



Swiss EQF-Referencing Report

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Research and Innovation SERI**

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Executive summary

This referencing report explains how the Swiss national qualifications framework (NQF) for vocational and professional education and training (VPET) qualifications maps onto the European qualifications framework (EQF) in accordance with the criteria and procedures specified by the EQF Advisory Group. The referencing relates the NQF VPET levels and descriptors to the EQF, thereby enabling comparisons to be made with other countries' qualifications.

Vocational and professional education and training plays an important part in the Swiss education system. Two-thirds of young people embark upon their professional careers with such training. With its 230 or so different apprenticeship professions, vocational education and training establishes a solid basis for gaining a foothold on the employment ladder, with the opportunity to obtain an advanced qualification or pursue a specialist option. Further education pathways specifically include the Federal Vocational Baccalaureate, which provides access to universities of applied sciences, and also tertiary level professional education and training.

Tertiary level professional education and training is virtually unique in Europe. It provides specific professional training and prepares students for management and specialist roles. Together with university education, it constitutes the tertiary level of the Swiss education system. Vocational and professional education and training is of a very high quality and focuses on the skills that the job market actually needs. This direct connection with the world of employment is one reason for Switzerland's relatively high labour force participation rate and its continuing low youth unemployment rates.

Vocational and professional education and training provides the next generation of qualified managers and skilled workers. If young people are to continue choosing VPET, the prospects and development opportunities it offers need to be attractive and well publicised. Alongside the Federal Vocational Baccalaureate and universities of applied sciences, tertiary level professional education and training plays a key role. With around 26'000 graduates each year, it makes a significant contribution towards providing the economy with qualified managers and skilled workers. Together with university leavers they provide the economy with an optimum mix of highly qualified skilled labour with practical and theoretical training. This mix is of key importance for Switzerland's competitiveness.

However, with the growing internationalisation of the economy and the labour market, those with Swiss VPET qualifications are increasingly competing against people who have foreign qualifications. Differences between education systems make it difficult to assess and compare the value of particular qualifications. Tertiary level professional education and training in particular is virtually unknown abroad. Employers in Switzerland and elsewhere who are unfamiliar with the Swiss VPET system therefore tend to favour job applicants with internationally familiar university titles such as Bachelor or Master.

To highlight the level and value of Swiss VPET training, it is becoming increasingly important for vocational and professional qualifications to be comparable and transparent. An important step in this direction is being made with the creation of a national qualifications framework for VPET qualifications and its subsequent referencing to the European qualifications framework, as well as the issuing of certificate supplements (for vocational education and training qualifications) and diploma supplements (for tertiary level professional education and training qualifications).

The NQF VPET is a subsidiary framework for formal VPET qualifications and, like the European qualifications framework, consists of eight levels and three categories.

Although level one of the NQF VPET will not contain any qualifications, an eight-level matrix structure has been retained. This has hugely simplified all the work, as the levels of our NQF VPET can lean on the EQF levels. This also makes the framework more understandable internationally, since the numbers correspond with the other frameworks, thereby making comparisons easier. From the effective date of the Ordinance (1 October 2014), all qualifications described by the Swiss Federal Vocational and Professional Education and Training Act as formal education and training¹ are to be individually assigned

¹ VPETA Art 2.

to this framework. This means that each of the 730 or so qualifications² will be individually and independently of their titles assigned to a particular NQF VPET level. As is customary in Switzerland, the assessment process is consensual and designed to be carried out in a partnership-based³ manner. Partners in the VPET system, labour organisations (social partners, professional associations and other responsible organisations and VPET suppliers) and the cantons (Switzerland's federal states) are closely involved. Qualifications are assessed according to the professional competences upon which they are based. These include all the necessary competences that graduates must have acquired by the end of their training in order to practise the occupation in question, and that they have to demonstrate in an examination.

In Switzerland, each qualification will be assigned individually to the NQF VPET. This means that, for example, a Federal Diploma of Vocational Education and Training for Chefs⁴ will be separately assigned based on learning outcomes and then might be assigned at NQF VPET level 4. This will be the case for most Federal Diplomas of Vocational Education and Training. However, there are some Federal Diplomas of Vocational Education and Training with learning outcomes that justify them being assigned to level 5. This may apply to the Federal Diploma of Vocational Education and Training for ICT specialists. The diagram below shows that each type of qualification, such as the Federal Certificate of Vocational Education and Training, Federal Diploma of Vocational Education and Training, Federal Diploma of Higher Education or Advanced Federal Diploma of Higher Education, may not necessarily be assigned to the same level even though it has the same title. Each qualification will be individually assigned in line with its learning outcomes. This results in a certain degree of scattering across different levels for each type of qualification.

The awarding body responsible for each qualification will initially assign the qualification within the NQF VPET themselves. This work is taking place in parallel to EQF referencing activities. It is therefore currently not possible to make any definitive statements regarding the levels to which qualifications will be assigned.

At present, the NQF VPET is therefore a largely empty framework that will gradually be filled with qualifications over the next few years. The definitive assignments to levels for individual qualifications will be published on the Internet in a publicly accessible list (www.sbf.admin.ch). This list will be updated every six months. Test assignments, pilot assignments for selected awarding bodies, the first few actual assignments made by awarding bodies and conclusions drawn from the Swiss education system lead us to expect that VPET qualifications will be distributed within the framework as shown in Figure 1. Completion of compulsory schooling should actually be placed at level one, but since no qualification is issued for this in Switzerland and since the framework only relates to vocational and professional education and training, level one will remain empty.

² SERI, 2015.

³ It is mandatory for partners to be involved in the management and development of the Swiss vocational and professional education and training system – see VPETA Art 1.

⁴ The English denomination of this specific title is a translation of the protected titles in the three official languages of Switzerland (German, French, Italian). There are no official protected titles in English for any of the official VPET qualifications. The translation of the titles serve the comparability and understanding of Swiss qualifications. In order to provide meaningful and consistent English translations a project has been launched together with the VPET stakeholders. As a result a paper has been adopted in November 2015 which explains the new structure of possible titles. These new titles are part of the NQF level proposal and will be included in the new certificate and diploma supplements. Until December 2015 none of the new translations are definitive, thus nor are the English title translations in this report. The new titles will be made public through the list of assigned qualifications. More information on the title project can be found here: <http://www.sbf.admin.ch/hbb/02477/02543/index.html?lang=de>, 9.12.2015.

NQF VPET level	Qualification Type			
8				Adv. Fed. Diploma of HE
7				
6				Adv. Fed. Diploma of HE (college)
5			Fed. Diploma of HE	
4		Fed. VET Diploma		
3	Fed. VET Certificate			
2				
1				

Figure 1: Levels assigned to different types of qualification (SERI, 2015). Individual VPET qualifications are explained in more detail in section 1.2.

- Federal Certificate of Vocational Education and Training, 2 years' vocational education and training at upper-secondary level
- Federal Diploma of Vocational Education and Training, 3-4 years' vocational education and training at upper-secondary level
- Federal Diploma of Higher Education, part-time tertiary level professional education and training
- Advanced Federal Diploma of Higher Education is a diploma from a college of higher, tertiary level professional education and training (minimum 2 years' academic study or 3 years' part-time study with work placement)
- Advanced Federal Diploma of Higher Education, part-time tertiary level professional education and training

This report does not cover the Qualifications Framework for the Swiss Higher Education Area (nqf.ch-HS). As they are governed by different regulatory authorities, these two frameworks are independently developed subsidiary frameworks, which are being referenced to the relevant European meta-frameworks separately and in parallel. No schedule currently exists for the self-certification of the nqf.ch-HS (see section 2.2). Although the two qualifications frameworks are not mapped directly against each other, they are both linked via the European meta-framework and are therefore in a clearly defined relation. They both have a results-oriented structure and exhibit the complementary nature of the two learning pathways, which are characterised by extensive permeability and illustrate the strengths of the Swiss education system. The creation of an overall framework at a later date is not ruled out, but neither the necessity nor the political mandate to do so exists at present.

Implementing the NQF VPET and assigning the 730 qualifications will be a priority for Switzerland over the next few years, and there are therefore no current plans to include non-formal qualifications in the NQF VPET. The aim is to assign all the formal VPET qualifications to the existing NQF VPET as quickly as possible.

This NQF VPET referencing report covers all the factors mentioned above in detail, and is made up of the following five chapters:

- Chapter 1** Overview of the Swiss education system and description of the characteristics of the VPET system that are relevant to the referencing process.
- Chapter 2** Scope of the NQF VPET within the context of the education system as a whole.
- Chapter 3** Elaborating and implementing the NQF VPET.

Chapter 4 Developing and implementing the NQF VPET in accordance with the referencing criteria issued by the EQF Advisory Group.

Chapter 5 Outlook.

Annexes

1 The Swiss education system

1.1 Responsibilities and overview

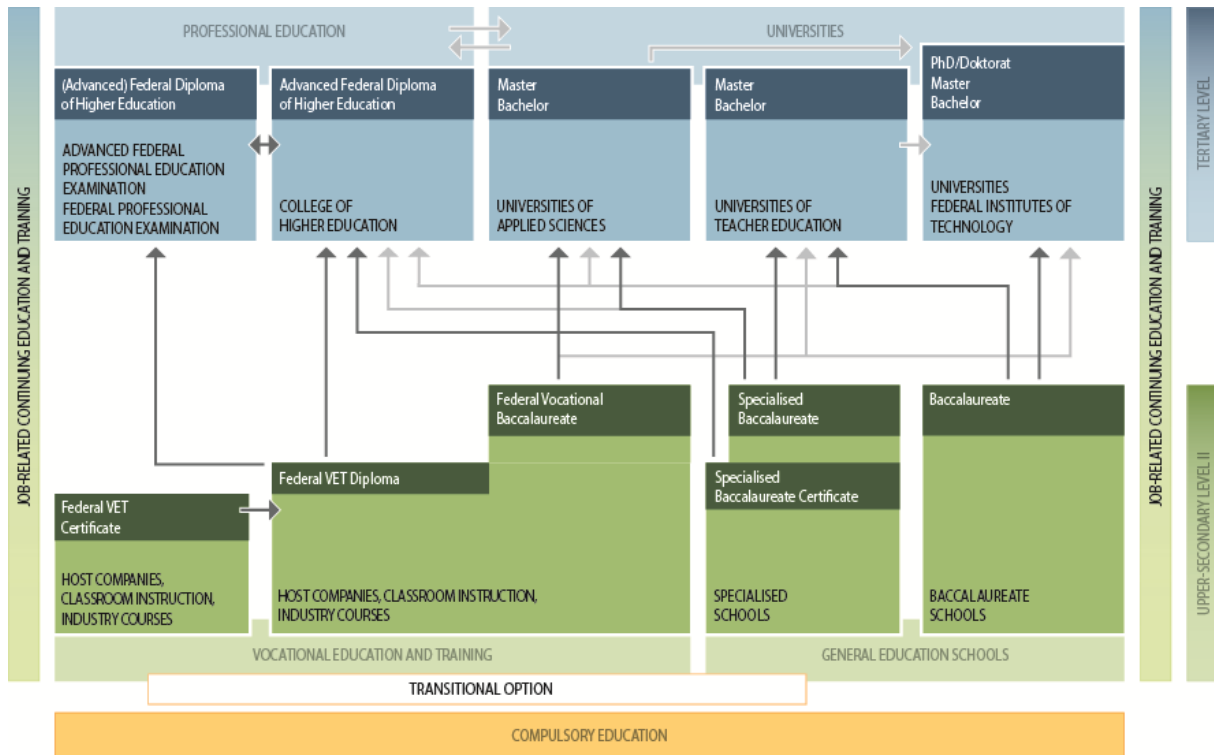


Figure 2: Diagrammatic overview of the Swiss education system (SERI, 2015)

In multilingual and federalist Switzerland, responsibility for the education system is divided between the Confederation (central government) and the cantons. Within the scope of their powers, they have since 2006 jointly ensured the high quality and accessibility of the Swiss education area⁵. Responsibilities for regulation, funding, implementation and supervision vary depending on the educational level and institution concerned.

Since 2013, the entire area of education, research and innovation has been consolidated at a federal level within the Federal Department (Ministry) of Economic Affairs, Education and Research (EAER). The State Secretariat for Education, Research and Innovation (SERI) within EAER is the Swiss Confederation's centre of excellence for national and international issues regarding education, research and innovation policy.

At a cantonal level, each canton has its own school and educational legislation. Cantonal governments are responsible for the strategic management and administration of education. Cantonal education authorities perform implementation and administrative functions. They are subdivided into departments and offices (e.g. the compulsory education office, the vocational and professional education and training office, and the university education office). In the case of issues requiring a common solution, the cantons coordinate amongst themselves. The Swiss Conference of Cantonal Ministers of Education plays an important role in this respect.

1.1.1 Pre-school, primary and lower-secondary education

Pre-school, primary and lower-secondary education at ISCED levels⁶ 0, 1 and 2 are classed as compulsory education. This usually lasts eleven years – two years at pre-school level, six years at primary level

⁵ Federal Constitution Art 61a.

⁶ According to ISCED 2011.

and three years at lower-secondary level. The minimum age for starting pre-school is decided by the cantons and is usually four years of age. Compulsory education generally finishes at the age of 15 or 16.

The cantons⁷ ensure sufficient basic schooling is available to all children and is free of charge at state schools. They are responsible for regulating and overseeing compulsory education, including pre-school. Primary schools and pre-schools are provided by municipalities. Lower-secondary schools may be managed by the canton or the municipality.

State schools play an important role in integration: children from different social, linguistic and cultural backgrounds all attend the same school. Most pupils in Switzerland (95%) complete compulsory schooling at the state school in the municipality in which they live.

The "Intercantonal Agreement on the Harmonisation of Compulsory Schooling" (HarmoS) has formed a basis for harmonising the duration, key objectives, content and transitions in compulsory education in the different cantons.⁸ This agreement came into force in 2009 and is being implemented over a six-year transition period, to be completed by the start of the 2015/2016 academic year at the latest. The common curriculum for harmonising compulsory education is intended to cover eleven school years in total, consisting of two newly introduced years of compulsory kindergarten followed by six years of primary school and three years of lower-secondary education. Prior to HarmoS 86% of children in Switzerland attended kindergarten; in 15 cantons, attendance was already compulsory.⁹

1.1.2 Upper-secondary education

Upper-secondary education at ISCED level 3 is classed as post-compulsory education. It includes baccalaureate schools, upper-secondary specialised schools and vocational education and training. Young people usually start upper-secondary education at age 15 to 16 and finish it at age 18 or 19.¹⁰

Baccalaureate schools and upper-secondary specialised schools

The cantons are responsible for baccalaureate schools and upper-secondary specialised schools. In the case of non-specialist upper-secondary schools, the power to enact legislation lies primarily with the cantons. An agreement between the federal government and the cantons governs the recognition of baccalaureate certificates.

The cantons provide the schools, overseeing and funding them. The federal government and the cantons are jointly responsible for the recognition of the baccalaureate across Switzerland. The recognition of upper-secondary specialised schools and their qualifications is governed by inter-cantonal regulations. Baccalaureate schools and upper-secondary specialised schools do not prepare pupils for careers, instead preparing them for tertiary-level academic courses (chapter 1.1.3).

⁷ Federal Constitution Arts 19 and 62.

⁸ Key components of HarmoS: <http://www.edk.ch/dyn/11659.php> (20.11.2014).

⁹ Swiss Conference of Cantonal Ministers of Education (EDK), 2014; Eurypedia, 2014; Swiss Coordination Centre for Research in Education, 2014.

¹⁰ Eurypedia, 2014.

Vocational education and training

Vocational education and training is regulated by the federal government. The Federal Act on Vocational and Professional Education and Training defines vocational and professional education and training as the shared task of the federal government, cantons and professional organisations.¹¹ The cantons are responsible for delivering vocational and educational training. They oversee it, supply the majority of its public funding and provide educational establishments. The federal government is responsible for the strategic management and development of all vocational and professional education and training, and contributes to its funding. The professional organisations and businesses perform the important task of providing practical vocational and professional training, and contribute to its funding.

On vocational and professional training programmes, young people learn professions. Vocational education and training takes place within a dual system, with students spending the majority of their time in training companies and attending supplementary schooling (chapter 1.2). Vocational education and training can also be acquired entirely within a school setting, for example via courses at a commercial college. Additional general education can be acquired either during or after vocational education and training by means of the Federal Vocational Baccalaureate, thereby providing access to tertiary-level educational courses (chapter 1.1.3).

Bridge-year courses

Bridge-year courses are practical, workplace-related courses taken after the end of compulsory education. They focus on the requirements of vocational education and training. Bridge-year courses are intended to support young people in their choice of career and get them established in the world of work. They prepare them in readiness for vocational and professional education and training or general education at upper-secondary level. Key skills are nurtured and individual shortcomings addressed. Bridge-year courses are voluntary, and some are fee-based. They have specific admission procedures and usually last up to one year.

