiary education) or a school for nurses in general care (post-secondary non-tertiary education)[17] (BMG 2016, p. 76).

In Austria, the highest official training level for registered nurses is at Bachelor´s level. However, it is possible to attend additional special education programs as „Advanced Nursing Management" or "Advanced Nursing Education" which are at Master´s level and are usually offered by technical collages.

In Poland, training is provided at university level only. A degree can be acquired at Bachelor ´s and Master´s level. Students pass a basic training (Bachelor) and can then specialize e.g. in nursing in geriatrics, long-term care or nursing for internal diseases (Master).

In Greece, the diploma for qualified nursing is at university level.

Several different nursing degrees exist in Hungary. However, qualified general nursing is located at university level (Bachelor and Master).

ISCED level[18]

In Germany, a qualified general nursing diploma is at ISCED **level 4**. In Greece and Poland qualified nursing is at ISCED **level 6** (Bachelor) and **7** (Master). In Austria, a diploma from a nursing school is located at **ISCED level 4**. A diploma gained from a University (Bachelor) is at **ISCED level 6.** Additional special education programmes are on **ISCED level 7** in Austria. In Hungary, the diploma from a University is at **ISCED level 6 and 7 (Bachelor and Master).**

Assistant Nursing:

- In Germany, a diploma issued by a health care and nursing school is required to work in the profession. Depending on the duration, (either 1 or 2 years) this training is located at secondary education (training lasting for 1 year) or post- secondary non-tertiary education (training lasts for 2 years).

[16] For more information see appendix 1
[17] However, the training program, offered by schools for nurses in general care, is going to expire by 2026.
[18] ISCED refers to the International Standard Classification of Education developed by the Unesco. In this chapter, we reference all national qualification to the ISCED classification.

- In Austria, a certificate for qualified healthcare assistants can either be issued by a nursing school or by a special training for assistant nurses, offered by hospitals or training centres. The training lasts for 1 year (1,600h). However, there exists a short training course for persons who have successfully completed studies of human medicine or dental medicine (680 hours).
- In Greece, a nursing diploma can be acquired through a professional lyceum (secondary education) that lasts 3 years. Based on this degree a diploma can be achieved which is at post-secondary non-tertiary education level and is issued by the Institute of Vocational Training (IEK). This program lasts for 1 or 2 years. Schools only recruit entrants who have successfully completed a general or vocational lyceum.
- In Hungary, the training is provided by TVET colleges and has a duration of 10 months.
- A training for assistant nursing does not exist in Poland.

ISCED level

Depending on the duration of the training (either one or two years) assistant nursing is at ISCED level 3 or 4 in Germany (secondary or post-secondary education).

In Austria, the training for assistant nursing is at ISCED level 3 (secondary education).

In Greece, the diploma, issued by a professional lyceum (secondary education) is at ISCED level 3. The training issued by a vocational training institute (IEK) (post-secondary education) is at ISCED level 4. In Hungary, the training is at ISCED level 5.

Thus, assistant nursing is located at secondary or post-secondary education in the participating countries while qualified nurses are most often trained at university level (tertiary education). Germany can be considered as an exception at this point.

4.1.2 Elderly Care

Elderly care sometimes is also called geriatric nurse. Elderly care is an independent profession in Germany, Austria and Poland but only in Germany it is a regulated one.

Elderly care, just like the training of qualified general nurses, is offered by officially recognised health care and vocational nursing schools (post- secondary education) in Germany and lasts 3 years.

In Poland, the training takes place at post-secondary schools. Depending on the type of programme (there are several ones) the training lasts 1 or 2 years. Precondition for the participation in this programmes is the completion of another post-secondary education programme.

In Austria, the specialization “service for the elderly persons” can either be selected within the training for social worker for the elderly or the training for qualified graduate social care worker for the elderly. This training either lasts two (2400h= social worker for the elderly) or three years (3600h= for qualified graduate social care worker for the elderly). In both cases the diploma is issued

by a school for social care workers (secondary or post-secondary education). No distinction is made between nursing and elderly care in Greece. Elderly care is located at TVET collages in Hungary. The training duration is usually 10 months (higher vocational education).

ISCED level

The ISCED level for elderly care varies between level 3 (training lasting 2 years in Austria) and level 4 (Poland, Germany and the training lasting 3 years in Austria). In Hungary, the training is at ISCED level 5.

Assistant in Elderly Care: The training for assistant in elderly care does only exist in Germany and Hungary[19]. In Germany, the diploma is issued by a health care and nursing school and takes 1 or 2 years (secondary education or post-secondary education). Moreover, it is a regulated profession. In Hungary, the profession is called 'social worker and nurse' which is a 10 month training at a TVET college (higher vocational education).

ISCED level

Depending on the duration, the diploma is at ISCED level 3 or 4 in Germany. In Hungary, the training is at ISCED level 5.

4.2 Recognition praxis and legal regulations in the partner countries

4.2.1 Legal Conditions

As a matter of principle, a distinction between a de-jure and de-facto recognition is made when it comes to the recognition of foreign degrees (Bohlinger/Beinke 2011). Within a de-jure recognition, the recognition is subject to legal regulations and takes effect in terms of regulated professions[20].

However, when it comes to the recognition of diplomas of regulated professions, the European recognition directive 2005/36/EC[21], which was adopted by the European Parliament and the Council in 2005 and amended by Directive 2013/55/EU[22], is in charge. Moreover, this directive entails an automatic recognition for selected professions. It means that there is no comparison of education and training, only of authenticity of the documents submitted. Among health care professions this applies to qualified nurses as well as to midwives with an EU/EEA qualification (BMBF 2012).

[19] A training in "home help" exists in Austria. This training module has a duration of 400h and is offered by several technical colleges, training centres and other institutions as "Caritas", "Johanniter", "Berufsförderinstitut or "Rotes Kreuz" (BMG 2016, p. 88). Due to its duration (400h) the training cannot be equated with the training for assistant nursing in Germany.

[20] In the EU, access to performing some professions is restricted to persons who have obtained particular trainings, i.e. it is illegal to work or even use the title of the profession if the worker is not registered with the competent authority ('regulatory body'). For more information see chapter 4.6 regulated professions.

[21] See: Official Journal of the European Union: http://eurlex.europa.eu/LEXUriServ/LexUriServ.do?uri=OJ:L:2005:255:0022:0142:EN:PDF

[22] Directive 2013/55/EU of the European Parliament and of the Council of 20 November 2013 amending Directive 2005/36/EC on the recognition of professional qualifications and Regulation (EU) No 1024/2012 on administrative cooperation through the Internal Market Information System.

For all professions that are non-regulated[23] a de-facto recognition applies which means that an individual assessment based on certificates, official documents, curricula vitae etc., of every application is necessary (equivalence procedure) (Bohlinger/Beinke 2011). This procedure also applies to regulated professions for which an automatic recognition does not apply according to the European recognition directive 2005/36/EC.

THE EUROPEAN RECOGNITION DIRECTIVE 2005/36/EC – 2013/55/EU
This European Directive came into force on 20 September 2005 and has been amended in 2013. It regulates access to so-called regulated professions and the recognition of work experience (European Parliament and the European Council 2013). It applies to all nationals of an EU / EEA Member State as well as Switzerland. Due to the harmonization of minimum occupational requirements at EU level, the directive envisages an automatic recognition, i.e. recognition without a case-by-case examination for so-called sectoral professions, i.e. Doctors, general nurses, dentists, veterinarians, midwives, pharmacists and architects. However, there must be evidence of specific formal qualifications (defined in the directive) to ensure that the completed training complies with the minimum requirements. Article 21- automatic recognition DIRECTIVE 2005/36/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL Each Member State shall recognise evidence of formal qualifications as doctor giving access to the professional activities of doctor with basic training and specialised doctor, as nurse responsible for general care, as dental practitioner, as specialised dental practitioner, as veterinary surgeon, as pharmacist and as architect, listed in Annex V, points 5.1.1, 5.1.2, 5.2.2, 5.3.2, 5.3.3, 5.4.2, 5.6.2 and 5.7.1 respectively, which satisfy the minimum training conditions referred to in Articles 24, 25, 31, 34, 35, 38, 44 and 46 respectively, and shall, for the purposes of access to and pursuit of the professional activities, give such evidence the same effect on its territory as the evidence of formal qualifications which it itself issues.

GERMANY

Qualified General Nursing: In Germany, the profession is regulated by the Ordinance on the Training and Examinations qualifying for Nursing Professions and the Act of the Profession in the Field of Nursing. Both are federal laws and consequently regulations at **national level**. The documents contain information on the recognition process in Germany and follow the European recognition Directive 2005/36/EG and Directive 2013/55/EU. Following these directives, applicants with EU/EWR degrees (received after 2005) obtain an automatic recognition.

[23] These professions usually do not require a certificate of professional qualifications but only a business licence.

Assistant Nursing: This is a regulated profession in most federal states (Laender) in Germany. Unlike qualified nursing it is not regulated at national but at **state level**. For this reason, different state-dependent laws[24] exist in terms of the regulation of the profession. Recognition matters are either regulated by these state-dependent laws[25] and/or by the respective vocational qualification assessment act.[26] Following Directive 2005/36/EG and Directive 2013/55/EU there is no automatic recognition for assistant nursing. In this case, an individual assessment based on certificates, official documents, curricula vitae etc. of every application is necessary (Bohlinger/Beinke 2011).

Elderly Care: Training in elderly care is regulated at **national level** by the care for the elderly act (AltPflG) of August 25th 2003 and the training and examination regulations for professions in care for the elderly of November 26th 2002. However, the final implementation of these federal laws is up to the states. Furthermore, additional regulations exist on the organisation, equipment and personnel in elderly care institutions in the individual federal states.

Recognition is regulated in the above-mentioned federal laws or the vocational qualification assessment act. In the case of elderly care there is no automatic recognition but an individual assessment, based on certificates, official documents, curricula vitae etc. of every application (Bohlinger/Beinke 2011).

Assistant in Elderly Care: This profession is regulated at state level (except for the two Laender Rhineland-Palatinate and Bavaria where it is not regulated). For this reason, different state-dependent laws[27] exist in terms of the regulation of this profession. Recognition matters are either regulated by these state-dependent laws[28] and/or by the respective vocational qualification assessment act.[29]

In the case of assistant in elderly care, there is no automatic recognition but an individual assessment, based on certificates, official documents, curricula vitae etc. of every application (Bohlinger/Beinke 2011).

AUSTRIA

Registered nursing is a profession regulated at national level by the following laws and/or ordinances:

- Health Care and Nursing Act, Federal Law Gazette I No. 108/1997

[24] See: Federal Labour Office: https://berufenet.arbeitsagentur.de/berufenet/faces/index?path=null/kurzbeschreibung/rechtlicheregelungen&dkz=30191&such=Gesundheits-+und+Krankenpflegehelfer%2Fin (only available in German)

[25] In the case of assistant nursing there is no state-dependent directive in Berlin, Lower Saxony, Rhineland-Palatinate and Schleswig-Holstein.

[26] See: Federal Institute for Vocational Training: https://www.anerkennung-in-deutschland.de/html/en/laender_regulations.php

[27] For detailed information see: Federal Labour Office: https://berufenet.arbeitsagentur.de/berufenet/faces/index;BERUFENETJSESSIONID=E_8JTEpNE9pfoaKWYtYH7CCpqa-cqAB84ehNjuvaCKUzk0JjGo0T!-1075518280?path=null/kurzbeschreibung/rechtlicheregelungen&dkz=9063&such=Altenpflegehelfer%2Fin (only available in German)

[28] In case of assistant in elderly care there is no state-dependent directive in Berlin, Lower Saxony and Saxony.

[29] For detailed information see: Federal Institute for Vocational Training: https://www.anerkennung-in-deutschland.de/html/en/laender_regulations.php

- Ordinance on Education and Training in Health Care and Nursing, Federal Law Gazette I No. 179/1999
- Ordinance on Part-time Education and training in Health Care and Nursing, Federal Law Gazette I No. 455/2006
- Ordinance on Education and Training in Health Care and Nursing at UASs, Federal Law Gazette I No. 2000/2008
- University of Applied Science Studies Act, Federal Law Gazette No. 3 340/1993

Each law and/or ordinance on healthcare professions also regulates the conditions for the recognition of diplomas/certificates from other countries. However, in the case of a registered nurse there is an automatic recognition according to the European recognition Directive 2005/36/EG and Directive 2013/55/EU.

Qualified healthcare assistant: This is a profession regulated at national level. The following national laws and ordinances regulate this profession:

- Ordinance on Education and Training in Assistant Nursing, Federal Law Gazette II No. 371/1999
- Federal Law Gazette I No. 108/1997 (Nursing Act)

There is no automatic recognition for a qualified healthcare assistant according to the European recognition Directive 2005/36/EG and Directive 2013/55/EU. Information on the recognition of foreign qualifications can be found in the documents mentioned above.

Elderly Care: This is not a regulated profession in Austria. Non-regulated professions usually do not require a certificate of professional qualification but only a business licence.

As described in chapter 3.1.2 “Elderly Care”, the specialization “service for the elderly persons” can be selected within a training for (qualified graduate) social care worker for the elderly. However, regulations on social care professions fall under the competence of the Laender. All related training programmes and professional profiles, however, were harmonised within the framework of an agreement on social care professions made between the Federal Government and the Laender pursuant to Art. 15a of the Bundes-Verfassungsgesetz (Federal Constitutional Law).

Other laws and ordinances that form the legal basis of this profession:

- Federal Law Gazette I No. 108/1997 (Nursing Act)
- Ordinance on Further Training in Nursing
- Federal Law Gazette I No. 281/2006
- other regional acts and ordinances

Recognition matters are regulated by regional social care regulations.

POLAND

Qualified nursing: This is a profession regulated at national level in Poland. The implementation of the European Recognition Directive 2005/36/EG is based on the nurse and midwifery professions Act of 15 July 2011 Art. 94[30] which is the legal basis of this profession. However, in the case of EU applicants an automatic recognition procedure applies.

> "Certificates, diplomas or other educational documents that confirm the completion of secondary education in the European Union, European Economic Area (EEA) or OECD member states as well as the right to apply for higher education programs in the country of issue shall be recognized in Poland by operation of law (i.e. automatically). The owners of such documents have a right to apply for studies at a Polish university or HE institution. Such regulation has been valid from 31 March 2015." (Ministerstwo Edukacji Narodowej 2015)
>
> "The recognition by operation of low (automatic recognition) means that the owners of certificates, diplomas or other documents that are recognized in Poland by operation of law may be filed directly with a university, HE institution or employer without being asked by a Polish authority for an additional recognition confirmation or proceedings." (Ministerstwo Edukacji Narodowej 2015)

Applicants from outside the EU have to go through a nostrification procedure which is carried out by a higher education institution and is based on the following regulations:

- Regulation of the Minister of Science and Higher Education of 19th August 2015 on the nostrification of higher education diplomas obtained abroad and on confirmation of completion higher education studies at a given level of education
- Regulation of the Minister of Science and Higher Education of 8th August, 2011 on the Nostrification of Academic Degrees and Degrees In the Area of Art Obtained Abroad. (Ministry of Science and Higher Education-Republic of Poland)

The right to practice is either issued by the Supreme Chamber of Nurses and Midwives in Warsaw or the respective regional council of nurses and midwives (depending on the applicant's place of residence), which is a legislation organ and responsible for recognition procedures in Poland.