1.1.3 Tertiary level education

University courses and tertiary level professional education and training outside universities are assigned at ISCED levels 6 and 7. Start and finish ages can vary significantly.

University education

Switzerland's various universities (cantonal universities, federal institutes of technology (ETH), universities of applied sciences and universities of teacher education) offer a wide range of academic and practical courses.

As laid down in the Swiss Constitution¹², the federal government and the cantons jointly coordinate and assure the quality of Swiss universities. In so doing, they take account of the universities' autonomy and their various different awarding bodies. In accordance with the Federal Act on the Funding and Coordination of the Higher Education Sector (HEdA), which came into force in 2015, the federal government and cantons are now jointly responsible for the coordination, quality and competitiveness of Swiss universities.

The federal government is the provider for the ETH sector, which consists of the Zurich and Lausanne Federal Institutes of Technology. Since 2000, the ETH sector has been run by the Federal Council with a performance mandate and global budget, based on the Federal Act on the Federal Institutes of Technology (FIT).

Cantons are usually the providers for universities, universities of applied sciences and universities of teacher education. Some universities of applied sciences and mainstream universities have private

¹¹ "Professional organisations" is an umbrella term. Awarding bodies may be social partners, professional associations, industry organisations or other organisations or vocational education providers. Their members are companies (corporate bodies) and professional people (private individuals). Glossary of VPET, 2014, page 146. VPETA Art. 1. This does not necessarily need to be a qualification-awarding institution.

¹² Federal Constitution Art 63a.

awarding bodies. According to HEdA, universities have to be institutionally accredited in order to receive the appropriate designation rights. However, the accreditation of study programmes (programme accreditation) is voluntary apart from in the healthcare sector.

Institutional accreditation is also a prerequisite for granting federal funding to cantonal universities and universities of applied sciences. With regard to funding, it is the cantons that provide most of the public funding, although the federal government does make a substantial contribution as well. In addition, universities finance themselves via second-party and third-party funding.

Tertiary level professional education and training

Tertiary level professional education and training (Federal Diploma of Higher Education, Advanced Federal Diploma of Higher Education and Advanced Federal Diplomas of Higher Education from colleges of professional education and training) enable experienced professionals to enhance their knowledge and develop management skills. The VPET system is described in detail in chapter 1.2.

The federal government has a comprehensive regulatory remit with regard to vocational and professional education and training. However, the VPET sector is run jointly with the cantons and the business world (professional organisations) in what is referred to as the tripartite partnership arrangement (chapter 1.2.1).

1.1.4 Continuing education and training

Many educational courses that are typically classed as continuing education and training, adult education or university courses elsewhere in Europe are in Switzerland classed as tertiary level professional education and training, and lead to a formal qualification. Skills acquired through informal training prior to the Federal Diploma of Higher Education Examination and the Advanced Federal Diploma of Higher Education Examination are recognised in the form of the Federal Diploma of Higher Education or the Advanced Federal Diploma of Higher Education – formal qualifications that are recognised throughout Switzerland and are quality-assured.

The continuing education and training sector displays a high degree of diversity with regard to responsibilities, regulations, funding and provision. Continuing education and training is organised predominantly on a commercial basis. Private individuals play a key role as providers and suppliers of continuing education and training, and also in its funding. The federal government and the cantons usually adopt a secondary role. They intervene in those areas of continuing education and training where the intended objectives and results would not be achieved without appropriate regulation and funding. Both federal government and the cantons regulate certain areas of continuing education and training. In fulfilling the constitutional provision on continuing education and training¹³, the law restricts itself to defining basic principles regarding responsibility, quality, taking prior experience into account in formal education, improving equal opportunities, and also competition. These principles are geared primarily towards specific legislation at a federal and cantonal level. Specific federal legislation also defines standard prerequisites for subsidising continuing education and training.

Continuing education and training is defined as non-formal education.¹⁴ It includes education and training that takes place in the form of organised courses, learning programmes and defined teaching/learning relationships outside formal education. The Federal Act on Continuing Education and Training is designed as framework legislation, and does include any content-related or curriculum-related provisions. It recognises the principle of taking prior experience into account in formal education. This ensures there are opportunities to transfer from non-formal and informal education to formal education.

1.1.5 Opportunities to transfer between educational levels

The Swiss education system is characterised by a high degree of accessibility, which encourages mobility between educational levels. Around 94% of young people complete some form of upper-secondary

¹³ Federal Constitution Art 64a.

¹⁴ Continuing education and training (non-formal education): structured education outside the framework of formal education.

post-compulsory education after finishing their compulsory education. This gives them the opportunity to enter a profession immediately after their vocational education and training, gain additional qualifications in tertiary level professional education and training or, with a baccalaureate, continue their education at university. Bridge-year courses are available after compulsory education for pupils who have not performed well at school and are unable to find an apprenticeship.

Once they have completed their vocational education and training and gained a few years of work experience, students can continue their education by taking an Advanced Federal Diploma of Higher Education at a College of Higher Education, a Federal Diploma of Higher Education or an Advanced Federal Diploma of Higher Education. In conjunction with preparatory courses and admission procedures, completing a tertiary level professional education and training course permits students to study at a university of applied sciences. Students with a Federal Vocational Baccalaureate are also able to enter universities of applied sciences. The Federal Vocational Baccalaureate can also be supplemented with a "Federal Vocational Baccalaureate – Universities" aptitude test (see light grey arrows in Figure 2), thereby providing access to universities, federal institutes of technology and universities of teacher education.

Upper-secondary specialised schools are full-time upper-secondary schools that provide an in-depth general education and offer a range of vocational subjects. The upper-secondary specialised school certificate provides access to colleges of professional education and training for the relevant profession. Students who also have a specialised baccalaureate have access to the relevant courses at universities of applied sciences or, with supplementary general education, can study at a university of teacher education.

Students with a baccalaureate can study at a university, federal institute of technology or university of teacher education. With an additional year-long vocational placement in the relevant specialist area, they can also study at a university of applied sciences (Figure 2, light grey arrow).¹⁵

There is no strategy for lifelong learning in Switzerland because the educational system is extremely permeable. However, in the Federal Dispatch for the Act on Continuing Education and Training¹⁶, lifelong learning is defined as a top-level term for formal, non-formal and informal education and training. Learning takes place in a variety of contexts and forms and is not tied to a single stage of life such as adolescence or employment. For a number of years now, this fact has underpinned the term "lifelong learning" in its literal meaning. It includes learning in formal situations, i.e. in courses that are state regulated and lead to a tertiary level professional education and training qualification or an academic degree, non-formal education and training in courses, seminars, etc., and also informal individual education and training that people acquire through studying technical literature, learning within the family or carrying out voluntary work.

The Swiss educational system is designed in such a way that essentially all formal qualifications can be gained irrespective of age. It also provides for the broad-based principle of recognising non-formal and informal prior experience in formal education and training (Article 7 of the Federal Act on Continuing Education and Training), thereby enabling flexible learning pathways.

1.2 The Swiss vocational and professional education and training system

More than two thirds of young people in Switzerland decide to undergo vocational education and training. In 2012, 77'000 people embarked upon such training (Figure 3). Vocational education and training enables young people to gain a foothold on the employment ladder, and provides the next generation of qualified managers and skilled workers. The training courses are geared to vocational qualifications for which there is demand on the job market. Job availability depends on the economy's current and future staffing requirements. This means that the number and type of courses on offer are determined by the market itself (they are demand-oriented). Vocational and professional education and training is

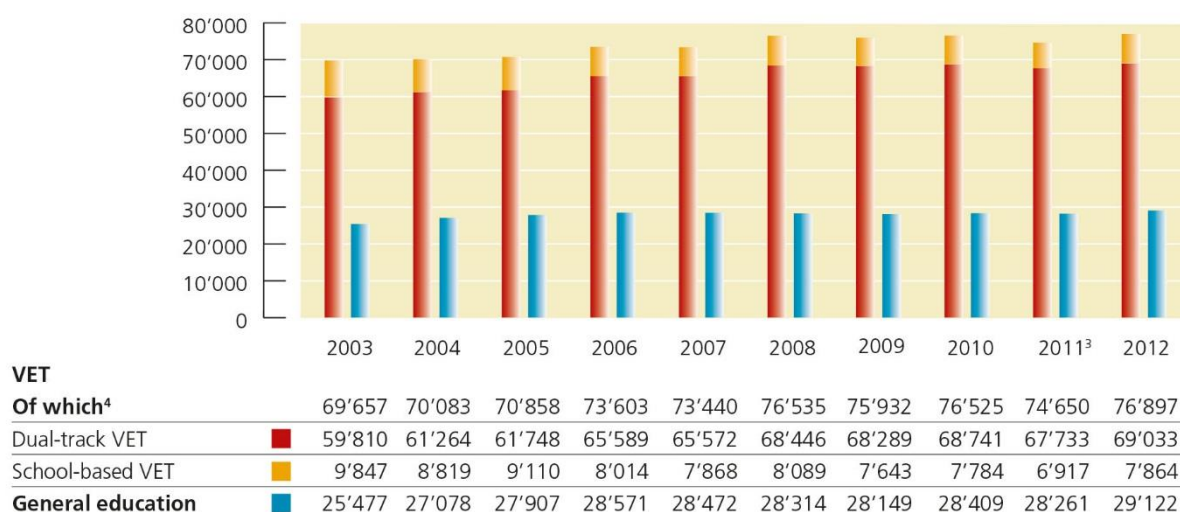
¹⁵ EDK, 2003; EDK, 2014; OECD, 2009; SCCRE, 2014.

¹⁶ 13.038 Federal Dispatch for the Federal Act on Continuing Education and Training of 15 May 2013, section 1.1.1.

based on clearly defined education programmes and national qualification procedures. Vocational education and training takes place at upper-secondary level, while tertiary level professional education and training takes place at tertiary level. These programmes take account of the differing abilities and needs of the various age groups.¹⁷

As the above figures demonstrate, vocational and professional education and training is an attractive way to start a career in Switzerland. VPET qualifications are highly regarded in Switzerland and are even the first choice of very able pupils. Vocational and professional education and training is not seen as an easy way out or as a last resort for people who do not have any other options. This is illustrated by the fact that, in the Swiss dual system, certain occupations which are predominantly positioned at tertiary level in other countries are taught at upper-secondary level (for example healthcare).¹⁸

Enrolment in upper-secondary level²



VET

Of which ⁴	2003	2004	2005	2006	2007	2008	2009	2010	2011 ³	2012
Dual-track VET	59'810	61'264	61'748	65'589	65'572	68'446	68'289	68'741	67'733	69'033
School-based VET	9'847	8'819	9'110	8'014	7'868	8'089	7'643	7'784	6'917	7'864
General education	25'477	27'078	27'907	28'571	28'472	28'314	28'149	28'409	28'261	29'122

² Federal Statistical Office (2014h)
³ Excl. canton Ticino
⁴ Incl. commercial and IT schools, excl. informal two-year apprenticeships

Figure 3: Enrolment in upper-secondary education and training (SERI 2015)

In legislative terms, vocational and professional education and training is enshrined in the Federal Act of 13 December 2002 on Vocational and Professional Education and Training.¹⁹ This law promotes and devises a VPET system that enables individuals to develop both professionally and personally, and helps them to integrate into society, particularly in the world of work. It also promotes a VPET system that serves to boost companies' competitiveness and strives to provide equal opportunities and also opportunities to transfer between different educational programmes and fields. The Federal Act on Vocational and Professional Education and Training²⁰ brings together all fields of vocational and professional education and training, and has contributed towards expanding the range of vocational and professional training courses that are available.

1.2.1 Characteristics of the VPET system

The principles described below apply to the entire VPET system in Switzerland; in other words, to vocational education and training at upper-secondary level and also professional education and training at tertiary level.

¹⁷ SERI, 2015.
¹⁸ Swiss Education Report 2014, page 169 (Swiss version).
¹⁹ VPETA, 2002.
²⁰ OECD, 2009; VPETA, 2002.

Tripartite partnership arrangement

Vocational and professional education and training in Switzerland is the joint responsibility of the federal government, the cantons and professional organisations. "Professional organisations" is an umbrella term. Awarding bodies may be social partners, professional associations, industry organisations or other organisations or vocational education providers. Their members are companies (corporate bodies) and professional people (private individuals). Insofar as they are able and depending on their anticipated demand for skilled labour, companies provide training positions for practical vocational training, thereby ensuring a future supply of skilled staff. Their involvement in vocational and professional education and training is largely voluntary, but is in their own interests.

Together, the three partners are committed to providing high-quality vocational and professional education and training, and aspire to provide a sufficient number of apprenticeships and continuing education and training courses.²¹ At a federal level, the SERI is responsible for the strategic management and development of the VPET system. The professional organisations define education and training content and national qualification procedures, and also develop educational courses. The cantons are responsible for enforcing the Federal Act on Vocational and Professional Education and Training. They oversee apprenticeship contracts and vocational schools, and provide vocational, study and careers guidance.²²

The federal government, cantons and professional organisations jointly contribute towards funding vocational and professional education and training. The cantons pay three-quarters of the costs, while the federal government provides a quarter of the public funding. The professional organisations carry out basic groundwork, manage their own VPET institutions and promote their professions, thereby also contributing towards funding.²³

Focus on the labour market

The qualifications gained via the VPET system are based on the demands of the labour market and the requirements of companies. The skills acquired equate to the activities of qualified staff, and are gained in a real working context. According to VPETA Article 15, a "qualification" is the acquisition of the knowledge and skills necessary to carry out an activity within a profession. Qualifications are therefore more than just pieces of paper or strictly required technical or professional competences, and promote personal development. Consequently, a qualification in a particular occupation reflects not only the competences required for that occupation, but also includes across-the-board competences. The term "qualification" should be understood in a broad sense. It is not just about training professionals to do certain repetitive tasks – employability is fundamental, as is vocational flexibility. Vocational education and training therefore establishes professional competences of a certain breadth so that trainees can subsequently survive in the job market and take on other roles, or possess the basis for a successful career.

The guiding principle is the duality of practical workplace training and theoretical school-based learning. From the start of their training, students attend a vocational school for one to three days a week (depending on their profession, what year they are in and whether they are attending a vocational baccalaureate school), and spend the remaining two to four days a week working in their training company. This means that students are involved in the company's working processes during their training and can be put to use as soon as they have qualified. Training places are provided by companies on a voluntary basis depending on their needs; the number of places is regulated by the market.

Involving professional organisations in VPET policy-making processes ensures that employers' needs are taken into consideration when vocational training is being designed. The involvement of professional organisations in developing qualifications is explained in more detail under criterion 3 (chapter 4.3). Close collaboration between partners also makes it possible to adapt VPET courses rapidly to changes in the labour market.²⁴ Professional organisations have a "bottom-up" involvement in the process. If they

²¹ VPETA, 2002.

²² SERI, 2015.

²³ Ibid.

²⁴ OECD, 2009.

identify a need for a new training course, they set up an awarding body for it. The professional organisation in question has to be able to prove that it is a national labour organisation in order to apply to SERI for a new educational basis. For vocational education and training, it has to apply for an ordinance; for tertiary level professional education and training examinations, it has to apply for examination regulations or framework curricula. In the case of colleges of professional education and training, an application for the inclusion of a new subject area must be submitted. Prior to this, the professional organisation must have demonstrated with the aid of analyses, key figures and studies that its request is justifiable in order for it to be considered by SERI. A similar procedure applies for amending existing training courses. An awarding body is formed in accordance with the regulations in the Federal Act on Vocational and Professional Education and Training²⁵ and the associated ordinance. This awarding body is responsible for the educational course in question. All VET ordinances also specify that a partnership-based "Commission for Development and Quality" must review the occupation every five years to ensure it is up to date and of a high quality.

The direct relationship of vocational and professional education and training with the world of work helps to integrate young people into the labour market. Switzerland has a low rate of youth unemployment:²⁶ in 2013, this figure stood at 8.5%.²⁷

Quality

Great importance is attached to quality at all levels and in all areas of the system. Quality assurance for the system as a whole is a matter for the federal government, while for individual areas of responsibility it is a matter for the partners involved. A separate specialist university-level institute (the Swiss Federal Institute for Vocational Education and Training, SFIVET) is responsible for training vocational school teachers and company-based trainers, developing curricula and conducting VPET research. Quality assurance is addressed in more detail under referencing criterion 5 (chapter 4.5).

Learning outcomes in the Swiss VPET system – professional competences

The aim of vocational education and training and tertiary level professional education and training is that students will, by the end of the learning process, have acquired the skills needed to practice their profession. In Swiss vocational and professional education and training, this aim is brought to bear in the concept of professional competences. Professional competences describe all the necessary skills that graduates must have acquired by the end of their training in order to practise the profession in question, and that are tested in their final examinations. In contrast to the "learning outcomes" used in the European qualifications framework (knowledge, capabilities and competences), professional competences, in line with vocational training's focus on the labour market, are competences required on the labour market, and explicitly include personal and social skills. Depending on the model used (see Annex 6.6), professional competences are subdivided into either technical competences, methodological competences, personal autonomy and social skills, or knowledge, abilities and attitudes. The focus on competences and the underlying models used to elaborate them are explained in more detail under criterion 3 (chapter 4.3).

Cost efficiency – VPET is worthwhile for employers and trainees alike

For companies and professional organisations, vocational and professional education and training is more than just a long-term investment in the next generation of young professionals. Since the productive work that students do during their training usually more than covers the cost of that training, vocational training is an economically attractive proposition for businesses. In the long term, training companies also benefit from recruitment and induction savings if they keep on their former trainees as skilled

²⁵ VPETA Art 1; VPETO Art 1.

²⁶ SECO definition of youth unemployment rate: the number of registered unemployed people aged 15-24 divided by the size of the labour force (4,322,899 people as of 1 January 2010) according to the 2010 structural survey conducted by the federal population census, multiplied by 100.

²⁷ Youth unemployment rate in 2013 according to the ILO, FSO: http://www.bfs.admin.ch/bfs/portal/de/index/themen/03/03/blank/data/02.html#parsys_00161, 6 February 2015.

staff. The companies themselves cover the trainees' salaries, their training costs and the business infrastructure that is provided. They do not need to buy extra machinery or set up a major training infrastructure – trainees work on real work processes and use the same infrastructure as permanent staff. In view of this, the dual VPET system is a cost-efficient means of training for companies and also the public sector.²⁸ The public sector is able to achieve considerable cost savings since trainees only attend publicly funded vocational schools one or two days a week rather than five days a week.

Balancing personal responsibility and support

Young people who choose to undergo vocational and professional education and training take personal responsibility for this decision. They choose their occupation and find an apprenticeship, acquire the necessary academic and vocational capabilities and demonstrate these in examinations. Young people who encounter problems before choosing an occupation or during training can find support. As well as careers information and advice, various measures are available such as bridge-year courses, coaching and mentoring programmes, individual counselling and VPET case management.

1.2.2 Vocational education and training

Vocational education and training leads to proven vocational qualifications and forms the basis for life-long learning. It includes two-year training programmes that lead to a Federal VET Certificate, and three or four-year programmes that lead to a Federal VET Diploma. Dual training in industry and vocational school is the most common type of vocational and professional education and training. As well as this dual training, a Federal Diploma of Vocational Education and Training can also be taught in a training workshop or, in the case of basic commercial training, can be completed at a commercial college. There is a choice of around 230 apprenticeship professions, which are distributed across the various qualification types as follows:



Figure 4: VET courses by qualification type (VPET Directory, SERI)

In 2012, over 5'000 people obtained a Federal Certificate of Vocational Education and Training and around 61'000 people obtained a Federal Diploma of Vocational Education and Training:

²⁸ SCCRE, 2014: Cattaneo & Wolter, 2011.

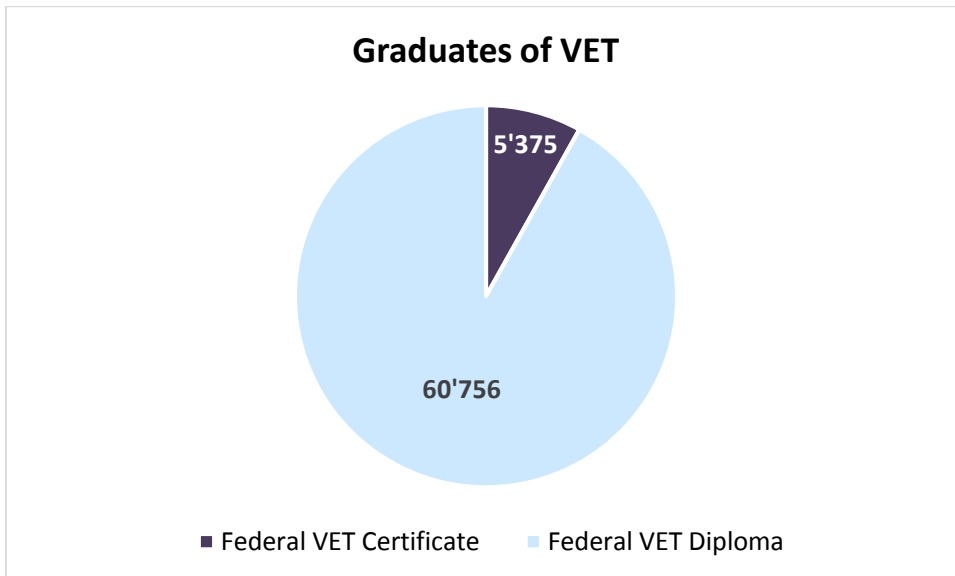


Figure 5: Number of VET graduates by qualification type, 2012 (FSO).

Practically inclined young people can embark upon vocational and professional education and training by taking a Federal Certificate of Vocational Education and Training course. They obtain a recognised qualification with an individual occupational profile. The majority of holders of a Federal Certificate of Vocational Education and Training continue to work in their chosen occupation after qualifying. The Federal Certificate of Vocational Education and Training can open up access to a Federal Diploma of Vocational Education and Training programme. Around 15% of Federal Certificate of Vocational Education and Training holders go on to study for a Federal Diploma of Vocational Education and Training. Admission requirements vary depending on the professions concerned. For some professions, the rules state that holders of a Federal Certificate of Vocational Education and Training can proceed straight to the second year of the corresponding Federal Diploma of Vocational Education and Training programme. Such rules are laid down in the VET ordinance for Federal Diplomas of Vocational Education and Training. If the VET ordinance does not contain any such rules, holders of a Federal Certificate of Vocational Education and Training must study the entire Diploma programme. However, the cantonal education authorities can reduce the duration of training on a case-by-case basis if requested to do so by a training company. These individual reductions in duration are possible for all Federal Certificate and Diploma programmes. The same continuing education and training courses are subsequently available as for Diplomas acquired in a regular way.

Example: Office assistant (Federal Certificate of Vocational Education and Training)	
Duration:	2 years
Admission requirements:	Completion of compulsory education. Certain companies also use admission examinations.
Occupational profile and activities involved:	Federal Certificate of Vocational Education and Training office assistants carry out mainly simple, standardised administrative tasks. They are able to use a variety of office and communication technology equipment. Their actions and conduct are service-oriented.
Admission entitlement for further qualifications:	For example, shortened commercial training course (Federal Diplomas of Vocational Education and Training)

The certified two-year VET programmes have replaced the starter and short apprenticeship schemes that were previously available, and are currently on offer for 53 different professions (as of January 2015). The professional organisation or awarding body decides if a two-year VET course is to be offered in its field. Prior to this, the labour market is investigated to establish demand, including the number of potential traineeships, interested companies and any competing VET courses or three/four-year courses

in the relevant field that could be supplemented. The certified two-year VET programmes must also have individual occupational profiles.

The Federal VET Diploma and Certificate programmes provide the skills needed to carry out a particular profession. The Federal VET Diploma and Certificate demonstrate that their holders have the prerequisites required by the labour market in order to practice a profession. The Federal Diploma of Vocational Education and Training provides access to tertiary level professional education and training or to continuing vocational education and training.

Example: Healthcare professional (Federal Diploma of Vocational Education and Training)

Duration: 3 years

Admission requirements: Completion of compulsory education with good grades

Occupational profile and activities involved: Healthcare professionals support and care for people in need. In healthcare and social facilities, they carry out tasks relating to care, nutrition and administration. They work in teams of experts and usually report to qualified care professionals. Healthcare professionals support ill, disabled and elderly people according to their needs and situation. They care for them and advise them. They take not only the patients' state of health but also their religion, culture, age and gender into account, as well as their habits, living conditions and environment. Healthcare professionals carry out simple medical procedures on behalf of their supervisors. For example, they may take clients' blood pressure, pulse and temperature, change dressings, take blood samples and administer injections, medication and special food.

Admission entitlement to further qualifications: For example: Bachelor of Science in Midwifery (university of applied sciences)

Example: ICT specialist (Federal Diploma of Vocational Education and Training)

Duration: 4 years

Admission requirements: Completion of compulsory education with good grades in science, maths and languages.

Occupational profile and activities involved: ICT specialists work in service, industrial and commercial companies and also in public administration. In the service sector, banks, insurance companies and software businesses etc. offer job opportunities. ICT specialists with a Federal Diploma of Vocational Education and Training design, develop, install, test, operate and maintain IT solutions. They work in inter-disciplinary teams developing new ICT products, solutions and processes, and implement, operate and maintain them. The tasks they perform depend on the specialist field in which they have been trained. There are three specialist fields: applications development (software professionals), systems technology (setting up and maintaining IT systems), and business computing (professionals working in both systems technology and software development).

Admission entitlement to further qualifications: For example: ICT applications developer (Federal Diploma of Higher Education)

General education subjects²⁹ apply to all two, three and four-year VET programmes and account for 120 lessons per year. This general education is intended to enable students to gain access to the world of work, hold their own in it and also integrate into society. Promoting linguistic, personal, social and methods-related skills, together with establishing professional skills, makes up the core of general education tuition at vocational schools. The core syllabus consists of two competency areas, each of which is

²⁹ General education subjects are governed in VPETA Art 15 and VPETO Art 19. This legislation forms the basis for the OPET Ordinance on the Minimum Requirements for General Education in Vocational Education and Training and the core syllabus for general education subjects in vocational education and training.

broken down into several educational objectives: "Language development and communication" and "Aspects of general education" (ethics, identity and socialisation, culture, ecology, politics, law, technology and business).

The Federal Vocational Baccalaureate enables students to acquire an extended general education and enables them to study at a university of applied sciences without taking an entrance examination. The Federal Diploma of Vocational Education and Training forms an integral part of the Vocational Baccalaureate course and is supplemented by the Vocational Baccalaureate final examination. This can be gained either in parallel to vocational education and training (Federal Vocational Baccalaureate I) or as a full-time or part-time course after completing vocational education and training (Vocational Baccalaureate II). Tuition for the Vocational Baccalaureate takes place at vocational schools.

The focus of vocational and professional education and training on the labour market is reflected in its three learning locations. In business, trainees learn practical vocational skills, knowledge and proficiencies while at the same time being actively involved in the company's production process. Vocational school provides academic tuition, including the theoretical basis for practising an occupation and also general education. Academic tuition takes up one to two days per week. In addition to training in the training company and at vocational school, external courses help students acquire basic practical skills that individual companies cannot offer due to their specialist nature. These external courses often take place at sector-specific centres.

1.2.3 Tertiary level professional education and training

Tertiary level professional education and training is regulated by the federal government. The federal government, cantons and professional organisations work together within their areas of responsibility. The cantons implement the PET system, provide educational establishments and oversee Colleges of Higher Education. The professional organisations determine course content, subject to government approval, manage educational establishments and provide preparatory courses and College of Higher Education courses. Private individuals may also offer preparatory courses and College of Higher Education courses. The federal government and the cantons participate in financing tertiary level professional education and training. Federal Diploma of Higher Education and Advanced Federal Diploma of Higher Education graduates and their employers provide the majority of funding for preparatory courses.

Tertiary level professional education and training is a peculiarity of the Swiss education system and is unique. It provides the skills needed to carry out challenging and responsible professional activities. Qualifications on offer include Federal Diplomas of Higher Education and Advanced Federal Diplomas of Higher Education, as well as Advanced Federal Diplomas of Higher Education from Colleges of Higher Education. A total of approximately 500 different qualifications are provided, as shown in the figure below. For Advanced Federal Diplomas of Higher Education from Colleges of Higher Education there are 33 framework curricula with 53 specialist fields, upon which the 450 or so recognised courses of study at various different Colleges of Higher Education are based. The content of some courses of study overlap, and they are therefore not counted as separate qualifications.

Example: Qualified air traffic controller (Advanced Federal Diploma of Higher Education from College of Higher Education)

Duration: Full-time training 2.5 years; 5'400 hours of tuition.

Admission requirements: Completion of upper-secondary school or commercial/technical apprenticeship (Federal Diploma of Vocational Education and Training). Preferably between 19 and 27 years of age. Job-specific aptitude test.

Occupational profile and activities involved: Air traffic controllers control and monitor take-offs and landings, and also traffic in the airspace assigned to them. In emergencies, they assist search and rescue services. They provide pilots with all the information they require regarding flight safety, punctuality and efficiency, and ensure minimum distances are maintained between planes.

Air traffic controllers work in various different locations, for example in air traffic control towers, approach control or area control centres. They also carry out military air traffic control activities for the Swiss Air Force and support military pilots in tactical aerial combat operations.

Admission entitlement to further qualifications: For example: Bachelor of Science in Aviation

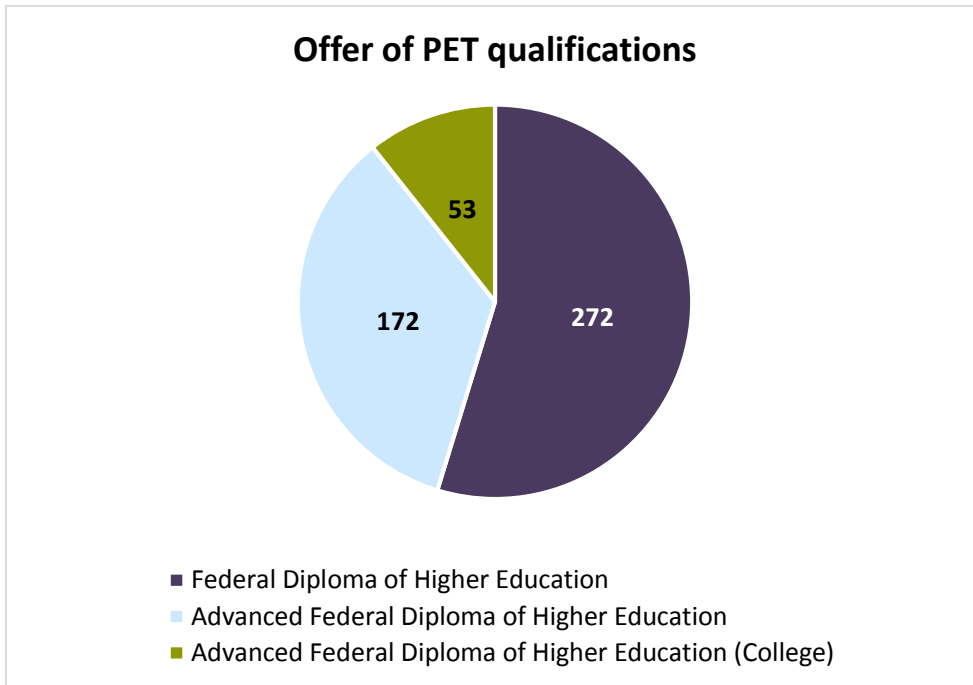


Figure 6: PET qualifications by type (VPET Directory, SERI)

In 2012, a total of 23'177 people gained PET qualifications. As shown in Figure 7, these were spread across different qualification types.

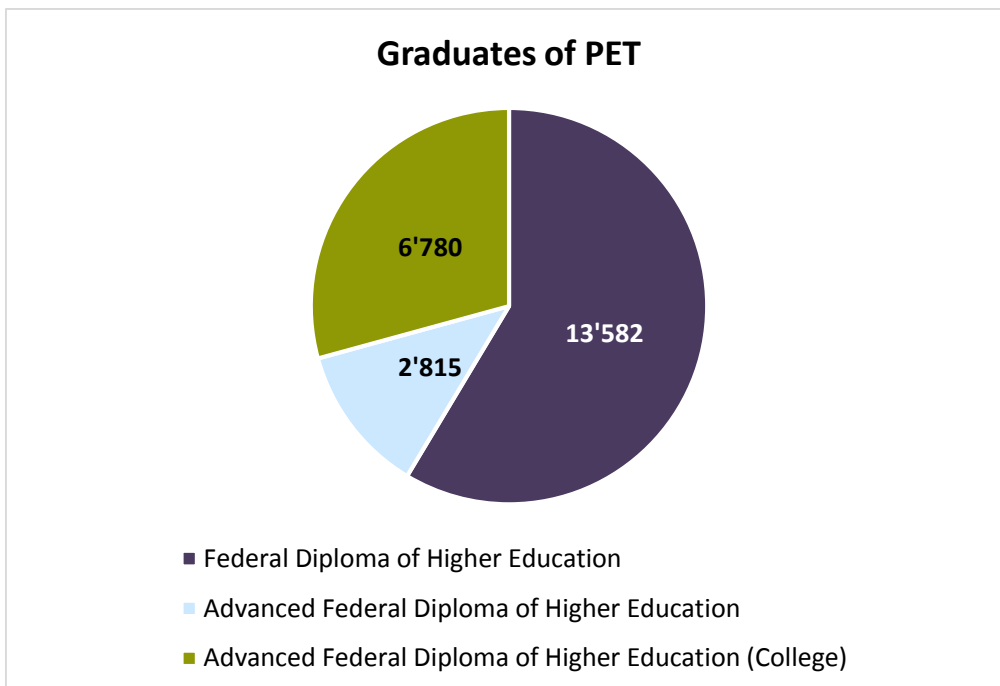


Figure 7: Number of PET graduates by qualification type, 2012 (FSO).