Elderly Care: This is not a regulated profession in Poland. It is based on the following acts and regulations:

- the Act of 8 September 1991 on the education system (Journal of Laws of 2004, No. 256, item 2572;
- the Act of 19 August 2011 amending the Education System Act (Journal of Laws of 2011, No. 205, item 1206)
- MEN Regulation of 23 December 2011 on the classification of professions in vocational education (Official Journal from 2012, item 7);

[30] For more information see: International Labour Organisation (ILO): http://www.ilo.org/dyn/natlex/natlex4.detail?p_lang=en&p_isn=89523&p_country=POL&p_count=1462

- Regulation of the Minister of Education of 7 February 2012 on the core curriculum for vocational training (Official Journal from 2012, item 184);
- the regulation of 7 February 2012 on the school curricula in public schools (Official Journal from 2012, item 204);
- MEN Regulation of 15 December 2012 on practical vocational training (DU No. 244, item 1626);
- Regulation of the Minister of Education dated 30 April 2007 on the conditions and manner of assessing, classifying and promoting pupils and students and carrying out examinations and examinations in public schools (Journal of Laws No. 83, item 562) (Ministerstwo Edukacji Narodowej 2015).

The Polish act on education system sets up the general rules of the recognition of foreign school certificates, diplomas and other educational documents.

The body competent with respect to the proceedings for the recognition of a school certificate or other document issued abroad is the **education superintendent** having jurisdiction:

- over the place of residence of the applicant or
- over the registered office of the institution to which the applicant intends to submit the application or other document issued abroad (if the applicant does not have a place of residence within the territory of the Republic of Poland). (Ministerstwo Edukacji Narodowej 2015)

Greece

Qualified nursing: This is a profession regulated at national level in Greece. The implementation of the European Recognition Directive 2005/36/EG is based on national regulations. However, in case of EU applicants an automatic recognition procedure applies.

Assistant nursing: Working as assistant nurse prerequisites a work permission. However, unlike qualified nursing an automatic recognition doesn´t apply according to the European Recognition Directive 2005/36/EG. There is no specific law for the recognition of assistant nursing in place but uniform recognition procedures exits in terms of higher education and secondary education degrees (for more information see chapter 3.2.2)

In terms of higher education certificates the Hellenic Naric-National Academic Recognition Information Center (DOATAP) which is supervised by the Hellenic Ministry of Education is the responsible body involved in the recognition procedure. For the recognition of secondary level certificates the National Organisation for the certification of qualifications and vocational guidance (EOPPEP) is in charge. EOPPEP operates under the supervision of the Ministry of Education & Religious Affairs.

Hungary

Qualified nursing: This is a profession regulated at national level in Hungary and an automatic recognition procedure applies according to the European Recognition Directive 2005/36/EG. The implementation of this Directive is based on the following degrees:

- Ministerial Degree 4 of 2008 (4/2008/EüM)
- Ministerial Degree 30 of 208 (30/2008/EüM)

ENKK (Health Registration and Training Center), which is a central executive body with a national scope, takes part in the recognition process of all healthcare qualifications falling under community law. The recognition body is monitored by the responsible ministry (since 2017 Ministry of Human Resources).

4.3 Recognition procedures in the project countries

Germany

The responsibility for the recognition process lies with the competent authority in the respective federal state (Laender). Examples are:

- Kommunaler Sozialverband Sachsen (KSV), Fachbereich I (Saxony)
- Landesamt für Gesundheit und Soziales Berlin (Berlin)
- Regierung von Oberfranken (Bavaria)
- Regierungspräsidium Stuttgart - Landesprüfungsamt für Medizin und Pharmazie und Approbationswesen (Baden-Württemberg)
- Aufsichts- und Dienstleistungsdirektion (Standort Koblenz) (Rhineland-Palatina)
- Landesverwaltungsamt Sachsen-Anhalt - Landesprüfungsamt für Gesundheitsberufe (Halle/Saale) (Saxony-Anhalt)
- Landesprüfungsamt für Medizin, Psychotherapie und Pharmazie NRW (LPA) bei der Bezirksregierung Düsseldorf (North Rhine-Westphalia)

Recognition of regulated professions

(1a) Procedure for Assistant Nursing, Elderly Care, Assistant in Elderly Care (equivalence procedure)

Details of the procedure differ according to the specialist laws of the states. The states are currently revising the regulations on recognition in their specialist laws.

Example: recognition in North Rhine-Westphalia (assistant in elderly care)

The procedure compares foreign vocational qualifications with German reference qualifications. The competent authorities consider whether there are so-called 'substantial differences' between the foreign vocational qualifications and German qualifications. Vocational experience gained in Germany or abroad may also be taken into consideration in addition to formal training. As a rule, the procedure is subject to a fee.

Possible results of the recognition procedure:

(1)If the review is positive, the applicant receives a certificate of equivalence within the framework of the authorization to pursue a regulated profession. The applicant accords the same legal status as people with a corresponding German vocational qualification.

(2)Should there be substantial differences between the applicant qualifications and the German reference qualifications, the applicant has the opportunity to take part in a so-called 'adaptation measure' (additional training or test) to achieve equivalence. The adaptation measures may vary according to the individual specialist laws. The respective competent authorities can provide information on the exact modalities.

(3)If the equivalence of the qualification cannot be identified, the request will be rejected.

Documents needed:

- Fully completed application form
- Personal date sheet
- (proof of name change)
- Proof of identity (identity card or passport) in the form on a certified copy
- School report together with a German translation (officially certified copy)
- Proof of training qualifications together with a German translation (officially certified copy)
- Proof of your relevant work experience together with a German translation (officially certified copy)
- Confirmation on the primary residence in North Rhine-Westphalia by the local council or a proof on the willingness to work in North Rhine-Westphalia (proof of an application or proof of contact with potential employers) Not necessary for applicants from EU/EWR member states)
- Other proof of skills (such as continuing vocational education and training

The required documents depend on the law of the respective state (https://www.anerkennung-in-deutschland.de/tools/berater/en/berater/result)

Additional requirements:

- personal suitability
- medical suitability
- sufficient knowledge of the German language (level B2 of the common European framework for languages)

Duration of the procedure

Applicants receive a written confirmation of receipt by the competent body within one month. Once all documents have been submitted the procedure will take a maximum of 3 months. The procedure can only be ex-tended in justified cases. The duration of the procedure differs between the States.

In case of recognition, applicants receive the same diploma as their colleges that have conduct the training in Germany.

Costs of a recognition procedure for Assistant Nursing, Elderly Care, Assistant in Elderly Care in Germany[31]

The procedure costs vary and depend on the individual case and the legal provisions in the respective Land. The relevant approbation authority determines the exact costs on an individual basis and will inform the applicant about this. Additional costs may also be incurred (e.g. for translations, certification or compensation measures). The following table provides examples from five Laender:

Table 10: Recognition costs in five German Laender.

Saarland	Baden-Württemberg	Bavaria	Schleswig-Holstein	North Rhine-Westphalia
The procedure is free of charge but a document fee of 60€ will be invoiced.	The procedure is subject to a fee (30 € to 500 €) Usually, the examination of the professional equivalence and the permit certificate cost between 50 and 200€ depending on the administrative expenses.	Costs for the recognition procedure amount to 40€. In case the request is rejected the procedure costs 60€.	The costs for the procedure differ between 40 and 225€ depending on the expense.	Costs for the procedure amount to 350€. Additional costs: – 60€ in terms of the decision on the license for the professional title – 80€ if a language test is required – other costs e.g. for a practical tes

[31] For an overview on the cost of a recognition process in all project countries, please see annex 2

(1b) Procedure for qualified nursing (automatic recognition)[32]

Recognition procedure:

A procedure of automatic recognition in accordance with EU Directive 2005/36/EC will normally apply. The applicant's qualification will be recognised without an individual equivalence assessment if the qualification certificate was issued after the EU accession of the state in which training took place.

Qualifications obtained prior to this cut-off date will be automatically recognised if the applicant submits certification from the relevant health authorities in the country in which the training was completed that the train Qualifications obtained prior to this cut-off date will be automatically recognised if the applicant submits certification from the relevant health authorities in the country in which the training was completed that the training completed prior to accession is in compliance with the minimum standards set out in EU Directive 2005/36/EC.

Documents needed:

The applicant has to ask the corresponding competent authority which documents have to be handed in and when. Important documents are often:

- CV in tabular form
- copy of qualifications and, if necessary, further certificates of competence
- certificates regarding relevant professional experience
- medical certificate confirming fitness to practice the profession
- statement of whether criminal proceedings are pending

Should these documents not be in German, they are typically accompanied by certified translations. The applicant can present simple copies of his documents in cases where certified copies are not specifically required. The competent authorities will provide details.

Further requirements:

Knowledge of German is mandatory. In general, the applicant must have record of proficiency, at least language level B2 under the Common European Framework of Reference for Languages. In some cases, the applicant must also, or alternatively, demonstrate its specialist language knowledge. The competent authority will provide the details.

Austria

The responsibility in terms of the recognition process for the regulated professions of a registered nurse and a qualified healthcare assistant lies with the Federal Ministry of Health and Women´s Affairs.

[32] For more information see: Federal Ministry for Education and Research: https://www.anerkennung-in-deutschland.de/tools/berater/de/berater/result

The Recognition of diplomas or certificates of social professions (social worker for elderly care and qualified graduated social care worker for the elderly) lies in the responsibility of the relevant competent authority.

Recognition procedure in terms of non-regulated professions

(1) Procedure for social worker for the elderly and qualified graduated social care worker for the elderly):

Example: Recognition profess for social worker for the elderly[33]

This profession is not subject to legal regulations in Austria. This means that a recognition is not necessary in order to work in that profession. With a work permit it is possible to work as an employee or be self-employed.

However, as a consequence the profession falls under the general recognition system in Austria. That means the procedure compares the foreign qualifications with the Austrian reference qualifications. In case of 'substantial differences' the applicant has the possibility to attend compensation measures in order to receive the desired national qualification.

For the assessment of university degrees: Application to the Federal Ministry of science, Research and Economy

Documents needed:

- Graduation Diploma/Degree(s) (academic degrees) in original text with full diplomatic legalization
- Certified German or English translation (of a sworn translator) of Diploma/Degree(s)
- Transcript of Records and if available Diploma Supplement belonging to the Graduation Diploma/Degree(s)
- Confirmation of an Austrian residence (proof of residency by ZMR-print out)

Optional documents:

- Certificate of Change of Name (e.g. marriage certificate)
- Passport or Identity Card
- Secondary School Leaving Certificate
- University Entrance Examination

Costs:

- €150 for the assessment of up to two qualifications per application
- €200 for the assessment of three or more qualifications per application

For the assessment of other certificates: Application to the Federal Ministry of Education

[33] For more information see: Berufsanerkennung in Österreich: http://www.berufsanerkennung.at/en/no_cache/anerkennungsabc/

Documents needed:

- Certificate of registration or proof of Austrian citizenship
- Original graduation certificate (degree or diploma) and a translation by a certified public translator officially registered in Austria
- Original college annual report, index, or registration sheet for the diploma to be assessed with a translation into German
- Documentation related to any change in names (e.g. marriage certificate)
- Any potential passport under the Geneva Convention

Costs: Free of charge

Duration of both procedures: 3 months from receipt of complete documentation in accordance with the Austrian Recognition and Evaluation Act (AuBG).

Recognition procedure in terms of regulated professions

(2a) Procedure for qualified healthcare assistants (regulated but no automatic recognition according to the European recognition Directive 2005/36/EG)[34]

Recognition procedure:

This profession is subject to legal regulations in Austria. However, this profession must have officially recognised before working. In accordance to Art. 10ff of Directive 2005/36/EC the profession of qualified healthcare assistant falls under the general recognition system in Austria. That means the procedure compares the foreign qualifications with the Austrian reference qualifications (no automatic recognition). In case of 'substantial differences' the applicant has the possibility to attend compensation measures in order to receive the desired national qualification. Application to the Federal Ministry of Health and Women´s Affairs

Documents needed:

- a signed request outlining the intended profession that includes a mailing address
- Proof of residence or a process agent (signed letter of authorisation) in Austria for the purposes of notification
- evidence of qualifications, examination results or another form of certification of professional competence demonstrating the successful completion of state-recognised training in care assistance or specialised care assistance in an EU member state, an EEA member state or Switzerland that authorises professional practice in the country of origin
- curriculum of the nursing training (itemised according to theory and practice, with the

[34] For more information see: Berufsanerkennung in Österreich: http://www.berufsanerkennung.at/en/no_cache/anerkennungsabc/

provision of hours and course units)

- confirmation from the relevant authority in the country of origin that the applicant has not been temporarily or permanently barred from professional practice. This should be no older than 3 months (the land of origin refers to the country in which the applicant last worked in this professional capacity)
- certificates of additional training and professional development
- evidence of professional experience (references)
- evidence of citizenship via the provision of a copy of a passport or government-issued identification card
- criminal record certificate (certificate of good character) from the country of origin (for Croatia and Slovenia: Ministry of Justice only). Submit the original certificate, which may be no older than 3 months (an Austrian criminal record certificate will be accepted only in conjunction with information from the criminal record files of the country of origin)
- medical certificate signed by a doctor attesting to the applicant's fitness to work. Please present an original document that is no older than three months (from a general practitioner/family doctor or a specialist in internal medicine)
- appropriate evidence in case of change of name (marriage certificate, divorce decree, etc.)

Further information:

Only original or certified or notarised copies of documents along with – in the case of original documents not in German – certified translations by a court-sworn translator may be submitted. Translations from Hungary may be certified solely by the Országos Fordító és Forditáshitelesítö Iroda (OFFI). Uncertified photocopies or documents without accompanying translation will not be accepted or recognised. Any original documents submitted will be promptly returned after review. Following submission, it is the applicant's responsibility to notify the Ministry of Health and Women's Affairs of any changes in address or name, as well as changes related to the process agent.

Duration of the procedure: 4 month following the submission of the complete set of documents

Costs: administrative fees: €250. - to €350.-

(2b) Procedure for qualified nursing (automatic recognition)[35]

Recognition procedure:

This profession is subject to legal regulations in Austria and a procedure of automatic recognition in accordance with EU Directive 2005/36/EC will normally apply. The applicant's qualification will be recognised without an individual equivalence assessment. Application to the Federal Ministry of Health and Women´s Affairs.

[35] For more information see: Berufsanerkennung in Österreich: http://www.berufsanerkennung.at/en/no_cache/anerkennungsabc/

Documents needed:

For training completed in accordance with the minimum requirements of Article 31 of Directive 2005/36/EC:

- a signed request outlining the intended profession that includes a mailing address
- Proof of residence or a process agent (signed letter of authorisation) in Austria for the purposes of notification
- Diploma in accordance with Article 31 of Directive 2005/36 / EC, which entitles the holder to practice in general nursing in the country of origin
- Confirmation by the competent authority that the training is in line with Article 31 of Directive 2005/36 / EC
- confirmation from the relevant authority in the country of origin that the applicant has not been temporarily or permanently barred from professional practice. This should be no older than 3 months (the land of origin refers to the country in which the applicant last worked in this professional capacity)
- evidence of citizenship via the provision of a copy of a passport or government-issued identification card
- criminal record certificate (certificate of good character) from the country of origin (for Croatia and Slovenia: Ministry of Justice only). Submit the original certificate, which may be no older than 3 months (an Austrian criminal record certificate will be accepted only in conjunction with information from the criminal record files of the country of origin)
- from the criminal record files of the country of origin)
- medical certificate signed by a doctor attesting to the applicant's fitness to work. Please present an original document that is no older than three months (from a general practitioner/family doctor or a specialist in internal medicine)
- appropriate evidence in case of change of name (marriage certificate, divorce decree, etc.)

Costs: Administrative fees: €250.- to €350.-

Duration: 3 months following submission of the complete set of documents. For the profession of registered nurse, there is the option for an "accelerated recognition process (one-stop).[36]

[36] For more information see chapter 3.2.3 Best practice example – Austria

Poland: Qualified nursing (automatic recognition)[37]

Documents recognised automatically in Poland:

1.Each certificate, diploma or another document issued within the education system of one of EU, EEA or OECD member states that entitles to apply for admission to a higher education program in the state of issuance. This rule concerns the following states:

Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Mexico, Netherlands, New Zealand, Norway, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, USA.

2.IB (International Baccalaureate) diplomas issued by the International Baccalaureate Organization in Geneva.

3.EB (European Baccalaureate) diplomas issued by the European Schools in accordance with the Convention defining the Statute of the European Schools drawn up in Luxembourg on June 21, 1994. (Dz. U. [the Journal of Laws] for 2005, No. 3, item 10).

4.Certificates, diplomas and other documents issued abroad by schools or educational institutions in accordance with the principles laid down in bilateral agreements on mutual diploma recognition

If a certificate or other document entitles to apply for admission only to specific higher education programs in the state of issuance, it shall be recognized as a document giving a right to apply for admission to such higher education programs in Poland which are identical or similar in terms of curriculum.

Poland: Elderly Care[38]

The Polish act on education system sets up the general rules of the recognition of foreign school certificates, diplomas and other educational documents.

The recognition procedure is carried out by education superintendent that may:

- recognize a foreign school certificate or other document according to an administrative decision:
  - The document needs to confirm the completion of primary, lower secondary, basic vocational or upper secondary education and
  - the entitlement to continue one's education, including the entitlement to apply for

[37] For more information see: Ministerstwo Edukacji Narodowej: https://en.men.gov.pl/2015/10/30/recognition-of-foreign-school-certificates-and-diplomas-in-poland/

[38] For more information see: Ministerstwo Edukacji Narodowej: https://en.men.gov.pl/2015/10/30/recognition-of-foreign-school-certificates-and-diplomas-in-poland/

admission to a higher education program, taking into account the scope of rights granted in the state of issuance of the certificate or other document.

Foreign school certificates or documents may be recognized in Poland only if they are recognized by the state within the territory of which or in the education system of which such a school operates. Documents required in the recognition procedure:

1.Application for recognition

2.Certificate – with apostille or legalized:

- original of the certificate or its duplicate or notarized copy with apostille placed on or attached to the document, if the certificate was issued by a state which is a party to the Hague Convention or
- legalised original of the certificate or its duplicate – if the certificate was issued by a state which is not a party to the Hague Convention (the Convention Abolishing the Requirement of Legalisation for Foreign Public Documents, drawn up in the Hague on October 5, 1961).

3. Documents to be appended if the certificate does not contain information about the course of education:

- a list of grades received in the course of examinations required for completing the school or educational institution or the given stage of the educational program;
- a list of subjects and other classes completed in the course of the given stage of education, along with the grades received;
- information on the completed curriculum pertaining to the contents thereof, the planned duration of tuition as well as the grade scale applied;
- information on the conferred entitlements to continue education at an appropriate level in the state in the education system of which the given certificate was issued, including the entitlements to apply for admission to a higher education program as well as on the scope of the entitlements in question.

4.Documents should be issued or confirmed by the school or educational institution which issued the certificate or by educational authorities of the state on whose territory or in whose educational system the certificate was issued.

5. The documents' translation in Polish, attached to the application, shall be done or confirmed by:

- a person entered on the list of sworn translators by the Minister of Justice of the Republic of Poland, or
- a person registered as a sworn translator in any EU, OECD or EEA member state, or
- the consul of the Republic of Poland having jurisdiction with respect to the state in the territory of which, or in the education system of which, the given certificate was issued, or
- a diplomatic representative or consular office of the state in the territory of which, or in

the education system of which, the given certificate was issued, accredited in the Republic of Poland.

- If the translation of the documents into Polish causes substantial difficulties, the education superintendent may agree for the applicant to present a translation performed by another entity, provided that the credibility of such entity is beyond reproach.

6. The decision may be appealed against to the Minister of National Education through the education superintendent within 14 days from receipt.

7. In the proceedings the provisions of the Act of 14 June 1960 – Code of Administrative Procedure (Dz. U. [the Journal of Laws] 2014, Item 283, as amended) have to be applied.

Greece

Recognition procedure in terms of **higher education qualifications:** The applicant has to

- submit an application form
- submit a certified copy of the high school diploma
- submit an official transcript of records
- certificate of the location of studies
- a syllabus if the institution is not accredited by DOATAP
- transfer the relevant fee

The documents are checked by the relevant DOATAP body. A fee of 230€ for undergraduate studies and 184€ for postgraduate studies has to be paid by the applicant.

Recognition procedure in terms of **secondary level qualifications:** In terms of secondary level qualifications a uniform recognition procedure applies which is conducted by EOPPEP via an experts´ committee (equivalence committee). This committee examines the foreign qualification and compares it to the one awarded by the Greek education system. The whole procedure is described in a Ministerial Decree [39] and last around 2 months. The applicant has to:

- fill in an application form and a questionnaire
- submit a certified photocopy of his/her certification as well as a certified copy of the translation
- submit a certified translation of the study program
- submit a certificate of the high school diploma
- submit a residence permit for non EU citizens

[39] Official Gazette no. 1926/B/17.07.2014

Hungary

The recognition of foreign qualifications in Hungary is based on processes set out by the legislation. These processes have been implemented in line with EU requirements.

Automatic recognition:

In terms of qualified nursing an automatic recognition applies. The certificate is recognised automatically if the relevant training started after the reference date set out in the Ministerial Decree 4 of 2008. Moreover, the training title must be in line with the title defined in the Directive 2005/36/EC. If this is the case and all documents defined in the legislation have been submitted the ENKK issues a certificate which recognises the qualification as equivalent. If both requirements are not met an accompanying certificate issued by the competent body of the relevant member state is necessary in order to proof conformity.

General System:

In case an automatic recognition does not apply (this is the case for e.g. assistant nursing, elderly care, social worker and nurse) the recognition process is carried out within the so called "general system". In this case the EMKK decides about the recognition based on the submitted documents (including among others a curriculum with detailed information on the content and duration of the training). Moreover, an expert will be involved in the procedure, which is in most cases, a person out of a relevant training institution. In case the gap between the training obtained abroad and the Hungarian qualification is considerable, the ENKK might require the completion of a compensation measure. This could be an adaptation period of 6 month up to a maximum of 3 years or the completion of an aptitude test including different topics proposed by the expert.

The recognition procedure can take 3 to 6 months without any recognition gap (automatic recognition) or up to 3 years when the required certificate is on a much higher level than the qualification acquired abroad.

The calculation of the administrative service fee is set out in Article 64 of Act C of 2001. In 2016 the fee of the recognition process was 83250 HUF (~ 265€). The fee has to be paid by the applicant.

4.4 Best practice example: Austria

In Austria, a shortened recognition procedure exists for some healthcare professions (see below). This procedure applies to applicants who completed their training successfully in one of the EU member states, EEA member states[40] or in the Swiss Confederation. Recognition within one hour is

[40] EU member states: Belgium, Bulgaria, Denmark, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Hungary, United Kingdom, Cyprus
EEA member states: Liechtenstein, Iceland, Norway

possible if the applicant submits all documents needed[41] and has a diploma according to Directive 2005/36/EC and Directive 2013/55/EU. Applicants can apply for this abridged procedure in the Federal Ministry for Health and Women. All documents – including diplomas, certificates and other evidence of qualification – must be submitted in original form. Documents in any other than the official language (German or English) have to be translated by a recognised interpreter.

Table 11: Health care professions registered for one-stop recognition in Austria

Occupation: designation in Austria:	Country where the training has been completed:
- qualified nursing - physiotherapy service - ergotherapy service - radiological technical service - diet- nutrition and medical advisory service - care for children and youth - qualified health care assistant - massage therapist - paramedic or emergency paramedic - special tasks for higher service in nursing: intensive care - special tasks for higher service in nursing : anaesthesia care - special tasks for higher service in nursing : intensive care and anaesthesia care - special tasks for higher service in nursing : care in the surgery area - special tasks for higher service in nursing : care for kidney replacement therapy - surgery assistant	Germany
- qualified nursing	Poland
- qualified nursing - medical masseur	Hungary

For more information on training demands and the proof of qualifications and certificates see:
Ministry of Health and Woman´s Affairs:
http://www.bmgf.gv.at/cms/home/attachments/6/5/9/CH1168/CMS1372319955210/information_ueber_verkuerztes_anerkennungsverfahren.pdf

4.5 Recognition methods, costs and assessors' qualifications

The document analysis is the method most frequently used to verify foreign qualification in all countries. Interviews and work process simulations are hardly applied.

[41] see appendix 3 for a detailed checklist and Ministry of Health and Woman´s Affairs: http://www.bmgf.gv.at/cms/home/attachments/6/5/9/CH1168/CMS1372319955210/information_ueber_verkuerztes_anerkennungsverfahren.pdf for a detailed list of documents needed depending on the country where the training was completed

Table 12: Recognition and validation methods in the project partner countries

Austria	Poland	Greece	Hungary	Germany
- document analysis - if necessary: expert opinion/expert interview or work process simulation on the bases of the document analysis	- the basis for the verification of a qualifications is a document analysis	- document analysis both for higher education degrees and secondary level qualifications	- in case a qualification cannot be recognized automatically the assessment is based on a mandatory submitted curriculum and optionally submitted documents that can justify work experience and professional training - In some cases a personal interview can be conducted	- document analysis

Table 13: Costs and assessors' qualifications

	Austria	Germany	Hungary	Poland	Greece
Costs	…for the applicant: 250-500€ + translation costs …for the competent authorities are not recorded	… differ between the states	… amount to 83250 HUF (265€)	… amount to 3000-4000 zl (680€-917€) for nurses ….are established by the rector of the university No data for elderly care	… for the applicant: - 230,40 € for undergraduate studies - 184,00 for postgraduate studies - For secondary diplomas the applicant need to pay 10,00€ for the translation and authorisation of his certificate
Financing party	Cost are partly payed by the state and the individual	applicant	applicant	applicant	Costs are partly payed by the state and the individual
Assessors' qualifications and competences	- has to know the legal regulations and possess medical/nursing knowledge	- documents are reviewed in terms of legal requirements - the recognition process is conducted by servants and/or clerks	DOATAP: higher civil servants and universities and TEI teaching staff - assessors possess all relevant degrees (higher education degree, postgraduate studies, relevant experiences)	- university committee of teachers' and academic nurses - committee's opinion is forwarded to the committee in the regional council of nurses and midwives	- EOPPEP: the recognition body consists of members with relevant degrees, experiences and knowledge of all relevant regulations. - assessor shall have profound knowledge of relevant national and EU legislations, the contents of the healthcare qualification as well as of the health registry system

Appendix: Steps of a recognition process similar in all participating countries (equivalence procedure)

(1) **Application by the individual** at the **competent recognition authority** (applicant must submit different documents)

Competent authorities: Universities (Poland), reginal councils (Poland), ENKK central government bodies (Hungary), Ministry of Health (Austria), competent bodies of the state (Germany + Austria), DOATAP national academic recognition centres (Greece), EOPPEP National Organisation for certification of the Qualifications and Vocational Guidance (Greece)

Documents:
e.g. Germany: differs between the states but in general: Fully completed application form, personal data sheet + current residence (in German language), proof of identity (officially certified copy), School report together with a German translation, training certificates acquired abroad together with a German translation (officially certified copy); prove of relevant working experience together with a German translation (officially certified copy); a statement weather, at what responsible authority and with what result a request was made before (originals or certified copies + translations in German)

(2) **Confirmation of Receipt**

(3) **Transfer** of the according **fee**

Either payed by the applicant or partly payed by the individual and the state.

Administrative procedures by the competent authority according to relevant laws (document check according to the international standards, relevant federal laws and degrees)

(4) **recognition** or **recognition with compensation measures** or **rejection of application**

Compensation: e.g. compensation test to prove an equivalent level of training:
- Completion of an adaption period of 6 months up to 3 years
- Completion of an aptitude test

Appendix: Checklist for a one-stop recognition procedure in Austria

1	Signed request including information on the residential address and the social security number (if available).	☐
2	Medical certificate on the individual fitness in order to exercise of the profession. The certificate must not be older than three months (issued by a general practitioner, family doctor or doctor for internal medicine)	☐
3	Criminal record certificate issued by the country of origin (attention: Croatia and Slovenia: only Ministry of Justice) which is not older than three months. An Austrian criminal record only is recognized in connection with information extracted from the criminal register of the country of origin.	☐
4	Proof of nationality by presenting a passport, identity card or proof of citizenship.	☐
5	In the event of a change of name a corresponding proof is needed (marriage certificate, divorce sentence, etc.).	☐
6	Cash at the rate of € 250, - or debit card (no credit cards) in order to pay fees and administrative charges.	☐
7	If, at the time of application to the BMGF, your education has been completed for more than three months, you must obtain a certificate from the competent authority of your country of origin indicating that the professional activity has not been temporarily or definitively prohibited (the country of origin is the state where the profession was last exercised.	☐
8	If you cannot come personally but send a representative, he/she needs a personally signed authorization for the admission procedure. Supplemental fees accrue for this procedure (attention: the request - point 1 - must be signed personally).	☐
9	Attachment: proof of qualifications and other certificates	☐

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Chapter 5: On the linkage between qualifications, learning outcomes and curriculum development

Chapter author: Sandra Bohlinger

Referring to the definition of qualifications provided in various European documents, a qualification is 'the formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given standards' (Council of the European Union 2012, p. 5; see also chapters 2 and 4). However, this definition does neither explain ***how*** a competent body (e.g. a national ministry, a training institution, a professional association etc.) determines the content, scope and value of a qualification nor who it links the qualification and its 'value' with other qualifications and their value (Bohlinger 2013).