In other European countries, numerous qualifications that can be acquired in Switzerland via tertiary level professional education and training are mainly covered by academic courses of study, continuing

education and training or adult education. One example of this is the Advanced Federal Diploma of Higher Education in auditing. This qualification is "an indispensable prerequisite for obtaining a management position in the fiduciary and auditing sector...".³⁰ People who obtain this qualification have often already completed a university degree course. However, they may equally have undergone additional training following an apprenticeship. They take this course to further their careers in this business sector and gain a qualification that is well known and much sought after on the labour market.

The importance of tertiary level professional education and training can also be illustrated by means of

Qualified auditor (Advanced Federal Diploma of Higher Education)
<p>Duration: Duration and scope are not regulated.</p>
<p>Admission requirements: To take the examination, candidates must have:</p> <ul style="list-style-type: none"> • a Federal Diploma of Higher Education in finance and accounting, fiduciary administration, banking or computer science; or • a Bachelor's or Master's degree, or a licentiate, diploma or doctorate from a Swiss university or Swiss university of applied sciences; or • an Advanced Federal Diploma of Higher Education in economics (College of Higher Education); or • an Advanced Federal Diploma of Higher Education in taxation, fiduciary administration, banking, accounting and controlling or computer science, or • an equivalent Swiss diploma, or • an equivalent foreign diploma, comparable with the relevant Swiss credentials <p>and</p> <ul style="list-style-type: none"> • must have passed the required modular examinations • must not have a criminal record • must provide evidence of seven years' commercial experience, including at least three years as a qualified specialist, in other words they must have spent four main examination periods in their specialist field after having completed the training specified above
<p>Occupational profile and activities involved: Auditors check that companies have prepared their accounts correctly and ensure they are observing the relevant statutory requirements. As managers working in the field of auditing, they identify external and internal opportunities and risks.</p> <p>Auditors work as managers in auditing and business consulting companies, major enterprises, corporate groups and in public administration. They may also work as independent consultants, managing companies providing auditing or business consultancy services. They may also specialise in the following customer segments or fields: information technology, banking, industry, public administration and pensions</p>
<p>Possible further qualifications: For example: Bachelor of Science (university of applied sciences) in Business Administration, Master of Advanced Studies (MAS) in Financial Consulting (university of applied sciences), Executive MBA in Controlling and Consulting (university of applied sciences)</p>

ISCO major occupational groups. The graph below shows employed people³¹ assigned to selected ISCO major occupational groups by their highest qualification³² in 2012. It is noticeable that non-academic tertiary-level qualifications are well represented as the highest qualification in all three major

³⁰ Excerpt from the examination regulations for the Advanced Federal Diploma of Higher Education in auditing, page 5.

³¹ The population of the structural survey consists of all permanent residents aged 16 or over living in private households.

³² University/university of applied sciences education includes: Bachelor's degree, master's degree, licentiate, diploma, state examination, post-diploma, doctorate and professorship.

groups (managers, academic professions, and technicians and associated professionals). The importance of tertiary level professional education and training is particularly evident when one considers that 29% of managers possess a non-academic tertiary-level qualification.

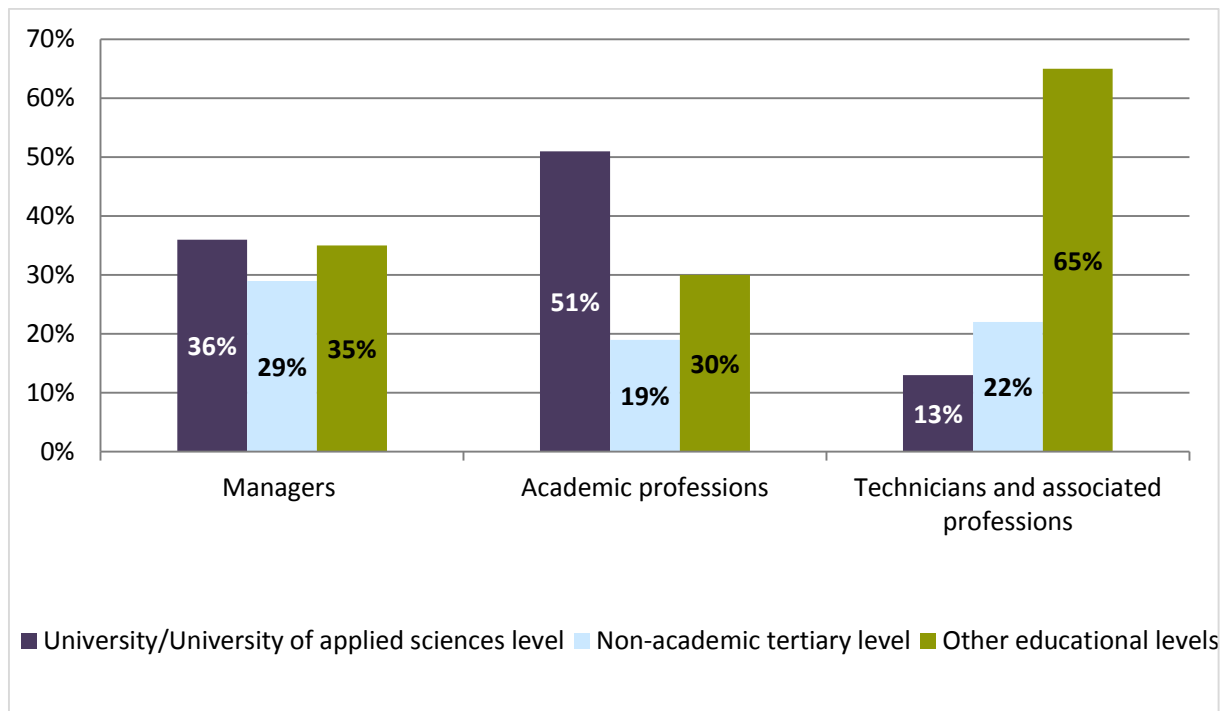


Figure 8: Highest qualification gained by ISCO major occupation group, 2012 (FSO, 2014)

Composition of tertiary-level education

The tertiary level of the Swiss education system consists of universities, federal technical institutes of technology, universities of applied sciences, universities of teacher education, and tertiary level professional education and training. The diversity of vocational and general education and training at upper-secondary level therefore extends to the tertiary level. Tertiary level professional education and training provides a wide range of advanced tailor-made qualifications in line with labour market requirements. In contrast, universities focus on scientific thinking, scientific methods and research. Universities of applied sciences are additionally characterised by practical instruction, job-oriented training and application-based research. Together with the universities, tertiary level professional education and training therefore provides the economy and society with an ideal mix of qualifications.

Non-academic tertiary-level education includes: Federal Diploma of Higher Education, Advanced Federal Diploma of Higher Education and master's examination, VET/College of Higher Education (2 years' full-time or 3 years' part-time study), VET/College of Higher Education incl. post-diploma (3 years' full-time or 4 years' part-time study). Other educational levels include: sum of the following categories: Federal Vocational Baccalaureate, Specialised Baccalaureate, baccalaureate, teacher training college, vocational education and training, intermediate diploma school, driving school, upper-secondary specialised school or similar, compulsory schooling and those with no qualifications at all. (FSO 2015).

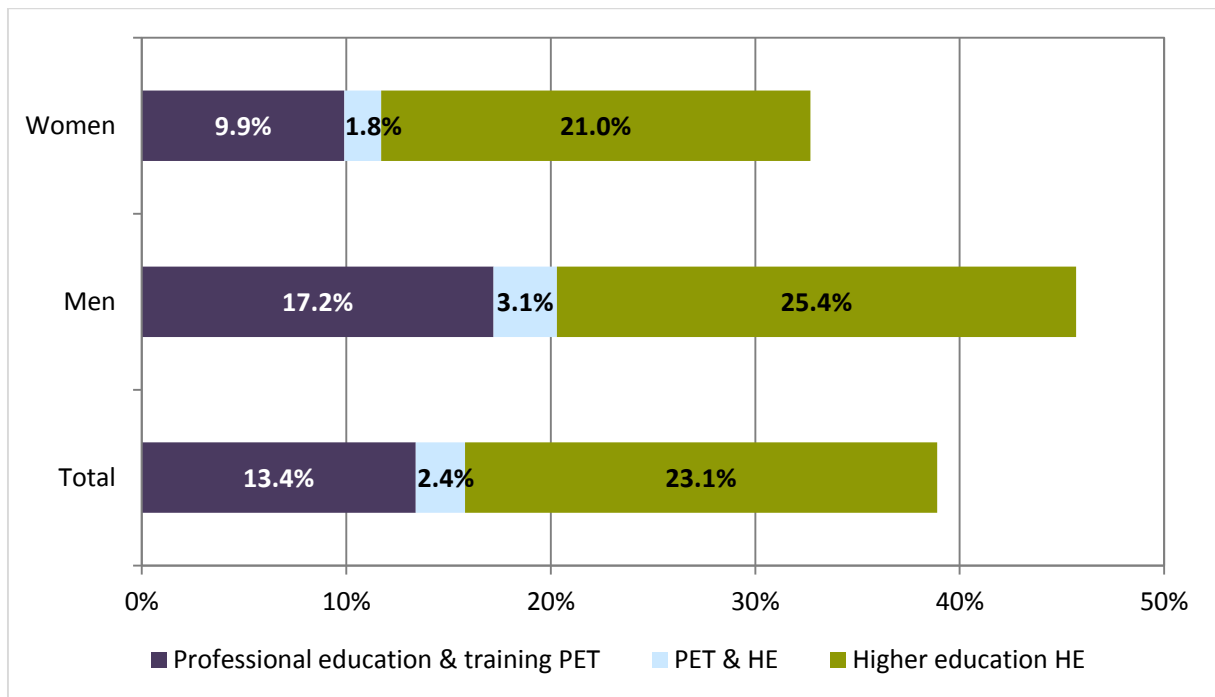


Figure 9: Percentage of employed people (aged 25-64) with a tertiary-level qualification in 2013 (FSO, 2014).

High level of practical relevance

The hallmarks of tertiary level professional education and training are its strong emphasis on the labour market and close links between theory and practice. The involvement of professional associations and other professional organisations as awarding bodies for federal examinations and framework curricula in Colleges of Higher Education ensures that new training requirements are quickly implemented. This guarantees rapid innovation and avoids training courses that the business world does not need.

Example: Horticultural management (Federal Diploma of Higher Education)

Duration: Duration and scope are not regulated.

Admission requirements: To take the examination, candidates must have:

- a) a Federal Diploma of Vocational Education and Training in agriculture or a Federal Diploma of Higher Education in farming and farmhouse management or similar qualification;
- b) at least two years of agricultural experience following the acquisition of the qualification specified in a) above
- c) evidence of having completed the modules specified in the examination regulations

Occupational profile and activities involved: Holders of the Federal Diploma of Higher Education in horticulture management preside over operational planning and management and also efficient and effective farming activities and service provision in an agricultural facility. They plan and operate the facility in such a way that production is economical, meets high quality standards and is environmentally compatible. They carry out the full-cost and profitability calculations needed in order to achieve this, select suitable production processes and methods, and organise the work. They review crop choices, quality, production methods and profitability on an ongoing basis, develop sales channels and react appropriately to agricultural, political and environmental developments. They assess locations, decide upon crop rotation, cultivation methods and sowing and harvesting dates, and they develop environmentally friendly crop protection strategies. When planning crop choices, they take account of cultivation techniques and machine technology, and also business and market requirements.

Admission entitlement to further qualifications: For example: Advanced Federal Diploma of Higher Education in farming, Advanced Federal Diploma of Higher Education in agricultural technology (College of Higher Education), Bachelor of science in farming (university of applied sciences)

Variety of entry routes

Tertiary level professional education and training takes account of the individual circumstances, learning curves and needs of professional people. It offers opportunities to acquire higher-level qualifications irrespective of age. A Federal Diploma of Vocational Education and Training or similar qualification is usually needed as a prerequisite. Relevant work experience is also a prerequisite for the examination. Additional specific requirements are defined in the relevant examination regulations and framework curricula.³³

Tertiary level professional education and training offers VET graduates opportunities for further professional development and more advanced training. This reinforces the attractiveness of vocational and professional education and training as a whole. University graduates also take federal examinations, particularly Advanced Federal Diploma of Higher Education, as additional qualifications for the job market.

Joint private and public involvement

The federal government, cantons and professional organisations work together to provide high-quality vocational and professional education and training. The close involvement of professional organisations is a key prerequisite for the focus of examinations and training courses on the labour market. Private and public educational institutions offer preparatory courses for federal examinations and courses of study at Colleges of Higher Education.

Financing

Tertiary level professional education and training is funded by the private and public sector, with students and employers making substantial contributions. The public sector contributes to funding federal examinations and also, increasingly, to funding Colleges of Higher Education. Funding for the industry-based aspects of tertiary level professional education and training, federal examinations and associated preparatory courses is largely based on significant contributions by the business world and graduates. In contrast, the academic system (Colleges of Higher Education) is primarily funded by the public sector.

Discussions are currently underway at a national level concerning new federal funding for (Advanced) Federal Diploma of Higher Education candidates.

Qualifications available

Candidates who pass the Federal Diploma of Higher Education Examination are awarded a **Federal Diploma of Higher Education**. Working towards this qualification enables professional people to study and specialise in more depth following a vocational education and training course. Prerequisites for the examination include several years of experience in the relevant profession and usually the completion of upper-secondary education. There are currently 241 Federal Diplomas of Higher Education in a wide variety of fields, for example, policing and HR. The Federal Diploma of Higher Education is usually a prerequisite for sitting the Advanced Federal Diploma of Higher Education Examination. Some diplomas are subdivided into several specialist fields. For example, a Federal Diploma of Higher Education in automotive diagnostics can be obtained for light motor vehicles or commercial vehicles. Since the training content differs, all specialist fields will be separately assigned in the NQF VPET. There are therefore 272 different Federal Diplomas of Higher Education that need to be assigned.

Professionals who pass the Advanced Federal Diploma of Higher Education Examination are awarded an **Advanced Federal Diploma of Higher Education**, qualifying them as experts in their field and enabling them to hold management positions in companies. According to legislation,³⁴ the Advanced Federal Diploma of Higher Education is always a higher-level qualification than the Federal Diploma of Higher Education. There are currently 172 Advanced Federal Diplomas of Higher Education available in a wide variety of professions, for example master metalworker and qualified auditor.³⁵ The awarding bodies can choose between three different title alternatives for the Advanced Federal Diploma of Higher

³³ All these documents can be viewed at: www.sbf.admin.ch/bvz.

³⁴ VPETO Art 23, 1.

³⁵ For the Advanced Federal Diploma of Higher Education, there are three different types of title: Qualified [ICT Manager], [Police Officer] with Advanced Federal Diploma of Higher Education, and Master [Metalworker].

Education: Master [xy]; [xy] with Federal Diploma or [xy] with Advanced Federal Diploma of Higher Education. In this context, the term *master* is chiefly used for trade and craft qualifications.

The figure below illustrates the distribution of the 241 Federal Diplomas of Higher Education and 172 Advanced Federal Diplomas of Higher Education across different sectors:

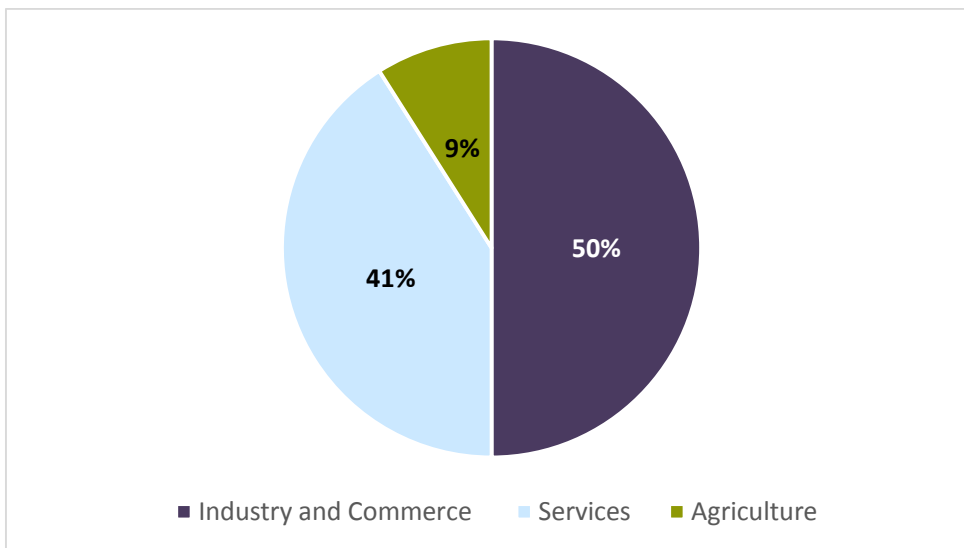


Figure 10: Percentage of Federal Diplomas of Higher Education and Advanced Federal Diplomas of Higher Education by sector (Professional education and training 2011 – Facts and Figures, page 14).