In general, developing qualifications and determining their 'value' is at the interest of national, regional, labour market and educational stakeholders. Their activities aim at ensuring that individuals are well prepared for meeting labour market needs and for adapting to changing economic and societal conditions. Moreover, qualifications are not only meant to provide individuals with employability and serve labour market needs but also to foster an individual's personality to participate in society and to enrich their personality development.

Against this background, this chapter provides an overview of the theoretical framework for developing outcomes-oriented curricula and professional qualifications and starts with the linkage between learning outcomes and qualifications.

5.1 Mapping the terrain: The link between learning outcomes and qualifications

Comparing and interpreting qualifications across countries has been one of the key concerns of European education and training policy since the Treaty of Rome was signed. Qualifications that are comparable across national borders enable a better match between the supply and demand for skills, foster labour market mobility and strengthen countries' competitiveness. Various policies aimed at improving the governance of (vocational) education and training systems and at supporting the overarching aim to promote European integration. Within this context, the Lisbon agenda (2010 and 2020), the Bologna process and the Bruges-Copenhagen process are three of the most important milestones. Although these were by no means the beginning of the idea of realising the transparency of qualifications, they have provided a strong basis for the increasing importance of qualifications frameworks and the focus on learning outcomes.

A number of anticipated benefits can be seen as main rationales for the shift to learning outcomes and for developing and implementing instruments that foster their transparency and (mutual) recognition such as validation guidelines or qualifications frameworks: the modernisation of education and training systems and programmes, the promotion of labour market mobility and

transnational co-operation and the promotion of all forms of lifelong learning (Bjørnåvold and Coles 2008; Bohlinger 2008; Young 2003; 2005).

As unification of qualification pathways and curricula is out of the scope of European (education) policy focussing on learning outcomes (rather than focussing on input-oriented curricula) provides an opportunity

- to focus on what is actually relevant for work processes and working tasks
- to focus on what a learner is actually able and capable to do rather than what learners (should) know at the end of a learning process
- to compare learning results and individual performances rather than focussing on standardised learning pathways and programmes.

Comparing the 'logic' of input-oriented versus outcomes-oriented qualifications and curricula, a number of differences can be identified which explain why the shift to learning outcomes can results in numerous challenges. The following table provides an overview of the two different logics.

Table 14: Characteristics of input-oriented curricula and outcomes-oriented curricula (Source: COTVET 2009)

	Input-oriented curricula	Outcomes-oriented curricula
1	Passive learners	Active learners
2	Exam-driven	Learners are assessed on an ongoing basis
3	Rote learning	Critical thinking, reasoning, reflection and action
4	Syllabus is content-based and broken down into subjects	An integration of knowledge, skills and attitude/value, learning is relevant and connected to real-life situations/real work situations
5	Textbook/worksheet bound and educator-centred	Learning materials/training packages, learner-centred; educator/trainer is a facilitator
6	Educator/trainer uses "deductive" approach in teaching	Facilitator uses "inductive" approach in facilitating
7	Sees syllabus as rigid and nonnegotiable	Learning programmes seen as guide that allow facilitators to be innovative and creative in designing programme
8	Educators responsible for learning; motivation dependent on the personality of educator	Learners take responsibility for their learning: learners are motivated by constant feedback and affirmation of their worth
9	Emphasis on what the educator hopes to achieve	Emphasis on outcomes (what the learner becomes and understands)
10	Content organised according to rigid time-frames	Flexible time-frames allow the learner to work at their own pace
11	Curriculum development process is not open to public comment	Comment and input from the wider community / stakeholders is encouraged

Against this background, the shift to learning outcomes in not a shift away from traditional learning and training pathways and programmes but rather an attempt to open up learning pathways and to shift the focus from what learners should know towards what they actually know and are able to do. This, in turns, can be a massive challenge for qualifications and curriculum development since it demands a close linkage with work process knowledge, i.e.

'an employee's knowledge of the work process in the enterprise as a whole, including the labour process, the production process and the way in which the various departments and functions are inter-related' (Boreham 2002: 232).

5.2 Developing curricula and qualifications

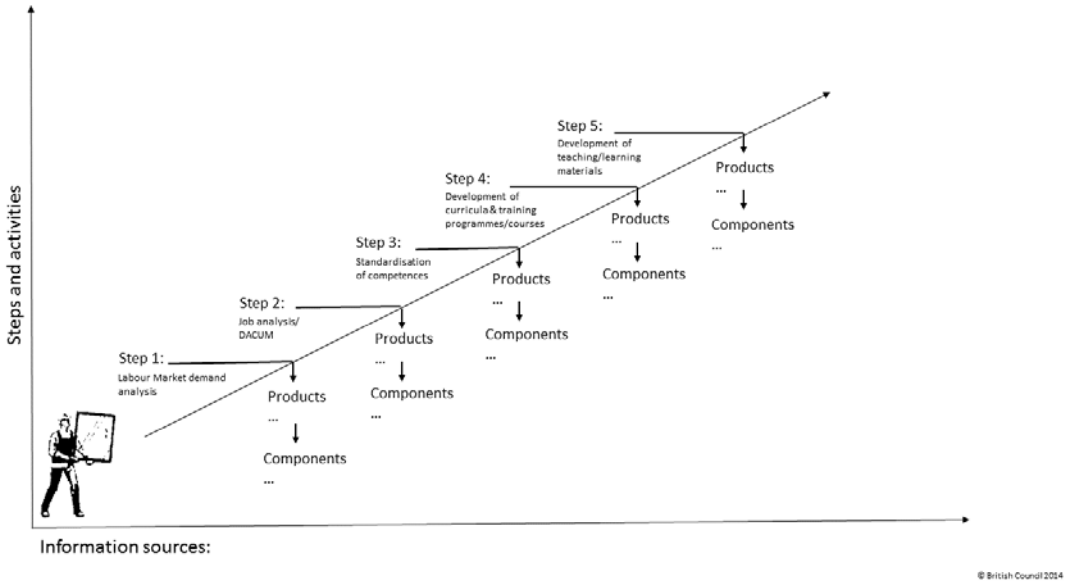
Traditionally, curriculum development (in higher education) was based on academic disciplines' representations and understandings of a society. It aimed at providing learners with theoretical knowledge building the fundament of any kind of applied knowledge though it may not be (immediately) applicable. During the past years, numerous publications have addressed the shift to learning outcomes-based curricula aiming at equipping learners with work-ready skills that are authentic and relevant for the labour market (e.g. Bohlinger 2012; Cedefop 2009; 2016; Lassnig 2012; Ure 2015), some of them pointing at the risk of massively reducing relevant knowledge in favour of easy-at-hand and labour-market-ready skills (e.g. Wheelahan 2010, p. 2ff.; Young 2008).

While a strict division between theoretical/academic versus practical/vocational curricula and qualifications is dominating in many countries where vocational education has a low reputation, countries with highly esteemed and strong apprenticeship structures (e.g. Austria, Denmark, Germany, Switzerland) have a long tradition with a focus on work process knowledge which is a building block for developing vocational qualifications and curricula. In general, developing qualifications and curricula that have a clear labour market orientation starts with gathering labour market data to identify skills shortages and work requirements, ideally in dialogue with industry, social partners and all those stakeholders that are relevant for the respective sector or qualification (Misko 2015, p. 19). It then presupposes determining the key features and characteristics of a qualification, i.e. most of all

- its labour market relevance and (occupational/educational) credentials;
- its content and structure, e.g. in terms of learning units or modules or the combination of practical and theoretical training;
- its volume in terms of learning and training hours, exams etc.;
- its value in term of its relation to other (formal) qualifications, e.g. by mapping the qualification within a national qualifications framework, within ESCO, ISCED or similar or identifying its linkage with other formal learning and training pathways;
- its bindingness and prescriptiveness e.g. in terms of linking them with e.g. industry or educational standards and quality assurance systems;
- its institutional entrenchment and establishment.

The following graph indicates the general steps that have to be taken to develop outcomes-oriented qualifications and curricula.

Table 15:Developing outcomes-oriented curricula (© British Council 2014)



Though the development demands that key stakeholders such as ministries, social partners and training institutions (jointly) determine these issues there is no standard pathway for the question who should be involved in this process and how. The same is true with respect to the degree of specialization that is linked with qualifications:

> 'There are […] wide differences in the range of qualifications developed, with some countries preferring to have a range of highly specialised qualifications (for example, United Kingdom) and others a small number of general and broad qualifications (for example, Sweden and Finland), the latter being considered to be a more flexible approach. Another approach is to leave decisions about qualification building to the industry sectors, by establishing banks of units that can be accessed to create specific qualifications for different need' (Misko 2015, p. 19).

As mentioned above, a key problem with developing qualifications and therewith-linked curricula is the degree to which professional and work-based skills are linked with generic and theoretical knowledge. On the one hand, it is particularly in the Anglophone countries where there is a strong separation between VET that is 'reduced to the skills needed to get a job and for work' (Wheelahan 2015, p. 271) whereby the 'emphasis in this curriculum is on applied, experiential and work-focused learning, and it is seen as a solution for those who are alienated from or unsuccessful in more traditional forms of academic education' (ibid.). In comparison, 'the emphasis in academic education is on accessing theoretical knowledge as a condition for understanding and changing practice' (ibid., p. 753). This in turns results in many countries in allocating professional qualifications such as nursing at higher education levels as is the case in e.g. the HCEU partner countries Austria,[42] Greece, Hungary and Poland.

[42] It is only recently that Austria has re-allocated its professional nursing qualifications from post-secondary non-tertiary levels to tertiary levels.

On the other hand, some countries (including e.g. the HCEU partner countries Austria and Germany) have a long and strong tradition in linking theoretical knowledge and work-based learning at non-tertiary levels – resulting in a higher prestige of vocational education and training per se and in allocating some professional qualifications such as nursing or elderly care at non-tertiary levels (as is the case e.g. in Germany).

These examples indicate that a best way of developing qualifications and – more basically – curricula does not exist. It is rather a

> 'constant debate and theorising that […] [the] discussion of curriculum development takes place. The concept that there is one correct mechanism for curriculum development and delivery is rejected and this discussion serves only to highlight some of the guiding principles and the problem areas for curriculum development [sic!] and delivery' (SAQA 2005: 5).

Against this background, the challenge arises how to develop (and then compare and value) qualifications that need a strong linkage between work process knowledge and skills and generic/theoretical knowledge.

As mentioned earlier, there are several approaches to develop outcomes-oriented curricula that provide a strong linkage between general and academic education on the one hand side and labour market needs on the other hand side. One of the most prominent ones is DACUM – Developing a Curriculum rooting in a then new curriculum development approach with Iowa Job Corps at Clinton, Iowa in the 1960s (cf. Norton/Moser 2007). This method is based on gathering data on the current and future labour market situation in a particular sector. This builds the fundament for developing the curriculum whereby the process of curriculum development follow a particular method initially developed by Norton (1985) and further developed and modified by e.g. Becker/Spöttl (2006), Rauner (2006) or Spöttl (2007). In general, it includes several curriculum development steps resulting in a 'job'[43] or 'qualification':

- review and comparison of existing curricula, qualification pathways and regulations,
- work process analyses
- expert interviews
- workshops with experts, skilled workers and professionals working in the respective occupational field.

The method is based on the assumption that only experts, professionals and skilled workers (Facharbeiter) in a professional field are able to identify and describe relevant working tasks by analysing work processes. Also, this approach assumes that it is only experts who are able to indicate the relevance of working tasks in comparison with other working tasks in the same professional field. To ensure a more holistic view on the process of curriculum development and to follow a clearly structured, well-documented and thus reliable and valid process of curriculum development, the DACUM-method and its predecessors also involve persons responsible for structuring and co-

[43] While Norton (1985) and Norton/Moser (2007) refer to the notion of 'jobs' the HCEU project refers to the notion of 'qualifications' and is well aware of the differences between the underlying concepts of the two notions.

ordinating the development process (so-called moderators) and additional experts from the field of curriculum development to ensure that the development meets general standards of (national) curriculum development (e.g. in terms of the number of identified core working tasks or the overall volume of knowledge, skills and competences resp. work duties, tasks and steps).

The original model developed by Norton is subdivided in duties, tasks and steps. In general,

- qualifications (jobs) commonly include 6-12 duties
- duties commonly included 6-20 tasks, i.e. 75-125 working tasks per qualification
- tasks include at least two steps; however, most tasks include several steps.

Two (quite simple) examples reflect the linkage between duties, tasks steps:

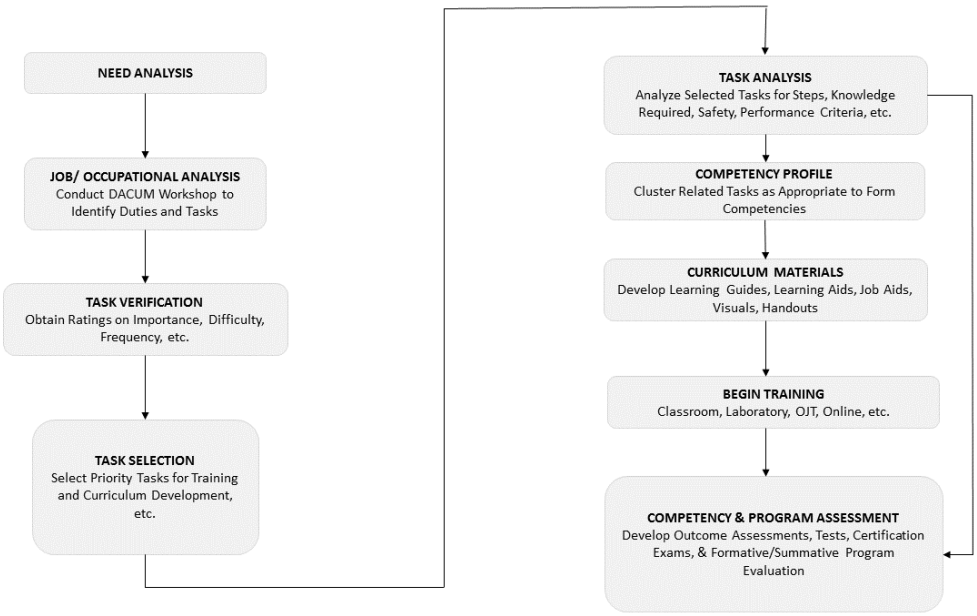
Table 16: Two examples indicating the DACUM logic (Norton 1985, Appendix 4).

Job	Homeowner	Homemaker
Duty	maintain the yard	prepare meals
Task	mow the lawn	bake cookies
Step	start the mower	mix ingredients

The duties, tasks and steps then have to be validated by experts to ensure that all relevant work activities will be integrated in the curriculum. As a results of this step standards for the newly developed or revised qualification can be defined which in turns is the fundament for developing the curriculum (or training progamme) including all modules and learning units. As a final step, training and learning material, guidelines and preparation material for exams and exams will be developed.

At the core of DACUM and its predecessors are a) work process analyses and b) one or two day workshops to develop a 'storyboard', i.e. a mindmap or picture of all duties, tasks and steps that are relevant for the curriculum. The following chart indicates the steps that need to be taken to develop a curriculum according to the DACUM approach.

Table 17: DACUM and SCID Process Flow Chart according to Norton and Moser 2008 (graph: authors)[44]



While this approach ensures a strong linkage with work process knowledge and thus with labour market needs it also harbours the risk of neglecting sufficient theoretical knowledge that might be relevant to fully grasp the context and relevance of a work process or a working task (Boreham 2002: 225). This calls for wisely linking both types for learning and knowledge acquisition given that 'the knowledge and theory which actually underpins professional performance is acquired in a somewhat ad hoc manner, largely through experience, when the individuals encounter real problems in practising the profession or doing a job' (Jessup 1991, p. 4).

Linking theoretical (academic) knowledge with practical knowledge and work-based experience thus ensures that learners are not only able to undertake a wide range of tasks but also respond more quickly and effectively to new work demands due to a broader understanding and technical knowledge with is, in turns, a key feature of formal vocational qualifications (DFEE 1998).

However, while DACUM and work process analysis are methods to develop curricula, HCEU did not aim at elaborating on new qualifications and curricula. Instead, it aimed at comparing existing qualifications in the project partner countries and thus fostering mobility and recognition of prior learning and foreign qualifications.

[44] DACUM: Developing A Curriculum; SCID: Systematic Curriculum and Instructional Development

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Chapter 6: Development of the Competence Matrix 'Professional Care'

This chapter presents the development of the competence matrix 'professional care' which covers all levels of assistant and professional care (nursing and elderly care) below PhD levels. It starts with describing the VQTS approach in general, then turns on providing examples of the main results of the VQTS approach in the HCEU project (the competence matrix and the therewith-linked learning outcomes) and then provides a more detailed description how the competence matrix was developed. More information on the VQTS approach in general and how it was applied in the HCEU project is provided in the matrix and the 'transfer kit' providing information on how to apply and further develop the HCEU matrix 'professional care' developed by 3s Unternehmensberatung, Vienna.

6.1 The VQTS approach

At the core of the HCEU project is a competence matrix indicating care competences and skills at various levels and including competence development steps. It is based on the Vocational Qualification Transfer System (VQTS) which was developed between 2003 to 2006 as part of a Leonardo da Vinci pilot project funded by the European Union, the Austrian Federal Ministry for Education, Science and Culture, and the Austrian Federal Ministry of Economics and Labour (Luomi-Messerer 2009).

Building on the five stages-model of competence development by Dreyfus and Dreyfus (1986; see chapter 3.2), the VQTS model aims at describing work-process-related skills and competences within a particular domain or occupational field. Its main components are

- a competence matrix, i.e. a grid (similar to the EQF matrix) indicating the core work tasks in a particular domain or field of expertise (so-called competence area) and
- the competences profiles, i.e. the competence development steps for each of the competence areas.

According to the project consortium of VQTS I, this model can be used for:

- 'the transfer of vocational competences acquired abroad (mobility in VET)
- the transfer and recognition of competences acquired within the official VET system as well as competences achieved through non-formal or informal learning
- the development of qualifications
- composing job profiles as well as personnel (human resources) planning
- enhancing the visibility of differences in qualifications, therefore for use in the development of the EQF' (Luomi-Messerer/Markowitsch 2006, p. 9).

In line with the results of this project a second VQTS project (VQTS II, 2007-2009) was run in which the matrix was applied in the domain of electronics and electrical engineering (Luomi-Messerer 2009).

Both projects were closely linked with the core ideas of the Copenhagen Process which aims at strengthening the cooperation between EU countries in (vocational) education and fostering individual mobility. This process includes promoting transparency of competences and qualifications through the development of a common European Qualifications Framework (EQF) as well as developing tools and instruments for mutually validating and recognising competences and (foreign) qualifications. Joint initiatives and tools such as ECVET aim at supporting cross-national mobility and permeability between educational sectors and institutions. To realise these aims the European Union has initiated and promoted numerous initiatives to facilitate validation and recognition of prior learning, the therewith-linked shift to learning outcomes and the transparency of qualifications (European Commission 2004).

The VQTS approach also aims at supporting transparency of individual competence profiles related to core work tasks. Compared to other transparency instruments it is less focussing on formal qualifications and certificates and rather pointing at the actual work-process related competences (Becker et al. 2007; Markowitsch et al. 2008). In general, the approach is based on the model of expertise acquisition by Dreyfus and Dreyfus (1980) which describes five stages of competence development from novice to expert (cf. Becker et al. 2007; Markowitsch et al. 2008; see also chapter 3.2). Whereas the Dreyfus and Dreyfus model roughly describes the competence development at each level of expertise (see chapter 3.2) the VQTS model applies are more differentiated approach which describes and determines professional actions and skills at each competence level by defining entities (modules, learning units) of professional profiles corresponding to specific core work tasks. This approach allows for developing a competence matrix which describes learning outcomes (in terms of e.g. knowledge, skills, competences, attitudes, responsibilities) subdivided into as many competence development steps as necessary to reach expertise which is defined as the highest level of competence development. Any competence matrix developed by applying the VQTS approach is related to a particular occupational field and linked to actual (core) working tasks. Based on these core work tasks, competence areas can be identified and listed in the left column of the matrix (vertical axis). The number of competence areas varies depending on the range of activities in the corresponding occupational field (cf. Luomi-Messerer 2009; Markowitsch et al. 2008). The horizontal axis of the matrix represents the steps of development of each competence area. Thereby, the number of competence development steps is not pre-determined but rather determined by the complexity of the corresponding core working tasks (ibid.). Basically, a competence matrix may look as follows:

Table 18: General example of a competence matrix. Source: Authors.

Competence area	Steps of Competence development					
Area 1	Step 1		Step 2	Step 3		Step 4
Area 2	Step 1		Step 2		Step 3	
Area 3	Step 1		Step 2		Step 3	
Area 4	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Area X	Step 1			Step 2		

Again, it is important to point out that the number of competence areas and the number of competences development steps is not pre-defined. It rather depends on the context, scope and complexity of working tasks in the respective professional domain.

This is also reflected in the following table indicating examples taken from the Competence matrix 'Professional Care' which was developed in the HCEU project. For example, while the result of the matrix development process indicated three competence development steps for '2.1 basic care and personal hygiene' only (2.1.a, 2.1.b, 2.1.c), 'nutrition' includes four competence development steps (2.2.a, 2.2.b, 2.2.c, 2.2.d).

Table 19: Example of a competence area in the HCEU Competence Matrix 'Professional Care'

(Competence Area 2) Nursing Care				
Sub-areas of competence	**Steps of competence development**			
2.1 Basic care and personal hygiene	2.1.a To be able to support the patient/client to perform basic care.		2.1.b To be able to perform basic care in all care cases.	2.1.c To be able to guide and supervise others in performing basic care in all care cases.
2.2 Nutrition	2.2.a To be able to order and distribute meals and, if necessary, support patients/clients without specific dietary restrictions or functional limitations according to nutrition plans.	2.2.b To be able to assist in • preparing and adapting a nutrition plan according to patients'/clients' individual condition and functional limitations, • handle enteral nutrition and to place and handle feeding tubes.	2.2.c To be able to independently • prepare and adapt a nutrition plan according to patient's/client 's individual condition and functional limitations, • place and handle feeding tubes.	2.2.d To be able to guide and supervise the handling of enteral nutrition and placing and handling of feeding tubes.

2.3 Mobility, movement, positioning	2.3.a To be able to assist in mobility measures including patient/client activation according to patient's/client's treatment plan and individual condition.		2.3.b To be able to implement mobility measures including patient/client activation according to patient's/client's treatment plan and individual condition.	2.3.c To be able to guide and supervise the implementation of mobility measures.
2.4 Excretion	2.4.a To be able to support patients/clients in excretion.	2.4.b To be able to assist in • placing and caring of catheters, • placing and handling enemas and bowel catheter systems.	2.4.c To be able to • place and care for urinary catheters, • place and handle enemas and bowel catheter systems.	2.4.d To be able to guide and supervise all measures related to excretion.

Moreover, for the first time in the history of the VQTS approach, the HCEU project partners not only developed the competence matrix but also derived competence (as described in the EQF levels), knowledge and skills from each of the competence development steps. As an example, the following table provides an overview of the relevant skills and knowledge for the sub-area of competence '2.1 basic care and hygiene', sub-competence 2.1.a '2.1.a To be able to support the patient/client to perform basic care'.

Table 20: Example of relevant competences, knowledge and skills for a competence development step in the HCEU matrix.

Competence Area 2: Nursing Care		
Sub-area of competence: 2.1: Basic care and personal hygiene		
Competence development step: 2.1.a To be able to support the patient/client to perform basic care		
Competences (EQF)	**Knowledge**	**Skills**
The professional caregiver is able to support patients/ clients in performing resource-oriented basic care and to assist others in performing basic care. This is done autonomously and self-responsibly but according to instruction.	The professional caregiver is able to: – maintain an empathic approach to patients/clients and to recognise and to accept limitations (e.g. own and others) – involve the patient/client and relevant others in the supporting of basic care – adapt the room temperature to the care act (e.g. regarding patient's/client's wishes and needs) – respect privacy of the patient/ client – support patient's/client's in a full, partial or intimate body wash – support patient's/client's in skin care and prophylactic measures regarding skin	The professional caregiver is able to: – describe the elements of personal hygiene and full body wash – explain one's own behaviour regarding room temperature in the care act (e.g. close the window) – explain expectations of the patient/ client regarding privacy in personal hygiene – describe the procedure of body wash in bed – describe the anatomy of the skin and the principles and goals of skin care – name different cleansing agents and care products and their

	– support patient's/client's in personal hygiene (e.g. in bed, at the washbasin) – support patient's/client's hair care and hair wash – support patient's/client's in showering – wash and bath an infant – support patient's/client's in oral hygiene (e.g. dental and prosthesis care, mouth care and thrush, stomatitis, parotitis prophylaxis) – support patients'/clients' nail hygiene – support patients/clients in nose hygiene – support patients/clients in ear care – support patients/clients in dressing and undressing – make beds – assist others in bedding of patients/clients – implement care aids in performing measures of personal hygiene – apply special care measures in assisting others regarding patients/clients with special diseases and needs (e.g. external fixator, difficulty in breathing) – empower the patient/client to act self-determinedly through resource-orientated care – apply professional care plans in the process of personal hygiene to the patient/client – recognise and report acute changes in the patient's/client's condition – call for support when dealing with complications and difficult situations – apply a relaxing intervention (e.g. show understanding of the patient's/client's situation and to have a calming conversation) – support patients/clients in shaving face – support patients/clients to perform a foot bathing – apply measures to protect patients/ clients from noise, radiation, unpleasant lightning – apply measures to protect patients/ clients with specific diseases from exposure (e.g. avoid to expose patients/clients with neurodermitis to creams containing wool wax, alcohol-containing solutions)	impacts – describe skin care in special diseases (e.g. ulcers, pressure ulcers, skin age, skin diseases) – describe one's own behaviour regarding personal hygiene when dealing with patients'/clients' pain – explain methods of pain control – explain diseases relevant for skin care and personal hygiene (e.g. ulcera, pressure ulcerus, skin age, skin diseases) – explain use of prevention equipment for ulcers (e.g. pillows, antidecubitus matress, water-filled glove) – distinguish and explain various stages of pressure ulcerus (e.g. stadium I to IV) – describe the methods of skin prophylaxis (e.g. intertrigoprophylaxis, pressure ulcera prophylaxis) – describe the anatomy of mouth, ears, eyes, nose – explain prophylactic measures regarding to mouth, ears, eyes, nose – describe techniques to support patient's/client's in dressing and undressing – describe techniques to change the bed linen with/without patient/ client in bed – describe the principles of resource-oriented care (e.g. to empower patients/clients in acting self-determinedly) – select a dry or wet shave system according to the needs and habits of the patient/ client – describe the performance of a foot bathing – explain values and beliefs of different cultural, ethnological and religious groups and how this may affect patients'/clients' within basic hygiene – describe development and prevention of burns and frostbites – name effects of noise (e.g. wake threshold, stress) – explain the special need for protection of patient's/client's with specific sicknesses (e.g. recrudescence in case of alcoholism)

With the competence matrix and the learning outcomes for each of the competence development steps it is possible

- to display qualification profiles at national levels (e.g. the one of a registered nurse in Austria, i.e. the profile that is reflected in a training programme or a curriculum) and
- to display competence profiles including additional competences, knowledge and skills as needed by a particular employer. In the HCEU project, this type of profile is called 'organisational profile' and is explained in detail in the respective HCEU documents and tools.

Moreover, the competence matrix also allows identifying individual competences, skills, and knowledge profiles. This can be done by e.g. applying the individual tools, instruments and guidelines for identification (and recognition) of prior learning which were also part of the project (see 'Tools, Instruments and Guidelines for the Identification of Individual Competence Profiles'). Thus, applying the matrix in combination with the organisational profiles and the individual profiles offers the opportunity to compare and contrast the competences, skills and knowledge needed by a national authority to receive a recognised qualification with the actual profile of a person applying for recognition.

6.2 In detail: methodological approach and initial draft of the HCEU competence matrix

Applying the VQTS model presupposes a number of issues. First, those developing the competence matrix ('developers') have to ensure that core working tasks have to be identified the relevant professional context and based on work process analysis (rather than deriving them from previous curricula). Thus, working tasks should be described independently of a national educational/qualification system and should be derived from work process analyses, company surveys, expert interviews, work-related comparison of existing qualification or occupational profiles and moderated workshops with experts from the occupational field. However, identifying competence areas based on work process analysis is time-consuming and expensive which often leads to preparing a competence matrix which is based on secondary sources analyses (such as competence descriptions that have been gathered empirically in other research projects). Against this background, it is even more important to validate a competence matrix and amend it based on expert feedback. Developing a Competence Matrix in this respect is based on empirical research and it is based on an intensive communication and negotiation process between experts and professional working in the relevant domain.

In this context, the role of experts is a prominent one: Experts from the respective occupational field and experts from the world of education (VET and HE) should be as much integrated as experts from various countries and experienced practitioners.

Table 21: Experts' role in validating a competence matrix.