The qualifications actually obtained are distributed as follows:

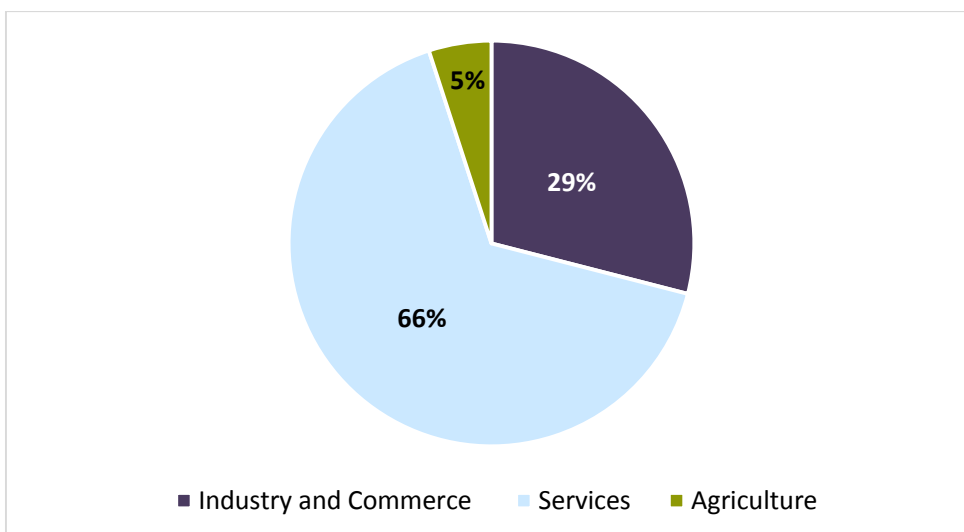


Figure 11: Percentage of actual qualifications obtained by sector in 2009 (Professional education and training 2011 – Facts and Figures, page 14).

Federal Diplomas of Higher Education and Advanced Federal Diplomas of Higher Education are nationally recognised qualifications. However, preparation for these exams is not regulated, and therefore varies widely and is optional. A variety of different providers offer preparatory courses, and the resulting competition between providers helps to enhance course quality.

Courses of study at Colleges of Higher Education are aimed at professional people with a Federal VET Diploma or equivalent qualification, and boost specialist and management skills. They have a more general focus than Federal Diplomas of Higher Education and Advanced Federal Diplomas of Higher Education, and graduating students are awarded a **Federally Recognised Diploma** (College of Higher Education). These courses and also their final examinations are federally recognised. Almost 450

courses of study are available,³⁶ and around 7,000 people gain this type of qualification each year. The 53 specialist subjects offered at Colleges of Higher Education will be assigned in the NQF VPET. For example, there is a "Technology" core syllabus with a choice of 15 different specialist subjects including "Construction management", "IT" and "Textiles". Training often takes place within two to four years of students completing their upper-secondary education, and lays the foundations for their professional careers. The most popular qualifications are Qualified Nursing Professional (College of Higher Education) and Qualified Business Economist (College of Higher Education).

Courses can be taken on a part-time or full-time basis. The minimum requirement is a Federal VET Diploma plus work experience. Full-time courses last at least two years, and part-time courses last at least three years. Twenty percent of each full-time course takes the form of work experience. For part-time courses, students must be working at least half-time in relevant employment.

Different economic sectors have differing requirements for employees with tertiary-level qualifications. Farming, construction, commerce, the repair profession and the hospitality sector have a relatively small percentage of workers with university qualifications. In most other economic sectors, the percentage of workers with university degrees and tertiary-level professional education and training are fairly similar.

1.3 Focus on learning outcomes in alternative VPET learning pathways

Federally recognised qualifications can be gained via different learning pathways. Alongside established qualification procedures, the Swiss education system can award credits for vocational skills that have been acquired non-formally and informally. This applies primarily for VET qualifications acquired by adults and for qualifications gained by means of validation.

The definitions commonly used in Switzerland in this field are regulated by the Federal Act on Continuing Education and Training.³⁷ Art 3 states that the following notions are applicable:

- a) Continuing education and training (non-formal education): structured education outside the framework of formal education;
- b) Formal education: state-regulated education that:
 1. takes place as part of compulsory education, or
 2. leads to one of the following qualifications:
 - completion of upper-secondary education, a tertiary level professional education and training qualification, or an academic degree,
 - a qualification that is a prerequisite for a state-regulated occupational activity;
- c) Structured education: education and training in the form of organised courses, learning programmes or a defined teaching/learning relationship;
- d) Informal education: skills acquired outside the framework of structured education.

1.3.1 Vocational and professional qualifications for adults

Adults who gain vocational and professional qualifications (Federal Diploma of Vocational Education and Training or Federal Certificate of Vocational Education and Training) increase their job opportunities and are able to access more advanced education and training. They can choose between a varieties of well-established routes in order to obtain a first qualification at upper-secondary level or a second VET qualification when they change occupation.

1. **Adult attendance on VET courses:** Vocational education and training courses are in principle also open to adults. They can sign an apprenticeship contract with a company, thereby benefiting from the vocational education and training on offer. In some occupations favoured by adults, special adult training courses exist. These may for example include shortened vocational and

³⁶ OPET, 2011.

³⁷ Federal Act on Continuing Education and Training (WeBiG), 20 June 2014.

educational training tailored to adult needs, or classes especially for adults. In all VET occupations, prior experience can be taken into account. This takes the form of special dispensations to skip lessons or parts of examinations, or a shortened duration for VET courses.

2. **Final examination prerequisites for adults:** If they have acquired skills outside a regulated educational programme, adults may undergo qualification procedures provided they have at least five years of vocational experience, three years of which must usually have been spent in the occupation in question. Candidates must also convincingly demonstrate that they are capable of coping with the demands of the qualification procedure in question. Around three thousand people gain a Federal Diploma of Vocational Education and Training or Federal Certificate of Vocational Education and Training each year in Switzerland in this way.
3. **Validation of prior experience:** In occupations where businesses have a high degree of acceptance for alternative qualification procedures, a system of validating prior experience has been established. This enables people to compile evidence of their skills in a dossier and have this verified by cantons. Provided the skills required for the job are fulfilled, the Federal Certificate of Vocational Education and Training or Federal Diploma of Vocational Education and Training can be issued directly.
4. **Recognising diplomas and confirming qualification levels:** In the case of regulated professions, people with foreign diplomas can have their diplomas recognised. This involves SERI verifying that the foreign diploma is comparable to a Swiss one.³⁸ For non-regulated professions, SERI can issue a confirmation of qualification level. It is ultimately the labour market that decides which diplomas are required for particular jobs. Provided employers accept a foreign diploma, no confirmation of the qualification level is needed.

1.3.2 Validation and recognition of prior experience in vocational education and training

In Switzerland there are two options for validating and recognising prior experience. Prior experience can be recognised on all vocational education and training courses, but the validation of prior experience is only offered on a few of these courses.

Recognition of prior experience

Prior experience can be taken into account on all VET courses. There are two options for this: the vocational school can give trainees a dispensation for classes and the cantons can give them a dispensation for certain elements of exams. If they already have some competences or a solid grounding, the training company can also request that the VET course be shortened.

Validation of prior experience

Validating prior experience³⁹ in vocational education and training makes it possible to record in a structured manner experience gained in variety of different ways, verify the vocational skills required for the particular basic vocational training and acquire a formal qualification. As with all qualification procedures, validation is based on the qualification profile. This is where the occupational profile and the professional competences are described. Everyone resident in Switzerland has access to the validation procedure, provided they have accumulated at least five years' work experience, three years of which must usually have been spent in the profession in question. Candidates must also demonstrate that they are capable of coping with the demands of the qualification procedure.

Validating prior experience is the joint task of the federal government, cantons and professional organisations. The federal government is responsible for the quality assurance and development of the overall system, the cantons are responsible for implementing the validation procedure, and the professional organisations are responsible for the content of vocational education and training and therefore also the validation of prior experience.

³⁸ SERI, 2015.

³⁹ Term used in Switzerland to describe the validation of non-formally and informally acquired learning outcomes: SERI: <http://www.sbf.admin.ch/berufsbildung/01505/?lang=de>, 06.02.2015.

The cantons are responsible for introducing validation procedures and providing catch-up training. All cantons provide an entry portal and are able to refer candidates. If the relevant profession is not validated in a particular canton, the candidate is referred to a canton that is able to validate it. The validation procedures currently offered by cantons can be viewed online.⁴⁰ At present, the procedure is offered for two Federal Certificate of Vocational Education and Training courses and for twenty Federal Diploma of Vocational Education and Training courses. The validation of competences is integrated into those professions that have a need for this qualification procedure and where the validation of prior experience is accepted by the industry sector in question. The additional requirements of this offer for other industry sectors are currently limited. However, SERI regularly raises this issue with the industry sectors and, where it is felt there is a need, attempts to press ahead with the matter. Since all professions have methods for taking prior experience into account, expanding the validation of prior experience is not pivotal. There is no point setting up this complex procedure in professions with only one or two potential candidates each year.

The **procedure** for validating prior experience in vocational education and training consists of five phases:

Phase 1: Information and advice

Interested individuals contact the offices (entry portals) responsible for validation in the canton in which they live.

They are given information on possible ways of having their vocational skills verified and gaining an upper-secondary level vocational qualification, and also the necessary information on the validation procedure. They can seek advice throughout the entire procedure.

Phase 2: Justification

The justification phase forms the basis of the validation process. Candidates identify and analyse their personal and vocational skills as well as their general education, and document these in a validation dossier. The validation dossier has to meet minimum requirements on form and content, and contains data, facts and evidence regarding a specific vocational competence profile and the general education requirements profile. The required professional competences for the relevant vocational education and training are listed in the qualification profile.

Phase 3: Assessment

Occupational and general education experts jointly examine the validation dossier. Following a discussion with the candidate, they issue an appraisal. This appraisal is an overall assessment, and is adult-oriented. During the assessment, particular attention is paid to ensuring that candidates demonstrate the same professional competences as trainees at the end of vocational education and training. The validation of prior experience is therefore a process that is geared towards the learning outcomes of vocational education and training.

Phase 4: Validation

Based on the expert assessments, the validation body decides:

- which vocational skills the candidate has achieved and which general education requirement criteria have been met, and issues a confirmation of learning achievement
- what supplementary training the candidate still has to complete in order to receive the intended qualification.

Phase 5: Certification

Certification takes place within the usual VET structures and framework of responsibilities. The relevant cantonal authorities award the federal title.

⁴⁰ <http://www.berufsberatung.ch/dyn/51009.aspx>, 9.2.2015.

1.3.3 Validation – a peculiarity of tertiary level professional education and training

As stated in chapter 1.2.3, tertiary level professional education and training can be subdivided into two different types of qualification:

1. Federal Diploma of Higher Education Examinations and Advanced Federal Diploma of Higher Education Examinations, for which successful candidates are awarded a Federal Diploma of Higher Education or an Advanced Federal Diploma of Higher Education
2. Courses of study at Colleges of Higher Education that culminate in a Federally Recognised Advanced Federal Diploma of Higher Education (College of Higher Education).

There are no regulations governing the requisite training for the examinations listed in point 1 above. Upper-secondary education must usually have been completed. Exam candidates must also prove they have a certain number of years' work experience. This means that informal workplace learning is also taken into account and subsequently validated. Preparatory courses are frequently offered to enable candidates to acquire the remaining learning outcomes on which they will be examined. This preparation often includes modular or interim examinations set by the relevant industry. The content of these courses and examinations is not regulated by the federal government, and is therefore classed as non-formal education (continuing education and training).

The qualifications gained, in other words the Federal Diploma of Higher Education and the Advanced Federal Diploma of Higher Education, are formal qualifications. As such, they will be assigned in the NQF VPET.

In European education and training terminology, this element of tertiary level professional education and training in Switzerland is continuing education and training consisting of non-formal and informal educational components, validated with a formal qualification.

In contrast to federal examinations, the courses of study detailed in point 2 above are regulated and federally recognised. Students can attend them on a part-time or full-time basis. On full-time courses, work placements are mandatory in order to obtain professional experience.

2 Scope and coverage of the NQF VPET

All of the approximately 730 formal qualifications for vocational and professional education and training will be assigned to the National Qualifications Framework for VPET qualifications (NQF VPET). These comprise:

Vocational education and training qualifications

- Federal Certificate of Vocational Education and Training
- Federal Diploma of Vocational Education and Training (3 years)
- Federal Diploma of Vocational Education and Training (4 years)

Professional education and training qualifications

- Advanced Federal Diploma of Higher Education from colleges of professional education and training
- Federal Diploma of Higher Education
- Advanced Federal Diploma of Higher Education
- Qualifications for VET professionals

2.1 Political and legal context

Differences between the various education systems around the world make it difficult to assess the value of a particular training programme or compare it with others. The importance of vocational and professional education and training in Switzerland and the large number of people taking such programmes also make it necessary to ensure that VET and PET qualifications are more transparent and readily comparable, also internationally. This can be achieved by the establishment of a National Qualifications Framework for VPET qualifications and its subsequent referencing to the European Qualifications Framework as well as the issuing of certificate supplements (for VET qualifications) and diploma supplements (for PET qualifications). To enable Swiss vocational and professional qualifications to be more readily compared with those of other European countries as well as facilitate job mobility, in August 2014 the Federal Council⁴¹ decided to introduce a national qualifications framework for vocational and professional education and training along with the simultaneous issuing of certificate supplements and diploma supplements. The Federal Council created the legal basis for the implementation of the NQF for VPET qualifications and for the certificate and diploma supplements by means of an ordinance⁴² on 1 October 2014. This framework covers the approximately 730 formal VET and PET qualifications at upper-secondary and tertiary level.

Although separate, the NQF VPET complements the existing qualifications framework for the Swiss higher education sector which was drawn up as part of the Bologna Process. The two frameworks together cover 75% of all qualifications for the resident population of Switzerland⁴³. This 75% comprises qualifications for vocational education and training, tertiary-level universities and tertiary level professional education and training. The remaining 25% are qualifications relating to compulsory education, one-year housekeeping courses, one to two year business school courses, qualifications from intermediate diploma schools and other general schools as well as the baccalaureate and teacher training.

2.2 Qualifications framework for the Swiss higher education sector

As a signatory to the Bologna Declaration of 1999, Switzerland undertook to contribute to the establishment of a European Higher Education Area. The cornerstones of the EHEA are the introduction of a three-cycle system (Bachelor, Master and Doctorate), the introduction of the European Credit Transfer

⁴¹ Swiss government (executive).

⁴² Ordinance on the National Qualifications Framework for VPET qualifications (NQF VPET).

⁴³ Highest qualification attained by permanent resident population, FSO, 3rd quarter 2014: www.bfs.admin.ch/bfs/portal/de/index/themen/03/02/blank/data/03.html#bev, 12.01.2015.

and Accumulation System (ECTS), and cooperation in quality assurance. In 2005 the education ministers of the signatory states also adopted the Qualifications Framework for the European Higher Education Area (QF EHEA) and resolved to draw up compatible national qualifications frameworks based on the QF EHEA. Switzerland commenced the necessary preparations in the same year. In September 2005, the former State Secretariat for Education and Research (SER), taking account of the federal structures and the autonomy of the universities, asked the Rectors' Conference of the Swiss Universities (CRUS) to jointly develop the Qualifications Framework for the Swiss Higher Education Area (nqf.ch-HS) together with the Rectors' Conference of the Swiss Universities of Applied Sciences (KFH), the Swiss Conference of Rectors of Universities of Teacher Education (COHEP), the Swiss Centre of Accreditation and Quality Assurance in Higher Education (OAQ) and other stakeholders⁴⁴. The NQF VPET was then subsequently drafted to implement the EQF Recommendation⁴⁵.

The Qualifications Framework for the Swiss Higher Education Area nqf.ch-HS describes and defines the levels of higher education in Switzerland on the basis of generic descriptors, admission requirements, workload (ECTS credits) and qualifications.