Identifying 'experts' for developing competence matrices

Curriculum development and development of competence matrices presupposes identifying and involving 'experts' in the respective field. As indicated in chapter 2.3 an expert is someone who

- intuitively sees what needs to be done
- sees immediately how to achieve this goal
- is able to make subtle and refined situation-related discriminations (which distinguishes experts from proficient performers) and
- is able to consider various tactical decisions and subtly different approaches to solve a task though the situations may look more or less alike (Dreyfus 1981; Dreyfus and Dreyfus 1986; Dreyfus 2004).

Involving experts in the development and validation of competence matrices ensures that relevant and specialised data on the respective professional field will be gained. 'Experts' are not identified as a particular interview groups pre-defined by a particular methodological approach but rather by their characteristics in the relevant field of expertise (Bogner et al. 2014, p. 9). They are highly skilled persons with specialised knowledge, competences and work experience. Interviews with experts have a validating function and – in parallel – they have an explorative and complementary character which ensures that all relevant aspects of a particular field of research are being considered.

Moreover, identifying the allocation of all relevant formal qualifications in occupational and educational classification systems (ISCO-88 and ICED-11) should be another starting point for developing the competence matrix.[45]

Against this background, initial work on the HCEU competence matrix 'Professional care' started with several steps whereby the initial idea was to develop two separate matrices, i.e. one for nursing and one for elderly care.

With respect to **elderly care**, the initial draft matrix for this professional field was derived from the results of a previous project called NoBoMa (No Borders in Elderly Care[46]) which was run by one of the project partners (3s Unternehmensberatung, Vienna) and aimed at transferring the VQTS model to the occupational field 'elderly care' and at developing a competence matrix for elderly care. This competence matrix was based on findings from similar projects and a review and comparison of national/professional curricula of elderly care training programmes and job profiles in the NoBoMa project partner countries (Austria, Bulgaria, Romania, Slovenia and Hungary). This competence matrix was validated and revised in the HCEU project by both, project partners and external experts.

With respect to **general nursing**, development of the competence matrix had to start from the scratch, i.e. by identifying and comparing relevant national qualification profiles and curricula. A list of all regulations that were considered for developing the competence matrix is provided in the

[45] Luomi-Messer (2009) developed a checklist for developing a Competence Matrix including e.g. all relevant steps before, duing and after the development process, i.e. scope of a Competence Matrix, the competence areas and core work tasks, the description of competences in relation to the work context on various stages of the competence development process, methods and resources for developing a Competence Matrix, application of a Competence Matrix.

[46] http://www.vocationalqualification.net/

following table. Moreover, re-checking all national regulations in the field of elderly care in the HCEU partner countries ensured that the elderly care matrix was up to date and also included all relevant and current legal regulations.

Additional desk research was done to identify the most relevant research and additional regulations in non-project partner countries. A list of these documents can be found in the appendix.

The documents were structured according to all qualification levels existing in all partner countries below PhD level (assistants, helpers, professionals at post-secondary non-tertiary levels, Bachelor level and Master level). However, given the variety, complexity and scope of further training types, contents and provides, further and continuing professional training in the field of elderly care and nursing was not considered in the matrix.

The following table provides an overview which curricula and regulations were considered for developing the matrix:

Table 22: National curricula, qualifications and regulations respected in the HCEU matrix 'professional care'

Country	Qualifications and regulation
Austria	**Qualifications:** – Diplom über die Ausbildung in der allgemeinen Gesundheits- und Krankenpflege issued by Schule für allgemeine Gesundheits- und Krankenpflege entiteling to the professional title Diplomierte Gesundheits- und Krankenschwester – Diplom als ‚Diplomierte Krankenschwester/ Diplomierter Krankenpfleger' issued by Allgemeine Krankenpflegeschule entiteling to the professional title Diplomierter Gesundheits- und Krankenpfleger – Diplom über den Abschluss des Fachhochschul- Bachelorstudiengangs ‚Gesundheits- und Krankenpflege' issued by Fachhochschulrat/Fachhochschule entiteling to the professional title Diplomierter Gesundheits- und Krankenpfleger. Relevant regulations came into effect on 01.01.1994. **Regulation:** – Bundesgesetz über Gesundheits- und Krankenpflegeberufe (Gesundheits- und Krankenpflegegesetz – GuKG) StF: BGBl. I Nr. 108/1997 (NR: GP XX RV 709 AB 777 S. 82. BR: 5494 AB 5515 S. 629.) [CELEX-Nr.: 377L0452, 377L0453, 389L0048, 392L0051][47] [Federal Act on healthcare and nursing professions (Health Care Act-GuKG)]
Germany	**Qualification:** – Zeugnis über die staatliche Prüfung in der Krankenpflege issued by Staatlicher Prüfungsausschuss Fachhochschule entiteling to the professional title Gesundheits- und Krankenpflegerin/Gesundheits- und Krankenpfleger. The relevant regulation came into effect on 29.06.1979. **Regulations:** – Ausbildungs- und Prüfungsverordnung für die Berufe in der Krankenpflege KrPflAPrV - 2003, zuletzt geändert 2016 – Ausbildungsrichtlinie für die staatlich anerkannten Kranken- und Kinderkrankenpflegeschulen in NRW (Ministerium für Gesundheit, Soziales, Frauen und Familie des Landes NRW - letzte Anpassung 2003)

[47] https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10011026

	– Lehrplan Gesundheits- und Krankenpflege (Thüringer Kultusministerium 2007) – Rahmenrichtlinie für die Berufe in der Gesundheits- und Krankenpflege und in der Gesundheits- und Kinderkrankenpflege (Niedersächsisches Kultusministerium - 2006) – Lehrplanrichtlinien für die Berufsfachschule für Krankenpflege und Kinderkrankenpflege (Bayerisches Staatsministerium für Unterricht und Kultus - 2005) – Rahmenlehrplan und Ausbildungsrahmenplan für die Ausbildung in der Gesundheits- und Krankenpflege und Gesundheits- und Kinderkrankenpflege des Landes Rheinland-Pfalz (aktualisiert 2013) – Rahmenplan für den theoretischen und praktischen Unterricht und die praktische Ausbildung zur Gesundheits- und Krankenpflegerin und zum Gesundheits- und Krankenpfleger sowie zur Gesundheits- und Kinderkrankenpflegerin und zum Gesundheits- und Kinderkrankenpfleger im Land Brandenburg (Land Brandenburg, Ministerium für Arbeit, Soziales, Gesundheit und Familie - 2008)
Greece	**Qualifications:** – Πτυχίο Νοσηλευτικής Παν/ μίου Αθηνών issued by Πανεπιστήμιο Αθηνών – Πτυχίο Νοσηλευτικής Τεχνολογικών Εκπαιδευτικών Ιδρυμάτων (Τ.Ε.Ι.) issued by Τεχνολογικά Εκπαιδευτικά Ιδρύματα Υπουργείο Εθνικής Παιδείας και Θρησκευμάτω – Πτυχίο Αξιωματικών Νοσηλευτικής issued by Υπουργείο Εθνικής 'Αμυνας – Πτυχίο Αδελφών Νοσοκόμων πρώην Ανωτέρων Σχολών Υπουργείου Υγείας και Πρόνοιας issued by Υπουργείο Υγείας και Πρόνοιας – Πτυχίο Αδελφών Νοσοκόμων και Επισκεπτριών πρώην Ανωτέρων Σχολών Υπουργείου Υγείας και Πρόνοιας issued by Υπουργείο Υγείας και Πρόνοιας – Πτυχίο Τμήματος Νοσηλευτικής issued by ιδείας και Θρησκευμάτων – Πτυχίο Τμήματος Νοσηλευτικής Πανεπιστήμιου Πελοποννήσου issued by Πανεπιστήμιο Πελοποννήσου All regulations came into effect on 01.01.1981 and entitle to the professional title Διπλωματούχος ή πτυχιούχος νοσοκόμος, νοσηλευτής ή νοσηλεύτρια. Regulations: – Study guide in nursing for registered nursing, TEI of Athens (undated) – Study guide in nursing for registered nursing, TEI of Thessaloniki (undated) – Study guide in Nursing for registered nursing, National and Kapodistrian University, Athens (2015-2016) – Study guide in Nursing for registered nursing, University of Peloponnese, Sparta (2014-2015) **Additional Information:** — Το 2001 (σύμφωνα με το νόμο 2916/2001) όλα τα Τεχνολογικά Εκπαιδευτικά Ιδρύματα ανήκουν στα Ανώτατα Εκπαιδευτικά Ιδρύματα μαζί με τα Πανεπιστήμια, σύμφωνα με τη Διακήρυξη της Μπολόνια *[In 2001 (under Act 2916/2001) all Technological Educational Institutes were established as Higher Education Institutes along with the Universities, in compliance with the Bologna declaration.]* — Σύμφωνα με το Νόμο-πλαίσιο (2007), η τριτοβάθμια εκπαίδευση στην Ελλάδα αποτελείται από δύο παράλληλους τομείς: τον Πανεπιστημιακό τομέα (Πανεπιστήμια, Πολυτεχνεία, Σχολές Καλών Τεχνών, Ανοιχτό Πανεπιστήμιο) και τον Τεχνολογικό τομέα (ΤΕΙ και Σχολή Παιδαγωγικής και Τεχνολογικής Εκπαίδευσης). Ο ίδιος νόμος ρυθμίζει τα ζητήματα που αφορούν τη διακυβέρνηση της τριτοβάθμιας εκπαίδευσης σύμφωνα με τις γενικές γραμμές της αυξημένης συμμετοχής, της μεγαλύτερης διαφάνειας, της λογοδοσίας και της αυξημένης αυτονομίας. *[According to Act 3549/2007 higher education in Greece, consists of two parallel sectors: the University sector (Universities, Polytechnics, Fine Arts Schools, the Open University) and the Technological sector (Technological Education Institutions (TEI) and the School of Pedagogic and Technological Education). The same law regulates issues concerning governance of higher education along the general lines of increased*

	participation, greater transparency, accountability and increased autonomy.] — Το νέο πρόγραμμα σπουδών του τμήματος νοσηλευτικής του Πανεπιστημίου Δυτικής Αττικής βασίζεται στις οδηγίες και κατευθύνσεις της Ευρωπαϊκής Ένωσης (Ε.Ε.), οι οποίες για τη νοσηλευτική εκπαίδευση συμβαδίζουν με αυτές του ΠΟΥ. Σημειώνεται ότι στην Ε.Ε. υπάρχουν ειδικές Τομεακές Οδηγίες για την Νοσηλευτική (οδηγία 2005/36/ ΕΚ, οδηγία 2013/55/ΕΕ). Λήφθηκαν ιδιαίτερα υπόψη οι οδηγίες και οι συστάσεις της Συμβουλευτικής επιτροπής για την εκπαίδευση Νοσηλευτών (Advisory Committee on Training in Nursing, ACTN) οι οποίες και καθορίζουν το περιεχόμενο του νοσηλευτικού προγράμματος στις χώρες της Ευρώπης, τόσο από άποψη θεωρητικής, όσο και από άποψη κλινικής εκπαίδευσης. Οι προαναφερόμενες οδηγίες της ACTN είναι αποδεκτές από τον ΠΟΥ, το Διεθνή Σύνδεσμο Νοσηλευτών (International Council of Nurses, ICN), από την Ευρωπαϊκή Ομοσπονδία Συνδέσμων Νοσηλευτών (EFN) και τη μόνιμη επιτροπή νοσηλευτών στην Ε.Ε. (Standing Committee of Nurses of the EU, PCN). *[The new curriculum of the Department of Nursing at the University of Western Attica (Former TEI of Athens) is based on the Guidelines and directions of the European Union (EU), which for nursing education are in line with those of the WHO. It is noted that in the EU there are special Sectoral Directives on Nursing (Directive 2005/36 / EC, Directive 2013/55 / EU). There were also followed the guidelines and recommendations of the Advisory Committee for the Nursing Training (ACTN) which determine the content of the nursing program in the countries of Europe, both theoretically and in terms of clinical education. The mentioned ACTN guidelines are acceptable from the WHO, the International Council of Nurses, (ICN), by the European Federation of Nurses (EFN) and the Standing Committee of Nurses in the EU (PCN).]*
Hungary	**Qualifications:** – Svjedodžba ‚medicinska sestra opće njege/medicinski tehničar opće njege' issued by Srednje strukovne škole koje izvode program za stjecanje kvalifikacije ‚medicinska sestra opće njege/ medicinski tehničar opće njege' entiteling to the professional title medicinska sestra opće njege/medicinski tehničar opće njege – Svjedodžba ‚prvostupnik (baccalaureus) sestrinstva/ prvostupnica (baccalaurea) sestrinstva' issued by Medicinski fakulteti sveučilišta u Republici Hrvatskoj or Sveučilišta u Republici Hrvatskoj or Veleučilišta u Republici Hrvatskoj entiteling to the professional title prvostupnik (baccalaureus) sestrinstva/prvostupnica (baccalaurea) sestrinstva The regulations came into effect on 01.07.2017. **Additional Information:** – Study regulation 'Nursing and Patient Care' at Bachelor level, University of Szeged, Faculty of Health Sciences and Social Studies, accredited by the Hungarian Accreditation Committee
Poland	**Qualifications and Regulations:** – Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 9 maja 2012 r. w sprawie standardów kształcenia dla kierunków studiów: lekarskiego, lekarsko-dentystycznego, farmacji, pielęgniarstwa i położnictwa (Dz.U. 2012 poz. 631). [Regulation of the Minister of Science and Higher Education of 9 May 2012 on education standards for the following fields of study: medicine, medical-dentistry, pharmacy, nursing and midwifery (Journal of Laws of 2012, item 631).] – Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 17 listopada 2016 r. zmieniające rozporządzenie w sprawie standardów kształcenia dla kierunków studiów: lekarskiego, lekarsko-dentystycznego, farmacji, pielęgniarstwa i położnictwa (Dz.U. 2016 poz. 1908). [Regulation of the Minister of Science and Higher Education of November 17, 2016 amending the regulation on education standards for the following faculties: medicine, medical-dentistry, pharmacy, nursing and midwifery (Journal of Laws of 2016, item 1908).] – Ustawa z dnia 15 lipca 2011 r. o zawodach pielęgniarki i położnej (Dz.U. 2011, nr 174, poz. 1039) [Act on nurse and midwife professions. 15 July, 2011 (Journal of Laws of 2011, No. 174 item 1039).] – Dyplom ukończenia studiów wyższych na kierunku pielęgniarstwo z tytułem ‚magister pielęgniarstwa' issued by Instytucja prowadząca kształcenie na poziomie wyższym uznana przez właściwe władze entiteling to the professional title Pielęgniarka

- Dyplom ukończenia studiów wyższych zawodowych na kierunku/specjalności pielęgniarstwo z tytułem ‚licencjat pielęgniarstwa' issued by issued by Instytucja prowadząca kształcenie na poziomie wyższym uznana przez właściwe władze entiteling to the professional title Pielęgniarka.

The latter two regulations came into effect on 01.05.2004.

All regulations are in line with Directive 2005/36/EC of the European Parliament and the Council of the European Union of September 7, 2005 on the recognition of professional qualifications and Directive 2013/55/EU of the European Parliament and the Council of the European Union of November 20, 2013 amending Directive 2005/36/EC.

In parallel, a questionnaire was sent to all project partners by which allocation of relevant qualifications in all partner countries was addressed. This questionnaire also aimed at identifying

- national regulations with respect to receiving formal training in general nursing and elderly care;
- national regulations with respect to recognition of foreign qualifications in general nursing and elderly care including competent bodies, recognition procedures, costs and assessors' qualifications;
- allocation of relevant qualifications in the national education system.

The result of this questionnaire provided a framework for developing the competence matrices. The findings are summarised in chapter 4 and in the appendix of this report.

Following the review and comparison of existing curricula and regulations, experts from the partner countries were involved in developing two matrices by identifying core working tasks and competence development steps. The way in which experts were involved in identifying, clustering and structuring core working tasks and linking them with national and European regulations and curricula was based on the curriculum development method DACUM (Developing A Curriculum; see previous chapter). Bearing in mind

- the terminology of the European transparency instruments such as the EQF and ECVET and
- the professional fields HCEU is focussing on and
- the fact that the DACUM model was the starting point for developing the VQTS model (rather than it was directly applied in the project),

the HCEU project refers to the notions 'competence areas', 'competence sub-areas' and 'competence development steps', the latter ones expressed in terms of knowledge, skills, competences. As a consequence, the initial drafts of the competence matrices for 'nursing' and 'elderly care' were developed with respect to the above-mentioned steps (curriculum analyses, work process observation and analyses, expert interviews; workshops with experts and professionals).

However, while elaborating on and revising the matrices discussions about the relevance of two separate matrices came up and experts questioned whether and if so, in which ways splitting both

occupational fields was necessary. This discussion was dominated by the relevance of formal regulations in the two occupational fields versus the de-facto similar working tasks in both fields. For example, while elderly care is completely separated from nursing in the UK, Greece and Poland do not provide training below tertiary levels and basic care of elderly persons is up to families and relatives and thus not part of a formal training programme.

Against this background, merging the two competence matrices 'elderly care' and 'general nursing' started in September 2016. The first draft of the unified matrix called 'professional care' was available in November 2016. Unifying both matrices respected the fact that particular qualifications in elderly care do not exist in all HCEU partner countries and revisions and re-allocations of existing qualifications are currently being prepared or finalised in at least two HCEU partner countries: Germany recently merged the training curricula for general nursing, paediatric nursing and elderly care (three-year post-secondary at non-tertiary level) [48] and Austria shifted nursing qualifications from post-secondary non-tertiary levels up to tertiary levels.

6.3 Validating the HCEU matrix

After drafting a competence matrix one of the core challenges it to validate it to ensure that it actually reflects all relevant and necessary elements of knowledge, skills, competences, attitudes etc. that are required to fulfil the working tasks in a particular field.

In the HCEU project, validation of the first draft of the elderly care competence matrix resulting from the NoBoMa project was based on a validation interview questionnaire developed by 3s research laboratory and distributed to all HCEU consortium partners who sent it to professionals and experts, i.e. professional elderly care givers, employers in the elderly care sector, training providers, social partners and national / regional authorities. With a partly standardized questionnaire, the project partners searched validation for the competence areas, the sub-competence areas and the corresponding competence development steps of the two separate competence matrices.

Identifying the relevant experts was up to the national project partners and started in October 2015. The project consortium aimed at three validation interviews per country and managed to run an overall number of 19 interviews. Analysis of the interviews was up to 3s research laboratory and resulted in numerous amendments of the two separate matrices and – finally – in merging the two matrices into the initial draft of the unified competence matrix 'professional care'.

To validate the unified competence matrix, 3s research laboratory prepared a questionnaire for expert interviews on core working tasks and professional development steps of general nursing in the project countries. Again, the project consortium identified professionals in the field of nursing to run validation interviews. This time, the aims was to run at least five interviews per partner country including:

- 2 to 3 interviews with professional nurses (licensed/registered nurses),
- 1 to 2 interviews with nursing teachers and trainers,

[48] The new regulation will be implemented gradually until 2020 (cf. BMFSFJ 2017).

- 1 to 2 interviews with researchers, employers and/or social partners working in the field of general nursing.

After pre-testing the questionnaire, interviews were run by phone or face-to-face (depending on the availability of the experts) which took approx. 40 minutes each. General information on the HCEU project, its aims and – if asked for – the interview questions were provided to the interview partners beforehand. Again, the interviews aimed at validating the core working tasks and ensuring that all relevant work-related activities were covered by the competence matrix.

As a result, 21 interviews with experts and professionals from Austria, Germany, Greece, Hungary and Poland were realised and analysed by 3s research laboratory. To analyse the interviews, all work-related activities specified in the interviews including the therewith-related competence development steps were identified and compared against the draft competence matrix. Next, the working tasks were re-defined (if necessary) and (sub-)competence areas were derived from the core working tasks. As a final step, the working tasks were linked with the competence development steps ensuring that all relevant work-related tasks were integrated in the matrix.

After developing the initial draft(s) of the competence matrix, the project consortium run several additional validation workshops in the project partner countries. The aim of the validation workshops was to verify the number and scope of competence areas in the HCEU Competence Matrix to verify and (if necessary) amend the competence development steps. In all workshops, up to three groups of four to six mostly national experts discussed the above-mentioned issues. All workshops were documented and results were integrated into the matrix.

The first expert workshop on the HCEU Competence Matrix 'General Nursing' took place in Krakow in March 2016 and included general nursing experts and practitioners. A second validation workshop took place in Vienna in September 2016, both of them on the then separate matrices. In January 2017, two validation workshops were run in Berlin and Athens; they were the first workshops to address the unified competence matrix 'Professional Care'. Additional validation workshops were held in Budapest (February 2017), Crete (September 2017) and a final validation discussion was held in Esslingen (February 2018).

In addition, preliminary findings of the project were presented at several conferences (e.g. biannual conference of the Journal of Vocational Training – JVET in July 2017, European Conference on Educational Research in August 2017). The presentations offered an additional opportunity to discuss and clarify the overall approach with experts.

The final version of the matrix was presented at the HCEU final conference and learning event in June 2018 in Dresden. Minor changes ensured consistency and understandability of the matrix but did not affect its content. The same is true for a final language and spelling check.

In the HCEU project, deriving learning outcomes from the matrix was an innovation ever since the VQTS models has been developed. Given the scope and volume of learning outcomes to be developed in terms of competences, knowledge and skills for all sub-areas of competence, the

project consortium decided to develop learning outcomes for the most relevant sub-areas of competences only. This included:

- Competence Area 1: Assessment, diagnosis, planning professional care
- Competence Area 2: Nursing Care
- Competence Area 3: Nursing intervension(s)
- Competence Area 4: Creating and maintaining a healthy and safe environment
- Transversal Competence Area A: Monitoring, documentation, quality assurance

Restricting the number of competence areas for which the consortium developed learning outcomes seemed reasonable not only to ensure that users would understand how to develop learning outcomes but also since the main target group of the project – the competent bodies and national authorities – would need to adapt the learning outcomes according to their national qualifications and regulations anyway. However, the consortium ensured that by the end of the project all project partners were able to derive learning outcomes form the matrix and had understood the core challenges and tasks that are linked with the learning outcomes approach. Last not least developing learning outcomes was also one of the main topics of all validation workshops.

6.4 Lessons learnt

The VQTS approach was developed and first implement in two professional domains that are not highly standardised and regulated compared with elderly care and nursing: The first competence matrix (VQTS I) focused on competences in the domain of mechatronics and included competence development steps of workers at beginner level to skilled worker level. The second one (VQTS II) was developed in the domain of electronics/electrical engineering including competence development areas at the crossroads of VET and HE programmes. When applying VQTS in the health care sector new challenges became obvious which were most of all due the fact that nursing is a highly regulated professional field that (in most countries) is provided by higher education institutions. Against this background, this final section will summarise the project's experience with transferring and applying the VQTS approach to the health care sector. Statements and feedback were provided by all project partners and a special interview with 3s Unternehmensberatung, Vienna on their particular experience with the approach was run in November 2016.

The main ***strength*** of the VQTS approach and of developing a competence matrix is the opportunity to enhance transparency of competences and qualifications and thus to foster mutual understanding of cultural, work-related and educational contexts. It fosters understanding and comparting qualifications across educational sectors (e.g. VET and HE), national borders and labour market sectors.

This, in turns can help training providers and employers to better understand formal qualifications, actual learning outcomes and competence profiles and identify commonalities of qualifications (rather than focussing on differences). It can thus support recognition of prior learning and transferring credentials.

With respect to developing curricula and qualifications VQTS and a competence matrix can serve either as a starting point for developing qualifications or training programmes or they can be the result of comparing existing qualifications and curricula in a particular domain. Moreover, it can also provide the description of the progress of the competence development for each competence area. An (individual) competence profile based on a competence matrix is therefore characterised by a 'logic of development'-oriented design. Thus, it is also useful to identify individual skills needs which may, in turns, serve as a fundament to develop (individual) gap training.

Last not least, since the competence descriptions in a competence matrix are based on working tasks they are easy to understand for labour market stakeholders in the relevant occupational field. It allows them to identify existing job profiles in their companies or to map the competence profiles of their staff. Thus, they can monitor the matching of the job profiles with the competence profiles of their employees and this could help them, if needed, to identify required competence profiles for prospective employees.

Using the VQTS model also allows for referencing qualifications to qualifications frameworks and it can be used to identify overlapping competence areas of competence profiles of VET and HE qualifications

However, applying the VQTS model also includes a number of ***challenges and risks***. First, there is a risk of overburdening stakeholders when applying the approach: It is particularly in countries and educational sectors that are not (yet) familiar with the learning outcomes approach where the traditional input orientation dominates and may prevent stakeholders from the shift to learning outcomes. Curricula that are traditionally input-oriented and dominated by academic/theoretical knowledge are hard to display on a competence matrix in terms of skills and competences. However, describing domain-related work process relevant competences can help improve the opportunities for recognition and credit transfer.

Another challenges lies in developing the 'right' number of competence development steps: given that there is no such number (as e.g. provided in the competence development models by Dreyfus and Dreyfus 1980), it can be hard to identify and 'negotiate' the adequate number of competence development steps. Given the scope and number of experts and persons it needs per se to develop a competence matrix this process can be even more challenging. In this context, experts, professionals and practitioners involved in the development process sometimes are disappointed by the level of abstraction of the matrix their intention is to use the matrix for recognition of prior learning. Indeed, in the context, the VQTS matrix has to be linked with additional instruments to identify and assess an individual competence profile. To address this topic, the HCEU project provides numerous guidelines, tools and instruments to identify, document and assess prior learning and foreign qualifications and thus supports recognition of learning outcomes that were gained outside a formal or outside the respective national qualification system.

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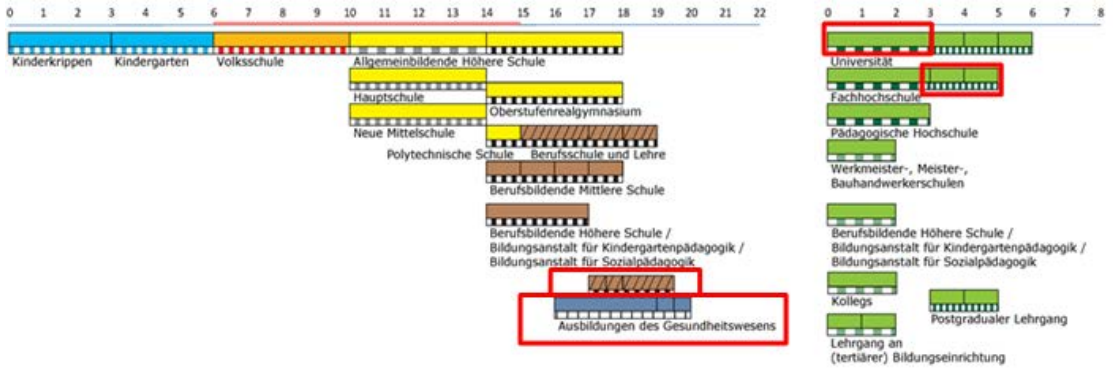
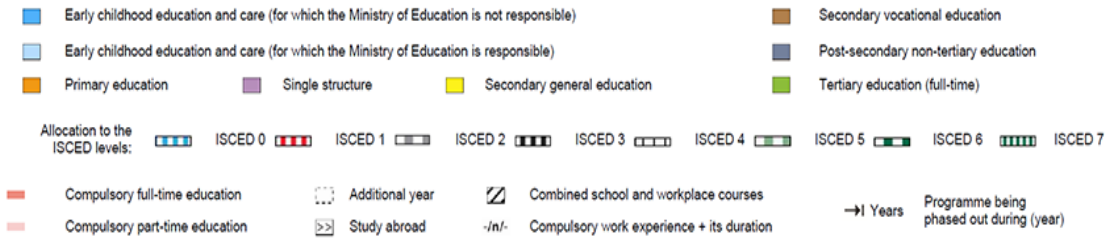
Appendix I: Education systems in the partner countries and allocation of relevant qualifications

All graphs in this chapter were taken from the Eurydice database (http://eacea.eu.europa.eu/national-policies/eurydice/). Allocation of qualifications is marked red. Information in the boxes was provided by the project partners and validated in the expert workshops (see chapter 6: development of the competence matrix 'Professional Care'). Information on qualifications in the field of elderly care is provided separately in some cases. This was done for a better presentability only and has no content-related meaning.