Since the nqf.ch-HS is based on the QF EHEA as the common reference model for the signatory states, the nqf.ch-HS is helping to achieve the objectives of the Bologna Reform:

- It helps universities design and describe their degree programmes.
- It improves information about the Swiss higher education system.
- It facilitates comparability between qualifications in Europe and enhances transparency.

Following its approval by the joint steering committee of the three Rectors' Conferences CRUS, KFH and COHEP on 23 November 2009, its members undertook to use the nqf.ch-HS as a guide. At the higher education policy level, the nqf.ch-HS was approved on 30 June 2011 for universities affiliated to the Swiss University Conference⁴⁶. The cantonal coordinating body (EDK Council of the Universities of Applied Sciences) responsible for the universities of applied sciences and the universities of teacher education until 31 December 2014 has not approved the nqf.ch-HS.

Approval of the qualifications framework for the universities of applied sciences and universities of teacher education was awaiting the entry into force of the Federal Act on Funding and Coordination of the Swiss Higher Education Sector (HEdA) on 1 January 2015. The HEdA provides a common legal basis for all types of higher education establishments. The top-level body is the Swiss University Conference (SUC), which is responsible for coordinating the activities of the federal government and the cantons in the higher education sector across the whole of Switzerland. The SUC comprises the designated member of the Federal Council appointed by the Federal Council⁴⁷ plus fourteen members of the governments of the cantons that fund universities, universities of applied sciences and universities of teacher education (HEdA Art 12). The Higher Education Council, an assembly of the SUC, is accordingly responsible for determining the characteristics of the different types of higher education institutions and consequently for approving the qualifications framework (HEdA Art 12, paragraph 3b).

The nqf.ch-HS uses the descriptors of the QF EHEA, known as the Dublin descriptors. These were originally developed by a working group of the Joint Quality Initiative. They are widely accepted and reflect a European consensus. The nqf.ch-HS descriptors describe the minimum requirements.

This set of generic descriptors defines in five categories the learning outcomes to be attained at the respective levels.

The five categories for levels 1-3 and for continuing education and training (CET) are:

- Knowledge and understanding
- Applying knowledge and understanding

⁴⁴ CRUS, KFH, COHEP 2011, Qualifications Framework for the Swiss Higher Education Area, nqf.ch-HS, Bern.

⁴⁵ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:111:0001:0007:EN:PDF>, 9.2.2015.

⁴⁶ Ibid.

⁴⁷ Swiss government (executive).

- Making judgements
- Communication skills
- Learning skills

A further descriptor relates to tertiary level qualifications in the continuing education sector. This includes the Master of Advanced Studies (MAS, minimum of 60 ECTS credits), the Diploma of Advanced Studies (DAS; min. 30 ECTS credits) and the Certificate of Advanced Studies (CAS; min. 10 ECTS credits). Access to individual CET offerings is defined in detail by the respective bodies⁴⁸.

By adopting the Dublin descriptors, the nqf.ch-HS is closely aligned with the Qualifications Framework for the European Higher Education Area. To ensure that the national qualifications frameworks are compatible with the QF EHEA and with each other, all countries are required to self-certify their national qualifications frameworks. This process of self-certification assumes that the qualifications framework has been approved by the relevant bodies responsible. As mentioned above, when the new HEEdA comes into force the responsibility for approving the nqf.ch-HS will fall within the mandate of the new Swiss Higher Education Council to define the characteristics of the higher education institutions, consequently preparing the way for self-certification of the nqf.ch-HS.⁴⁹

Self-certification of the nqf.ch-HS lies within the remit of the Swiss Conference of Higher Education Institutions. There is currently no schedule for self-certification. This depends on the Swiss Conference of Higher Education Institutions' approving the nqf.ch-HS. Once this has happened, plans can be made for self-certification. swissuniversities will campaign to place the self-certification on the work schedule of the Swiss Conference of Higher Education Institutions, if possible in 2016.

2.3 Compatibility and complementarity of NQF VPET and nqf.ch-HS

At the European level, the wider qualifications framework for lifelong learning linked to the Copenhagen Process (EQF LLL) was the forerunner of the QF EHEA. The EQF LLL also covers general education as well as vocational and professional education and training. Within the Bologna Process, however, the Education Ministers have always stressed that complementarity between the two frameworks is to be maintained. At the European level, the QF EHEA is compatible with the EQF LLL. According to the EQF Recommendation, the Dublin descriptors for levels 1 (Bachelor), 2 (Master) and 3 (Doctorate) correspond to the learning outcomes required to attain EQF levels 6, 7 and 8 respectively, with the EQF levels also being available to VPET and continuing education qualifications as well as to informal learning.

Compatibility with the QF EHEA will be established following self-certification and approval of the nqf.ch-HS by the Swiss Higher Education Council (Figure 12).

The alignment of the two national qualifications frameworks NQF VPET and nqf.ch-HS to the respective overarching European Qualifications Framework indirectly makes their systemic complementarity transparent.

National context

The Swiss Federal Constitution enshrines the obligation to ensure that equal value and societal recognition are attached to general and vocational educational pathways⁵⁰. This purpose is also served by highlighting the systemic complementarity of the two frameworks, which may be developed separately, but which are coordinated. The creation of an overall framework at a later date is not ruled out, but neither the necessity nor the political mandate to do so exists at present.

⁴⁸ CET at tertiary level: www.swissuniversities.ch/en/higher-education-area/qualifications-framework-nqfch-hs/weiterbildung/, 5.01.2015.

⁴⁹ Latest information on progress with implementation: www.swissuniversities.ch/en/higher-education-area/qualifications-framework-nqfch-hs/.

⁵⁰ Federal Constitution Art 61a, 3.

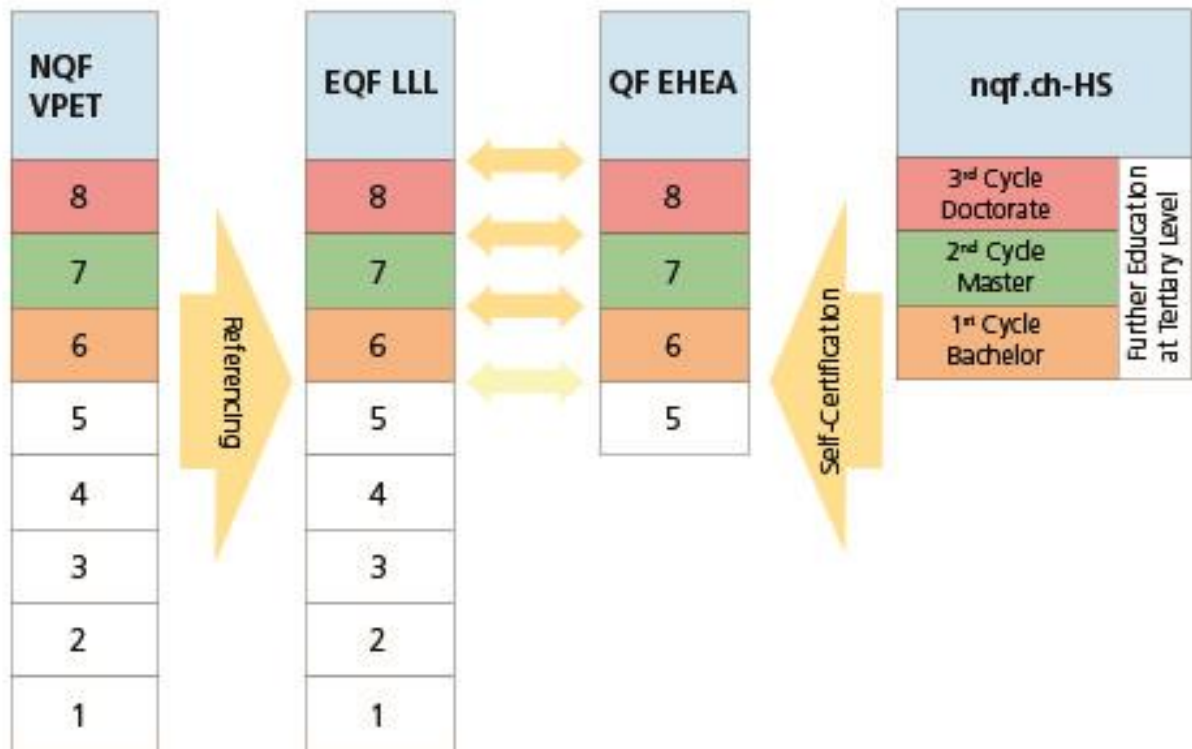


Figure 12: Correlation between the European and national qualifications framework.

A qualifications framework platform was established for **exchanging information and coordinating** work on the NQF VPET with the nqf.ch-HS. Members of the platform from professional education and training establishments are representatives of the Rectors' Conferences of the universities, the Colleges of Higher Education and professional organisations, along with delegates from SERI's departments for VPET and higher education. The purpose of the platform is to facilitate the exchange of information on the current progress of the respective developments and to coordinate any future work. Universities have not yet discussed their acceptance for classifying vocational and professional education and training qualifications at levels 6-8 of the NQF VPET.

Owing to the importance of vocational and professional education and training in Switzerland and the necessity of strengthening the comparability and transparency of vocational and professional qualifications, the focus over the next few years will be on implementing the NQF for VPET qualifications.

2.4 VET professionals

The scope of the NQF VPET ordinance also includes the qualifications of VET professionals. These are formal qualifications. VET professionals⁵¹ teach apprentices at the three places of learning. The term VET professionals covers the following occupations:

- VET trainers in host companies
- VET trainers for industry courses
- Teachers responsible for providing classroom instruction
- Teachers responsible for preparing learners for the Federal Vocational Baccalaureate
- Teachers at colleges of professional education and training

⁵¹ The subject knowledge, vocational education requirements and practical experience of VET professionals are defined in Chapter 6 of the Federal Act on Vocational and Professional Education and Training (Arts 45-48 VPETA) and in Arts 40-54 of the Ordinance on Vocational and Professional Education and Training.

VET professional qualifications are based on the core syllabuses specified by SERI. It is not intended to assign the following vocational education qualifications to the NQF VPET:

- for VET trainers in training companies as set out in Art 44 of VPETO;
- for part-time VET trainers for industry courses as set out in Art 45, paragraph 1 c2 of VPETO; and
- for VET teachers' certificates for part-time vocational education and training as set out in VPETO Art 46, paragraph 2b2, or part-time at colleges of professional education and training as set out in MiR-PC Art 12, paragraph 1b2.

The pedagogical training required to become a teacher in the vocational education sector is not extensive and the professional qualifications required to become a teacher are essentially based on qualifications that are assigned as part of other processes.

Specialised training for vocational, study and career guidance practitioners is provided for the most part at universities so its assignment does not fall within the scope of the Federal Act on Vocational and Professional Education and Training.

2.5 General education qualifications

General education at upper-secondary level, which falls within the jurisdiction of the cantons (baccalaureate schools, upper-secondary specialised schools), is currently not included. Since the baccalaureate is not a qualification that qualifies an individual for a profession per se, there is no need to assign it to the NQF VPET at present. Once solutions begin to emerge in Switzerland's neighbouring countries that also have a dual-track system regarding the assignment of their school leaving certificates (*Abitur*, *Maturität*, etc.), SERI will discuss the possible assignment of the baccalaureate with the relevant bodies.

Assigning of the extended general education for the Federal Vocational Baccalaureate is likewise not envisaged at present. It is specific to Switzerland at the upper-secondary level and together with a Federal VET Diploma entitles holders to study at a university of applied sciences or, in conjunction with a university aptitude test, at a university. The assignment of the Federal Vocational Baccalaureate in the NQF VPET presents various difficulties. Since the descriptors of the NQF VPET are specifically geared to VET or PET qualifications, it is not possible to assign the learning outcomes of the general education element.

In addition, the Federal Vocational Baccalaureate may only be attained in combination with a Federal VET Diploma. The question therefore arises of how the Federal Vocational Baccalaureate could be assigned to the NQF VPET. The intention is to gather experience with assignment the formal VPET qualifications in order to be in a better position to undertake any assignment of the Federal Vocational Baccalaureate at a later date.

2.6 Non-formal education qualifications (CET)

Stakeholders in non-formal training, particularly training and qualification providers, have an interest in classifying non-formal education and training within the NQF VPET. They have made their view known on several occasions.

However, since Switzerland has an extensive formal education system that covers many qualifications – particularly in professional education and training – that are classed as non-formal (continuing education) in other European countries, referencing vocational qualifications that fall outside the scope of formal education is not a priority. The first step is to gain some experience of classifying formal qualifications.

Moreover, the legal basis of the NQF VPET is the Federal Act on Vocational and Professional Education and Training (VPETA). Hence the qualifications that can be referenced are those that are covered by VPETA. This does not apply to non-formal training qualifications. Furthermore, these courses lack the quality-assured basic reference documents (educational ordinance, examination regulations, etc.) that are required for assignment purposes.

However, SERI does not rule out holding discussions. In mid-2015, a project proposal entitled "Analysis of the possibilities, opportunities and risks involved in classifying non-formal qualifications in the NQF VPET" was submitted to SERI. There are potential problems with this project proposal and its aims are not clearly enough defined. The ball is now back in the proposers' court; they need to submit a more refined proposal.

3 Drafting and planned implementation of the NQF VPET

3.1 Aim of the NQF VPET

At the end of August 2014 the Swiss Federal Council⁵² passed the Ordinance on the National Qualifications Framework for VPET qualifications (NQF VPET). The ordinance is based on Arts 34 and 65 of the Federal Act on Vocational and Professional Education and Training and came into force on 1 October 2014⁵³. This ordinance provides the foundation for the assignment of Swiss VPET qualifications to the NQF VPET and for drafting the respective certificate and diploma supplements. A certificate supplement is issued for every VET qualification and a diploma supplement is issued for every PET qualification.

The NQF VPET, the certificate supplements and diploma supplements aim to improve the transparency and comparability of Swiss vocational and professional qualifications. By aligning with the European Qualifications Framework for Lifelong Learning, the NQF VPET aims:

- firstly to map the Swiss VPET system adequately and thus improve the transparency, clarity and comparability of vocational and professional qualifications in relation to European qualifications;
- to promote equal recognition and valuing of vocational and professional education and training in society in comparison with academic qualifications (Federal Constitution Art 61a, paragraph 3);
- to facilitate employers' understanding of the competences of graduates of Swiss vocational and professional courses on the one hand and those of graduates with European qualifications on the other hand in order to meet the needs of the labour market;
- by virtue of the improved transparency of qualifications to increase the opportunities of skilled workers and managers educated in Switzerland when seeking employment abroad, or with foreign companies and decision-makers in Switzerland, and consequently improve their job mobility.

As part of the strategic project tertiary level professional education and training, new English title translations for tertiary level professional qualifications were defined as a repositioning measure. Based on the political discussions and work on the strategy project, and in collaboration with VPET partners, a solution was drawn up for meaningful English titles for both tertiary level professional education and training and vocational education and training courses. The aim is to replace the current disparate English title translations with new English standard title translations during the implementation of the NQF VPET. The new titles will also be listed on the new certificate and diploma supplements.

Assignment of a VET or PET qualification to a level of the NQF VPET does not mean that a vocational or professional qualification is recognised and it does not confer any entitlement to work in a regulated profession⁵⁴. A qualification at a particular NQF level does not automatically entitle admission to a course at the next higher level. The introduction of the NQF VPET does not give rise to any new legal entitlements with respect to pay or transfer opportunities within the education system.

The NQF VPET serves to depict the current situation with regard to VPET qualifications. The qualifications will be assigned to a level within the NQF VPET using professional competences-oriented descriptions. The NQF VPET is consequently not a tool for reforming vocational education and training. However, one side effect of the forthcoming classifications is that the professional competence descriptions for certain occupations will need to be rewritten, improved or revised (see also Section 4.23 Criterion 3).

⁵² Swiss government (executive).

⁵³ www.admin.ch/opc/de/classified-compilation/20140910/201410010000/412.105.1.pdf.

⁵⁴ A regulated profession is a professional field or group of professional activities where legislation or regulations directly or indirectly restrict admission to the profession and the practice of the profession, or a particular form of practice, to individuals who have specific professional qualifications.

The NQF VPET is not a tool for careers advice nor counselling; in Switzerland specific cantonal institutions exist for this purpose. They have been informed of the work and the NQF VPET, and can use the NQF VPET should they wish or need to do so.

Nor does the NQF VPET act primarily as a tool for promoting lifelong learning. Since the Swiss educational system is already very permeable and lifelong learning is indirectly regulated in the Federal Act on Continuing Education and Training (see sections 1.1.4 & 1.1.5), the NQF VPET does not need to assume this role.

Since the federal government is responsible for the VPET sector (Federal Constitution Art 63, paragraph 1), the responsibility for the NQF VPET during the entire process lies with the State Secretariat for Education, Research and Innovation SERI. This encompasses the preparation of the entry into force and implementation of the ordinance as well as subsequent assignment of qualifications to the qualifications framework.