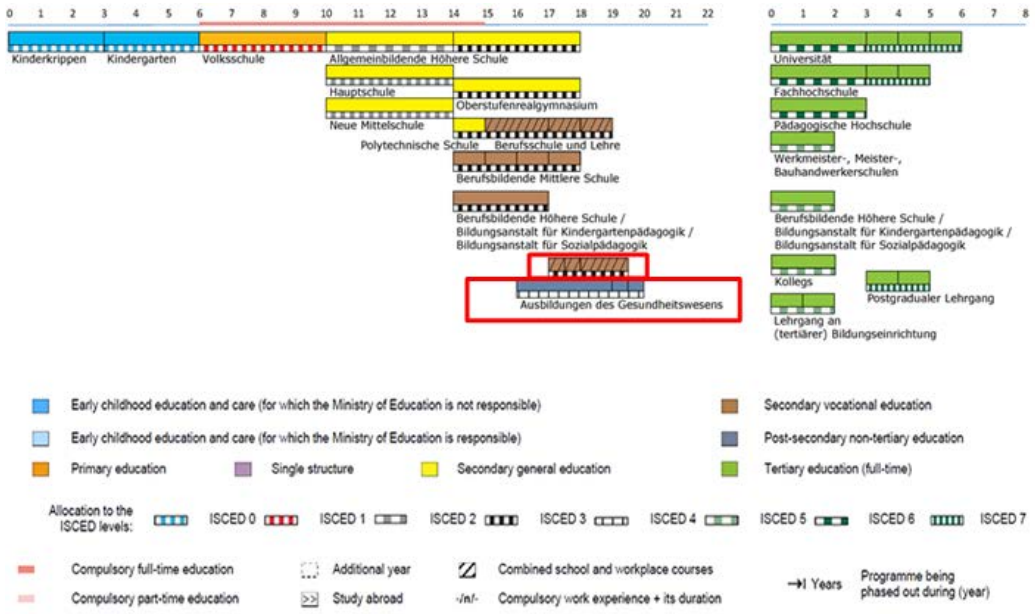
Austria: Nursing





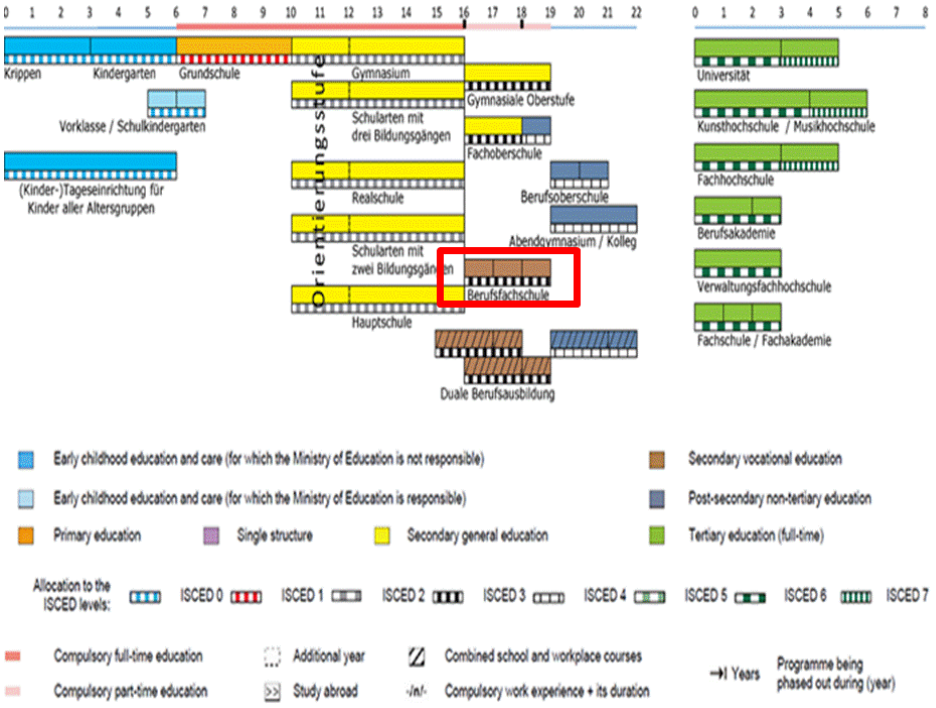
Qualified nursing (regulated profession):	Assistant nursing (regulated profession):
(1) Duration 3 years (4,600 hours), ISCED 4, post-secondary non tertiary education Health care and nursing schools (2) Duration: 3 years, ISCED 6, tertiary education Bachelor program at a university of applied science (UAS) (3) Duration 2 years, ISCED 7, tertiary education,Master program at technical collages	(1) Duration: 1 year (1600 hours), ISCED 3, secondary education Health care and nursing schools

Austria: Elderly Care



Elderly care (non-regulated profession):
(1) Duration 2 years, ISCED 3, secondary education School for social care workers (2) Duration 3 years, ISCED 4, post-secondary education School for social care workers Though a formal training at assistant level does not exist but is are training modules in “home helps” offered by several technical colleges, training centres and other institutions such as “Caritas”, “Johanniter”, “Berufsförderinstitut or “Rotes Kreuz” (duration: 400h)

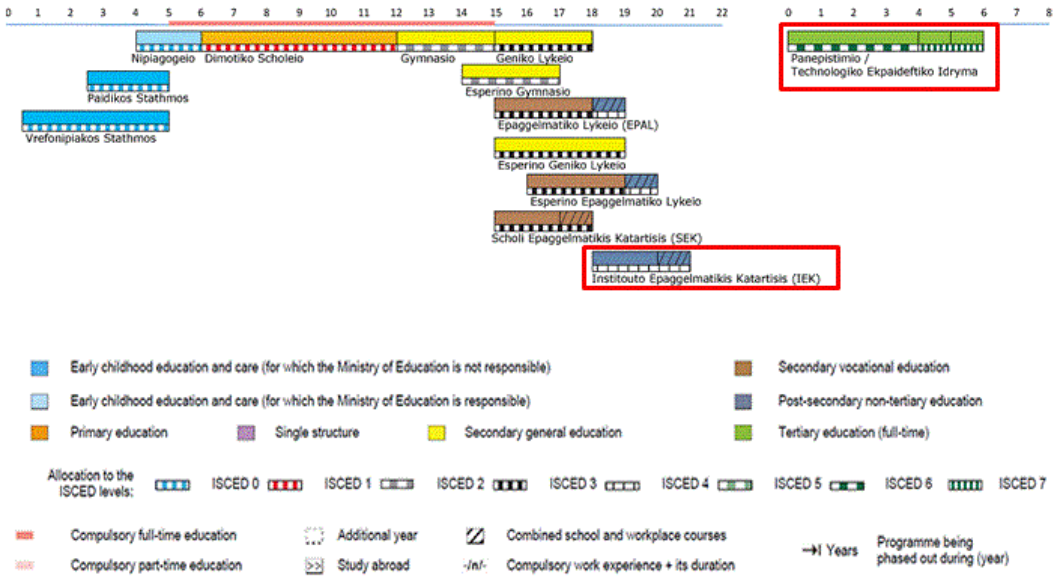
Germany: Nursing and Elderly Care



Nursing		Elderly Care	
Qualified General Nursing (regulated profession)	**Assistant Nursing (regulated profession at national level only)**	**Elderly Care (regulated profession at national level)**	**Assistant in Elderly Care (regulated profession at national level)**
Duration 3 years, ISCED 4, post-secondary non tertiary education	Duration 1-2 years, ISCED 3 or 4, secondary education or post-secondary non tertiary education	Duration 3 years, ISCED 4, post-secondary education	Duration 1-2 years, ISCED 3 or 4, secondary education or post-secondary non tertiary education

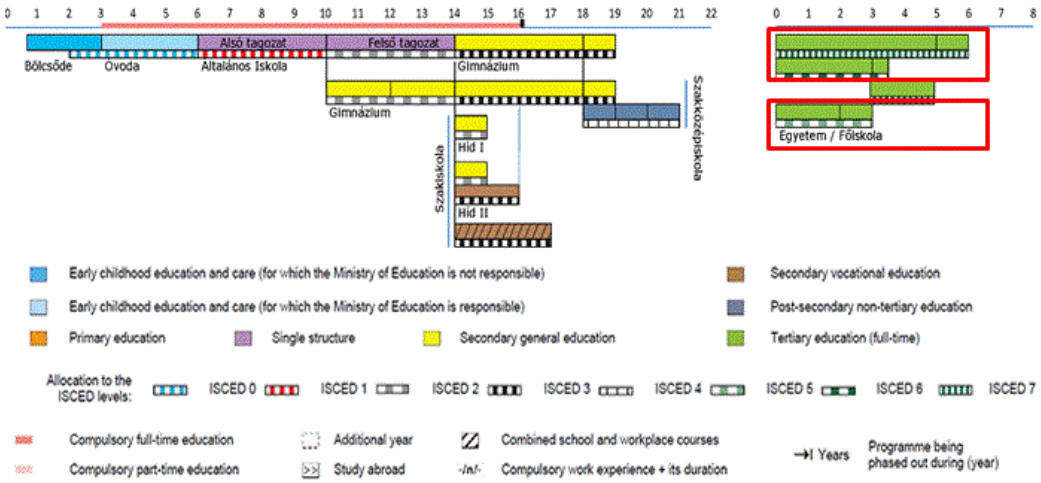
Provision of all qualifications is a at post-secondary non-tertiary level in so-called health care and nursing schools .

Greece: Nursing



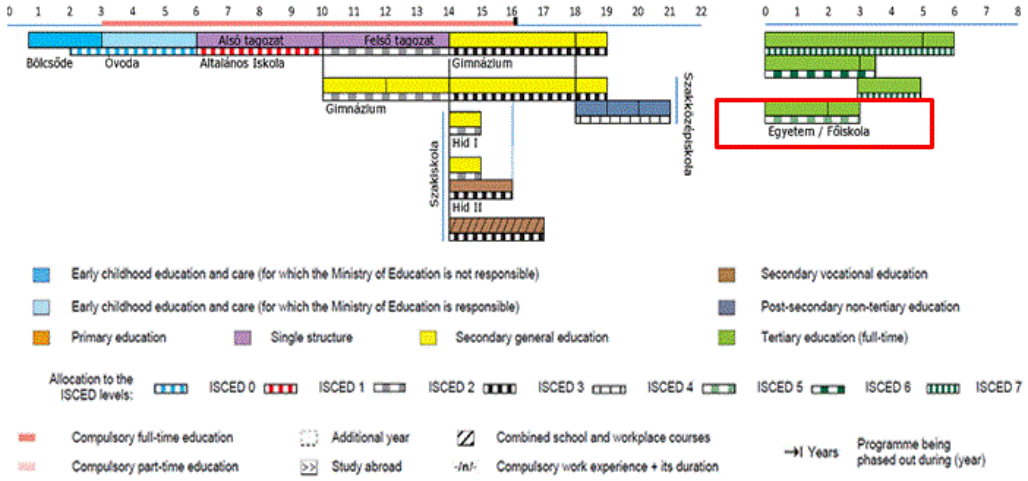
Qualified general nursing (regulated profession):	Assistant nursing (regulated profession):
(1) Duration Bachelor: 4 years, ISCED 6, Tertiary education Technological educational Institute (TEI) (2) Duration Master: 2 years, ISCED 7, Tertiary education Technological educational Institute (TEI)	(1) Duration 3 years, ISCED 3, secondary education Epaggelmatiko Lykeio (EPAL) (Engl.: Professional Lyceum) (2) Duration 1-2 years, ISCED 4, post-secondary education Institute Epaggelmatikis Katartisis (IEK) (Engl.: Institute of Vocational Training)

Hungary: Nursing



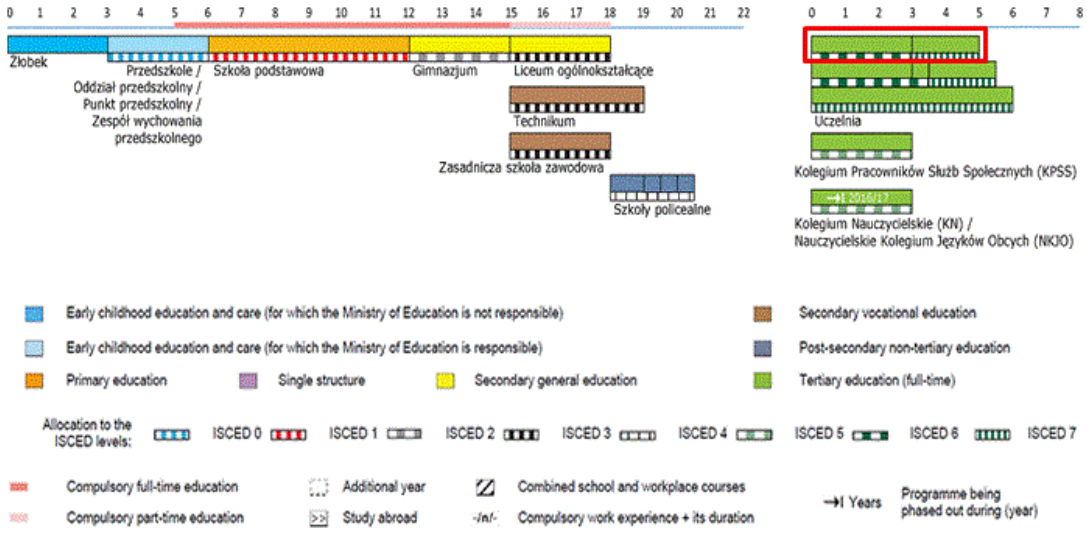
Qualified general nursing (regulated profession):	Assistant nursing:
(1) Duration 8 semesters, ISCED 6 level, tertiary education Bachelor program at the university level (2) Duration 3 semesters, ISCED 7 level, tertiary Education Master program at the university level	(1) Duration 10 months, ISCED 5 level, higher vocational education and training at a TVET college

Hungary: Elderly Care



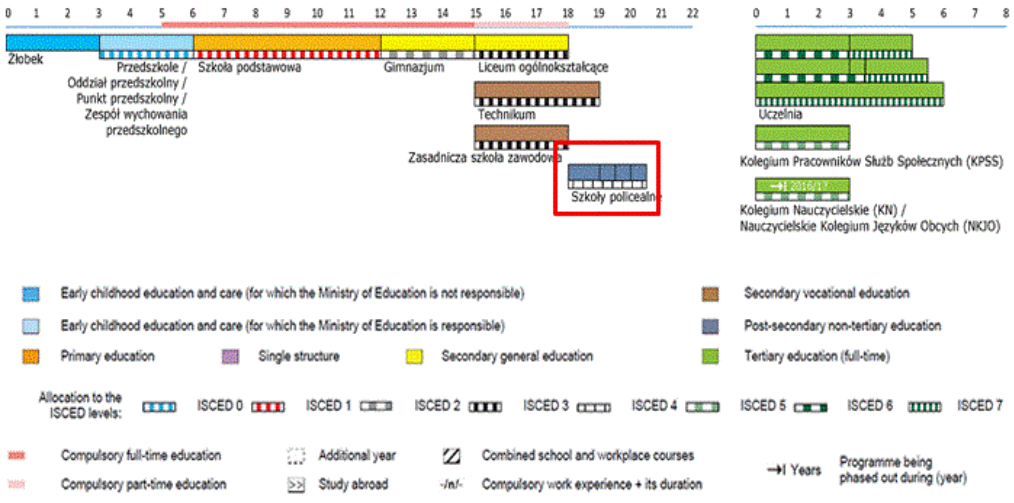
Elderly Care:	Assistant in Elderly Care (social worker and nurse):
(1) Duration 10 months, ISCED 5 level, higher vocational education and Training at a TVET college	(1) Duration 10 months, ISCED 5 level, higher vocational education and Training at a TVET college

Poland: Nursing



Qualified General Nursing (regulated profession)
(1) Duration Bachelor: 3 years, ISCED 6, Tertiary education at university level
(2) Duration Master: 2 years, ISCED 7, Tertiary education at university level

Poland: Elderly Care



Elderly Care (non-regulated profession)
(1) Duration: 1-2 years, ISCED 4, post-secondary education schools for caregivers

Appendix II: List of additional documents and regulations (competence descriptions, curricula and regulations) that were considered for the first draft of the two separate matrices

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