In accordance with the VPET partnership principle, the cantons, professional organisations and the colleges of professional education and training are involved in drafting and implementing the National Qualifications Framework for VPET qualifications (section 3.3). The qualifications framework platform ensures that stakeholders in the higher education sector are kept informed of developments.

3.2 Structure of the NQF VPET

3.2.1 Focus on professional competences and practical experience

The NQF VPET is based on descriptions of professional competences (criterion 3). On the basis of these competences, all VET and PET qualifications are differentiated and individually assigned to the Swiss qualifications framework. Since there may be differences between VPET qualifications of the same type with respect to competences, qualifications of the same type (e.g. Federal VET Diplomas) are not necessarily assigned to the same level of the NQF VPET. This means, for example, that the Chef with a Federal Diploma of Vocational Education and Training could be assigned to level 4, while the Federal Diploma of Vocational Education and Training for ICT specialists could be assigned to level 5.

The structuring around competences furthermore enables the element of practical experience, which is an important part of the Swiss VPET system, to be reflected appropriately in the qualifications framework. In vocational training, practical experience forms an integral part⁵⁵ of the curricula. The learning outcomes to be achieved are specified in the respective VET ordinances⁵⁶. The providers of practical training, i.e. the companies themselves and their VPET partners, are committed to learners achieving the best possible learning success and verify this periodically⁵⁷. Since the assignment of VET qualifications is done on the basis of the VET ordinances, the practical work experience of graduates is automatically taken into account in the assignment to the NQF VPET.

A certain amount of qualified practice following the last educational qualification is required for admission to professional education and training qualifications⁵⁸. This is specified in either the examination regulations or in the core syllabus. Since the assignment of a qualification to the NQF VPET is based on the respective examination regulations or core syllabus, not only the length of time to acquire the qualification, but also the practical experience gained while working towards the qualification is automatically taken into account.

⁵⁵ VPETA Art 16, 1.

⁵⁶ VPETA Art 19, 2b.

⁵⁷ VPETA Art 20, 1.

⁵⁸ In the case of federal examinations, generally at least two years' practical experience is required. For courses at Colleges of Higher Education, usually a VET qualification (Federal VET Diploma) plus one year's professional experience are required, VPETA Art 28, 1 and 29, 1.

3.2.2 Levels and descriptors of the NQF VPET

The NQF VPET is a grid comprising eight levels to which all formal qualifications of the Swiss VPET system are systematically assigned. This is done on the basis of competence-oriented descriptors that describe the requirements for each level. The levels of the qualifications framework correspond to those of the EQF. The descriptors are likewise closely aligned with those used in the EQF. To ensure appropriate assignment of the qualifications, they were, however, also adapted to suit the special features of the Swiss VPET system, in particular the importance of periods of practical experience. The descriptors of the NQF VPET are formulated specifically with respect to vocational and professional training across all eight levels.

The three descriptors "Knowledge", "Skills" and "Competences" are defined specifically in relation to Swiss vocational and professional education and training:

- "Knowledge" relates to factual knowledge in a field of work or study and is subdivided into the categories of "Knowledge" and "Understanding".
- "Skills" relate to the ability to apply knowledge in order to perform tasks and solve problems. A distinction is drawn here between procedural and sensorimotor skills.
- "Competences" denotes the regular and routine application of knowledge and skills in the context of work and are divided into "professional" and "personal" competences. The formulation of this descriptor gives due weight to the importance of practical experience and indicates that other competences beyond technical ones can be acquired which contribute to the further development of the individual both within and outside work situations.

It is not envisaged that any VPET qualifications will be allocated to level 1 (sections 3.3.3 and 3.3.4). Levels 2 to 5 are open to the various qualifications for vocational education and training.

With respect to levels 5 to 8, the NQF VPET is compatible with the level descriptors for the Qualifications Framework for the European Higher Education Area QF EHEA (chapter 2). It is specified in the EQF Recommendation that the QF EHEA descriptor for short cycle studies is equivalent to the learning outcomes required for EQF level 5, the QF EHEA descriptors for the Bachelor qualification are equivalent to the learning outcomes required to attain EQF level 6, those for the Master qualification are equivalent to the learning outcomes required for EQF level 7, and those for the Doctorate qualification are equivalent to the learning outcomes required to attain EQF level 8. The nqf.ch-HS does not contain any descriptors for short cycle studies.

Levels 5 and 6 to 8 of the EQF are not only open to university qualifications, but also to professional education and training qualifications at the tertiary level. In Switzerland PET qualifications are assigned to the NQF VPET. University qualifications on the other hand are assigned to the nqf.ch-HS.

Table 1: National Qualifications Framework for VPET qualifications (NQF VPET)

	Knowledge	Skills	Competences
<p style="text-align: center;">L E V E L 1</p>	<p>Knowledge: Possess basic knowledge specific to the working or learning context and a basic general education.</p> <p>Understanding: Understand basic, general correlations within the working or learning context and able to explain these in one’s own words.</p>	<p>Procedural skills: Able to recognise basic standardised tasks in a specific field to a certain extent.</p> <p>Sensorimotor skills: Able to use specific technical aids and instruments to solve basic standardised tasks in a specific field based on specific operational guidelines.</p>	<p>Professional competences: Possess initial practical experience within a business or similar setting from which further knowledge and skills may be developed. Work can be carried out according to instructions.</p> <p>Personal competences: <u>Autonomy:</u> able to apply the requisite knowledge and skills under instruction or operational guidelines in clearly defined assigned tasks within a business or similar setting and adhering to mandatory guidelines. <u>Social competences:</u> able to adapt one’s own behaviour to the situation at hand and interact appropriately with others, work within a team and convey information both verbally and in writing.</p>

	Knowledge	Skills	Competences
<p style="text-align: center;">L E V E L 2</p>	<p>Knowledge: Possess basic knowledge specific to the working or learning context and a basic general education.</p> <p>Understanding: Understand the general correlations within the specific working or learning context or branch and able to explain these in one's own words.</p>	<p>Procedural skills: Able to recognise and handle standardised tasks in a specific field to a certain extent based on operational guidelines.</p> <p>Sensorimotor skills: Able to use specific technical aids and instruments to solve standardised tasks in very familiar situations in a specific field based on operational guidelines.</p>	<p>Professional competences: Drawing from initial work experience, able to use the requisite knowledge and skills at this level to carry out organised and planned work within a business. Work can be carried out according to instructions.</p> <p>Personal competences: <u>Autonomy:</u> able to apply the requisite knowledge and skills to assigned tasks in a specific field partly on one's own. Able to assist in the planning of simple tasks within a specific field and carry out these tasks in accordance with mandatory guidelines.</p> <p><u>Social competences:</u> able to adapt one's behaviour to the situation at hand and interact appropriately with others, work within a team and convey simple information from the specific field both verbally and in writing in a suitable form.</p>

	Knowledge	Skills	Competences
<p style="text-align: center;">L E V E L 3</p>	<p>Knowledge: Possess knowledge specific to the working or learning context and general education.</p> <p>Understanding: Understand the correlations within the specific working or learning context or branch and able to explain these in one's own words.</p>	<p>Procedural skills: Able to recognise tasks in a specific field. Able to carry out tasks based on operational guidelines and known problem-solving strategies.</p> <p>Sensorimotor skills: Able to use specific technical aids and instruments to solve standardised tasks in familiar situations in a specific field based on operational guidelines.</p>	<p>Professional competences: Drawing from work experience, able to use the requisite knowledge and skills at this level to ensure the successful application of working techniques and basic working processes within a business. Work can partly be carried out on one's own.</p> <p>Personal competences: <u>Autonomy:</u> able to apply the requisite knowledge and skills in a specific field partly on one's own. Within the specific field, able to share responsibility for simple tasks and adhere to mandatory guidelines. <u>Social competences:</u> able to adapt one's behaviour to the situation at hand and the needs of others, work within a team and convey information from the specific field both verbally and in writing in a suitable form.</p>

	Knowledge	Skills	Competences
<p style="text-align: center;">L E V E L 4</p>	<p>Knowledge: Possess more in-depth knowledge specific to the working or learning context and general education. Also able to acquire on one's own specific technical knowledge.</p> <p>Understanding: Understand the correlations within the specific working or learning context or branch as well as from thematically related fields and able to explain these in one's own words.</p>	<p>Procedural skills: Able to recognise tasks in a specific field. Able to carry out tasks based on operational guidelines or through the use of known problem-solving strategies.</p> <p>Sensorimotor skills: Able to use specific technical aids and instruments to solve particularly difficult tasks in familiar situations in a specific field based on operational guidelines or with the help of known methods or tools. Able to use basic means of communication.</p>	<p>Professional competences: Drawing from work experience, able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes within a business. Work can be performed on one's own. Able to supervise routine tasks of other persons.</p> <p>Personal competences: <u>Autonomy:</u> able to apply the requisite knowledge and skills in a specific field mostly on one's own. Within the specific field, able to take responsibility for clearly defined tasks and handle changing requirements. <u>Social competences:</u> able to adapt one's behaviour to the situation at hand and the needs of others, work within a team and convey information from the specific field both verbally and in writing in a suitable form. <u>Leadership competences:</u> able to show other workers how to perform a specific set of tasks within a given working context.</p>

	Knowledge	Skills	Competences
<p style="text-align: center; font-size: 2em; font-weight: bold;">L E V E L 5</p>	<p>Knowledge: Possess extensive knowledge of important areas of work and a more in-depth general education. Also able to acquire on one's own specific technical knowledge.</p> <p>Understanding: Understand the correlations within or outside the specific working context or branch and able to explain these in one's own words.</p>	<p>Procedural skills: Able to recognise and analyse tasks in a specific field. Able to carry out tasks based on operational guidelines or through the use of known problem-solving strategies.</p> <p>Sensorimotor skills: Able to suitably prepare and use specific technical aids and instruments to solve fairly difficult tasks in various situations in a specific field based on operational guidelines or with the help of known methods or tools. Able to use basic means of communication properly and present information from the specific field.</p>	<p>Professional competences: Drawing from work experience, able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes within a business. Work can be performed in the form of independent and strategic activities. Able to supervise and guide routine tasks of other persons.</p> <p>Personal competences: <u>Autonomy:</u> able to apply the requisite knowledge and skills in a specific field on one's own. Within the specific field, able to take responsibility for tasks and handle changing requirements. <u>Social competences:</u> able to reflect on one's own role and adapt one's behaviour to the situation at hand and the needs of others, work within a team and convey information from the specific field both verbally and in writing in a precise and suitable form. <u>Leadership competences:</u> able to manage workers in several specific fields of activity within a given working context</p>

	Knowledge	Skills	Competences
L E V E L 6	<p>Knowledge: Possess advanced knowledge in all important areas of work and more in-depth general education. Also able to acquire on one's own specific technical and interdisciplinary knowledge.</p> <p>Understanding: Understand the correlations within or outside the specific working context or branch and able to see linkages with thematically related fields</p>	<p>Procedural skills: Able to recognise, analyse and assess complex tasks in a specific field. Able to carry out tasks based on operational guidelines or through the use of known problem-solving strategies.</p> <p>Sensorimotor skills: Able to suitably prepare and use specific technical aids and instruments to solve difficult tasks in various situations in specific fields based on suitable and known methods or tools. Able to use basic means of communication properly and present information from the specific field.</p>	<p>Professional competences: Drawing from versatile work experience, able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes and produce strategic results within a business. Work can be performed in the form of independent and strategic activities as well as in the form of consulting. Able to handle complex technical activities and projects and take important decisions.</p> <p>Personal competences: <u>Autonomy:</u> able to apply the requisite knowledge and skills in a specific field and thematically related fields on one's own. Within the entire specific field, able to take responsibility for tasks and processes and handle changing requirements. <u>Social competences:</u> able to reflect on one's own role and the role of others and conscientiously maintain these roles in dealings with others, work within a team and convey information from the specific field both verbally and in writing in a precise, understandable and suitable form. <u>Leadership competences:</u> able to manage workers in several fields of activity within a given working context, partly assume responsibility for these workers and support them.</p>

	Knowledge	Skills	Competences
<p>L E V E L 7</p>	<p>Knowledge: Possess advanced, solid and detailed knowledge of all important areas of work and extensive general education. Also able to acquire on one's own specific technical and interdisciplinary knowledge.</p> <p>Understanding: Understand the complex correlations within or outside the specific working context or the branch and able to see interdisciplinary linkages with thematically related or unrelated fields.</p>	<p>Procedural skills: Able to recognise, analyse and assess complex tasks in a given interdisciplinary field. Able to carry out tasks based on operational guidelines or through the use of suitable, innovative problem-solving strategies.</p> <p>Sensorimotor skills: Able to suitably prepare and use specific technical aids and instruments to solve very difficult and challenging tasks in every situation from thematically related fields based on suitable and at times entirely novel methods or tools. Able to make full use of the possibilities of various means of communication and present complex information from the specific field.</p>	<p>Professional competences: Drawing from versatile work experience, able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes and produce strategic results within a business. Work can be performed in the form of managerial and consulting activities as part of a complex working process and contribute to the further development of the business or improvement of working processes. Able to plan and adopt new strategic approaches to complex, unforeseen activities and projects.</p> <p>Personal competences: <u>Autonomy:</u> able to apply the requisite knowledge and skills in a challenging field and thematically related fields independently and conscientiously. Able to take responsibility for increasingly complex tasks and processes and handle changing requirements. <u>Social competences:</u> able to reflect on one's own role and the role of others, define these roles and conscientiously maintain them in dealings with others. Able to work within a team and to convey complex information from the specific field both verbally and in writing in a precise, understandable and suitable form, having the desired impact on and being tailored to the intended recipients. <u>Leadership competences:</u> able to manage workers in a field of activity within a given working context, completely assume responsibility for these workers and support them in a targeted fashion.</p>

	Knowledge	Skills	Competences
L E V E L 8	<p>Knowledge: Possess advanced, solid, specialised, detailed and systematic knowledge in all areas of work and extensive general education. Also able to acquire on one's own specific technical and interdisciplinary knowledge.</p> <p>Understanding: Understand the complex correlations within or outside the specific working context or branch and able to see interdisciplinary linkages with complex thematically related or unrelated fields.</p>	<p>Procedural skills: Able to fully recognise, analyse and assess complex and highly challenging tasks in a given interdisciplinary specific field. Able to carry out tasks based on operational guidelines or through suitable, innovative problem-solving strategies and make relevant prognoses or recommendations.</p> <p>Sensorimotor skills: Able to suitably prepare and use specific technical aids and instruments to solve novel, very difficult and highly challenging tasks in every situation from thematically related fields based on suitable and entirely novel or innovative methods or tools. Able to make full use of the possibilities of various means of communication and present complex and differentiated information from the specific field.</p>	<p>Professional competences: Drawing from extensive work experience, able to use the requisite knowledge and skills at this level in a targeted fashion to ensure smooth operation of one's own working processes and produce strategic results within a business. Work can be performed in the form of managerial and consulting activities as part of one or more complex working processes and contribute to the further development of the business or improvement of working processes.</p> <p>Personal competence: <u>Autonomy:</u> able to fully and conscientiously apply the requisite knowledge and skills in a specific highly challenging field and thematically related fields on one's own. Able to take responsibility for complex tasks and processes and handle changing requirements within the entire highly challenging field. <u>Social competences:</u> able to reflect on and shape one's own role and the role of others, behave responsibly in dealings with others, work in a team and strategically apply one's analytical skills within the working context. Able to convey complex and differentiated information from the specific field both verbally and in writing in a precise, understandable, suitable and professional form, having the desired impact on and being tailored to the intended recipients. <u>Leadership competences:</u> able to manage workers in a highly challenging field of activity within a given working context, completely assume responsibility for these workers and support them in a targeted fashion to take personal initiative.</p>

3.3 Implementation of the NQF for VPET qualifications in Switzerland

3.3.1 Drafting the NQF for VPET qualifications and legal basis

In Switzerland the national qualifications framework is implemented on the basis of the Ordinance on the National Qualifications Framework for VPET qualifications. The NQF VPET and the associated ordinance was drafted by SERI and was consolidated together with its respective VPET partners and other stakeholders by means of the following steps:

- At the end of 2010/beginning of 2011 the former Federal Office for Professional Education and Technology (OPET)⁵⁹ commissioned three expert reports⁶⁰ on the establishment of a national qualifications framework (levels, descriptors) and the correlations between the various educational sectors.
- A draft of the NQF VPET was presented at round-table discussions with the respective VPET partners in 2011. Members of the Swiss-wide umbrella organisations for business and industry⁶¹, other interested stakeholders from the vocational education sector (mostly representatives of professional organisations) and from the Federal Commission for Vocational and Professional Education and Training FCVPET⁶² were invited. The FCVPET is an extra-parliamentary administrative commission⁶³ which supports SERI with expert knowledge and represents the interests of organisations from politics, business and civil society.

A common feature of all round-table discussions was the general acceptance of the instruments to be used. The benefits of the NQF VPET and the certificate/diploma supplements were undisputed by all present and the preliminary work undertaken by OPET received generally positive feedback. It was emphasised that the participants greatly welcomed the involvement of professional organisations and considered this to be important for the future as well.

A preliminary draft of the Ordinance on the National Qualifications Framework for VPET qualifications was then produced by OPET.

- In 2012 the draft NQF VPET ordinance entered the consultation phase⁶⁴. Over 80 responses were received from cantons, professional organisations, the Rectors' Conferences of the Universities and other interested parties⁶⁵.

The aim of the draft ordinance to make Swiss vocational and professional qualifications more transparent and more readily comparable internationally was widely welcomed by all respondents. The following points of criticism were however raised:

Change to scope: The ordinance is based on the Federal Act on Vocational and Professional Education and Training (VPETA) and is therefore restricted to the formal vocational and professional qualifications that are regulated by VPETA. Some respondents wanted an overall framework covering both VPET and university qualifications, while a minority requested the inclusion of non-formal qualifications.

⁵⁹ Until the end of 2013 the Federal Office for Professional Education and Technology was the ministerial office responsible for vocational and professional education and training. From 1 January 2014 OPET and the State Secretariat for Education and Research were combined to form the joint State Secretariat for Education, Research and Innovation.

⁶⁰ The three experts were Prof.(em.) Dr. Dr. h.c. mult. Frank Achtenhagen (University of Göttingen, President of the SERI Steering Committee for VET Research), retired university professor Dr. Klaus Beck (Johannes Gutenberg University Mainz, member of the SERI Steering Committee for VET Research) and Prof. Dr. Andreas Frey (Rector, University of the Federal Employment Agency (HdBA)).

⁶¹ These comprise: Swiss Business Federation *economiesuisse*, Swiss Federation of SMEs (SGV), Swiss Employers' Association, Swiss Farmers' Union (SBV), Swiss Bankers Association (SBA), Swiss Federation of Trade Unions (SGB), Swiss Commercial Employees' Association (KV Schweiz) and Travail.Suisse (umbrella organisation for employees).

⁶² www.admin.ch/ch/d/cf/ko/index_208.html, 2.01.2015.

⁶³ www.admin.ch/bundesrecht/ko/index.html?lang=de, 2.01.2015.

⁶⁴ All the consultation documents can be viewed at: www.admin.ch/ch/d/gg/pc/ind2012.html#EVD, 5.01.2015.

⁶⁵ The final report (in German), in which all the responses are collated, can be viewed here: www.admin.ch/ch/d/gg/pc/documents/2174/Qualifikationsrahmen_Ergebnisbericht_de.pdf.

Principle of assignment of vocational qualifications (VET) and professional qualifications (PET) to the NQF VPET: Some respondents agreed with the proposal to assign each VPET qualification individually, but wished to see greater emphasis placed on the role of professional organisations. Others wished to see a uniform assignment level, i.e. each type of qualification being assigned to only one level in the framework.

Format and issuing of diploma and certificate supplements: There were different opinions regarding the format and issuing of diploma supplements. On the one hand, some wished to keep the existing diploma supplement for VET qualifications as short as possible, while on the other hand there were to be two types of document in future: a certificate supplement in accordance with the Europass standard for VET qualifications and a personalised diploma supplement in accordance with the Europass standard for PET qualifications.

- The draft was revised in response to the feedback and in 2013 was consolidated at a second round-table meeting with social partners and representatives of the VPET sector⁶⁶. The principle of assignment was amended so that the professional organisations could assign their own qualifications to the NQF VPET themselves in a differentiated way. New certificate supplements were proposed for VET qualifications, while diploma supplements continued to be used for PET qualifications. Owing to the different regulatory powers, the prioritisation of formal VPET qualifications and the lack of official foundations in the non-formal sector, it was not possible to alter the scope (section 2.2).

The participants were generally in agreement with the changes and were able to identify more strongly with the draft and envisage its implementation.

Following these consultations, SERI continually updated its VPET partners and other stakeholders on progress with the adoption of the ordinance and preparations for its implementation. This primarily concerned the technical details for implementing the NQF VPET, such as the format of the certificate and diploma supplements as well as working out the details of the actual assignment process. In 2014 three pilot projects were launched to trial the assignment process (section 3.3.3).

The Federal Commission for Vocational and Professional Education and Training (FCVPET) was involved throughout the drafting process. FCVPET always advises SERI in matters concerning the development and coordination of vocational and professional education and training, and its coordination with general education and funding policy. The Commission appointed by the Federal Council comprises 15 representatives from the federal government, the cantons and professional organisations, namely from SERI, the universities, the cantons, VET schools, large business federations and social partners⁶⁷. The various language regions of Switzerland are also commensurately represented on the Commission.

The sense of co-ownership of the VPET stakeholders for the NQF VPET project is fundamentally strong. Since the awarding bodies will assign their qualifications to a level in the NQF VPET themselves, it is anticipated that this will further strengthen their co-ownership and trust in the system. One issue that could still not be resolved to the satisfaction of all the stakeholders even after the revision is the non-inclusion of the higher education framework and qualifications attained outside of formal education and training.

SERI has decided to begin by assigning the qualifications that fall within its remit and gather some initial experience with this work. Chapter 5 sets out the next steps planned.

⁶⁶ The following organisations were invited: Conference of Swiss VET/PET Offices (SBBK), Swiss Federation of SMEs (SGV), Conference of Swiss VET/Colleges of Higher Education, SavoirSocial (Swiss umbrella organisation for social work), Swiss Conference of Cantonal Ministers of Education (EDK), Swiss Association of HPC graduates (ODEC), Dualstark (Conference of Vocational and Professional Examinations), Swiss Federation of Professional Healthcare Associations (SVBG), Swiss Commercial Employees' Association (KV Schweiz), Swiss Federation of Trade Unions, AgriAlliForm (professional organisation for agricultural sector), Swiss Federation for Adult Learning (SVEB), OdASanté (national umbrella organisation for healthcare workers), Travail.Suisse (umbrella organisation representing employees), Swiss Employers' Association.

⁶⁷ Swiss Employers' Association, Swiss Federation of SMEs (SGV), SavoirSocial (Swiss umbrella organisation for social work), Swiss Commercial Employees' Association (KV Schweiz), Swiss Federation of Trade Unions (SGB), Swiss Farmers' Union (SBV), OdA Santé (national umbrella organisation for healthcare workers), Travail.Suisse (independent umbrella organisation representing employees).

On entering into force of the ordinance, the formal VET and PET qualifications are assigned to the levels of the NQF VPET. The assignment procedure will be explained in detail in the next section.

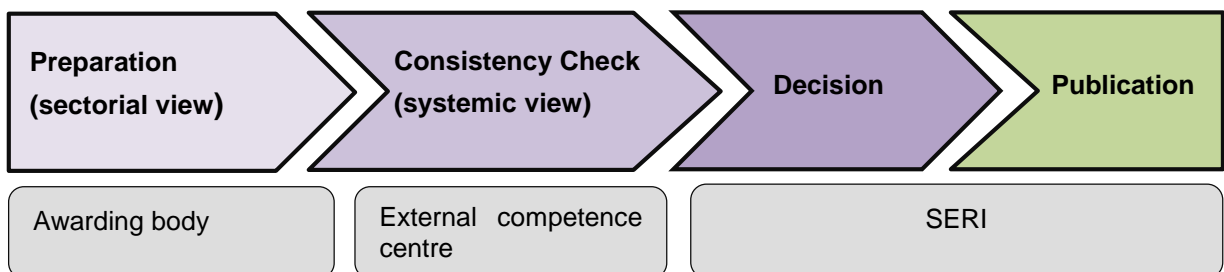
3.3.2 Process for assignment qualifications to the NQF VPET

The consensual assignment process is designed in accordance with proven VPET partnership procedures. This means that the qualification awarding body (professional organisations, Colleges of Higher Education in collaboration with professional organisations in the case of professional education and training courses) perform the assignment, while an external competence centre (Swiss Federal Institute for Vocational Education and Training, SFIVET) verifies consistency and SERI takes the decision. This procedure firstly enables the knowledge of the awarding bodies about their qualifications to be utilised, and secondly ensures coherence within the education system. This creates solid foundations for widespread acceptance of the assignment levels. The focus on competences in the NQF VPET is ensured by assignment on the basis of the professional competences described in the basic reference documents⁶⁸ of the VPET qualifications. This mechanism additionally serves as a catalyst for revising the VET and PET qualifications whose basic reference documents have not yet been drafted on the basis of professional competences.

To help the awarding bodies assign their qualifications, SERI has drawn up assignment guidelines. The qualification awarding body always submits an NQF level proposal for a qualification. The specific procedure and the process from the submission of a proposal by the awarding body through to publication of the level of the qualification are described in detail in the Guidelines on the National Qualifications Framework for VPET qualifications⁶⁹. The guidelines can be found in Annex 6.4.

In addition, SERI and the Swiss Federal Institute for Vocational Education and Training offer training courses to assist with implementing the NQF VPET and with drafting the certificate and diploma supplements over the first three years of implementation.

The assignment process is broadly as follows:



First the qualification awarding bodies prepare a NQF level proposal on the basis of the competences described for the qualification. As the external competence centre mandated by SERI, SFIVET then verifies the consistency of the assignment and compliance with the scheme logic. SERI then takes the final decision on assignment.

The awarding bodies should submit initial NQF level proposals within three years of the NQF VPET ordinance entering into force. Following the initial assignment, the assignment to the NQF VPET will be integrated in existing procedures for reviewing or revising vocational and professional qualifications⁷⁰. The individual steps of the initial assignment process are outlined below (cf. page 15 of guide in Annex 6.4).

⁶⁸ Basic reference documents comprise: ordinances on vocational education and training, examination regulations for federal examinations, plus core syllabuses for courses at Colleges of Higher Education.

⁶⁹ The current valid version can be retrieved from: www.sbf.admin.ch/nqr/02439/index.html?lang=de.

⁷⁰ In detail this refers to the enactment of VET ordinances as well as the approval of examination regulations and core syllabuses for courses at Colleges of Higher Education.

Drafting a NQF level proposal

Once an awarding body is ready to assign its qualifications, it applies to SERI for a ticket. After receiving the ticket, the awarding body performs the assignment with the aid of the guide provided by SERI (Annex 6.4). The awarding body then first draws up a list of the qualifications for which it is responsible and assigns each individual qualification to a level on the NQF VPET. A certificate supplement or a diploma supplement respectively must also be prepared for each qualification. The assignment is based on the basic reference documents for a qualification and is performed on the basis of the legally binding descriptions of the competences set out in these documents. Basic reference documents are defined as follows:

- VET ordinance and training plan for vocational education and training for VET qualifications⁷¹
- Examination regulations and guidelines for federal examinations⁷²
- Core syllabuses for courses at Colleges of Higher Education⁷³

Since the terminology used to describe the competences in the basic reference documents sometimes differs from the terminology of the NQF VPET, a translation aid was created for the awarding bodies. This Grid of professional competences based on NQF VPET forms part of the guidelines and describes the levels of the NQF VPET using the terminology known to the awarding bodies from the drafting of the basic reference documents (professional competences, methodological competences, personal autonomy and social skills or knowledge, abilities and attitudes).

The awarding body may apply to the federal government for financial assistance to cover the work required for drafting the proposal and drawing up the certificate and diploma supplements. The awarding body may also obtain external assistance with drafting its proposal. The awarding body may organise the drafting process as it wishes: it may decide to form new bodies or to involve existing ones. Once this work has been completed, the awarding body submits the NQF level proposal to SERI.⁷⁴

Verification of consistency with scheme logic

Following an initial formal check, SERI passes the NQF level proposal on to SFIVET for a consistency check. This consistency check ensures that all VPET qualifications will be uniformly and neutrally evaluated and checked, and verifies the correctness of the assignment as well as coherence within the overall VPET system.

In the event of any conflicts, SFIVET will discuss the matter with the awarding body in order to reach a consensus. Once consistency has been verified, SFIVET communicates its recommendation regarding the awarding body's NQF level proposal to SERI, highlighting any remaining differences.

Decision and publication

SERI is responsible for the definitive assignment decision. Before deciding, SERI will also consult the Federal Commission for Vocational and Professional Education and Training FCPET.

The assigned VPET qualifications will be added to the list in accordance with the Ordinance on the National Qualifications Framework for VPET qualifications Art 7, at which point they become binding. A reference to this list will also be added to the following:

- The training plan in the case of a Federal Certificate or Diploma of Vocational Education and Training
- The examination regulations in the case of Federal Diploma of Higher Education and Advanced Federal Diploma of Higher Education

⁷¹ VPETA Art 19, 1; VPETO Art 12.

⁷² VPETA Art 28, 2 and 3; VPETO Art 26.

⁷³ MiR-PC Art 6, 1 and 2, Art 7.

⁷⁴ The qualifications for VET professionals will be assigned by SERI as the awarding body responsible for these qualifications (VPETO Art 49).

- The core syllabus in the case of the Advanced Federal Diploma of Higher Education from a College of Higher Education.

3.3.3 Piloting the NQF grid and assignment methodology

As part of developing the NQF for the VPET system and assignment the qualifications, in 2011 the former Federal Office for Professional Education and Technology (OPET) carried out assignment trials internally, without input from its VPET partners, for around 60 qualifications. The assignment served only to improve and develop the NQF grid and the assignment methodology. The results of the trial assignment have no legal validity and were also not published. However, it became clear at approximately what levels the qualifications would be situated. This is explained further in 4.3.4.

In 2014 the SERI conducted trial assignment of qualifications to the NQF VPET with three sectors. The awarding bodies played a key role and performed a substantial part of the work involved. The results of the pilot projects have no legal validity as they were produced before the ordinance came into force. However, to a large extent the awarding bodies will be able to utilise the work carried out when they officially submit an NQF level proposal. The levels for the qualifications set out below are only suggestions by the awarding bodies and are not yet valid.

The trial assignment runs were intended to test the methodology of assignment as well as the clarity of the guidelines provided for the awarding bodies as a guide on how to proceed when assigning qualifications and drafting certificate and diploma supplements.

Three sectors were involved in this pilot phase:

1. ICT
2. Hotels and catering
3. Dairy industry

NQF level proposals were drawn up in accordance with the guidelines for at least one qualification per qualification type and draft certificate and diploma supplements were produced. The guidelines, the proposal forms and the templates for the certificate and diploma supplements were then revised and improved during the pilot phase on the basis of feedback from the awarding bodies.

The proposals submitted during the pilot phase were also checked by SFIVET and feedback was provided to the awarding bodies. Since there is not yet any definitive result from consistency verification because of the low number of proposals, it will only be possible to reach definitive conclusions about the proposed levels once the awarding bodies have submitted their proposals in the normal process under the current procedure.

ICT

ICT Berufsbildung Schweiz is the sole awarding body for its qualifications. The assignment was performed by two experts who had already previously developed and revised qualifications for ICT Berufsbildung Schweiz.

From the outset ICT Berufsbildung Schweiz was generally of the opinion that the procedure described in the guidelines is clear and implementable. Detailed discussions were held principally about the question of what weighting to attach to the various areas of competence. The outcome of these discussions was the now valid rule that the reasons for such weighting must be stated in the proposal. These reasons must also concur with the basic reference documents.

The following NQF level proposals were submitted for ICT:

Qualification	Proposed level
ICT Assistant, Federal Certificate of Vocational Education and Training	3
ICT Specialist, Federal Diploma of Vocational Education and Training in IT Operations Management	5

ICT Specialist, Federal Diploma of Vocational Education and Training in Application Development	5
Mediamatics Specialist, Federal Diploma of Vocational Education and Training	5
Business IT Specialist, Federal Diploma of Higher Education	6
ICT Manager, Advanced Federal Diploma of Higher Education	7

Hotels and catering

A working group comprising representatives of various awarding bodies in the industry already existed prior to the request for an assignment trial from the SERI. Various compositions of the working group are responsible for around 20 qualifications (Hotel & Gastro formation, GastroSuisse, Hotel & Gastro Union, hotelleriesuisse, Colleges of Higher Education/hotel schools). The heterogeneity of the working group meant that the assignment trials took longer than the ones for ICT, but it enabled the industry to reflect also on the positioning of its various qualifications during the assignment process. As a result of the NQF assignment process, the general point emerged that various sectors could consider whether some qualifications should perhaps be focused differently.

The following NQF level proposals were submitted for hotels/catering:

Qualification	Proposed level
Hotel Housekeeping employee, Federal Certificate of Vocational Education and Training	3
Chef, Federal Diploma of Vocational Education and Training	4
Hotel/Restaurant Manager, Advanced Federal Diploma of Higher Education from a College of Higher Education	6
Head Chef, Federal Diploma of Higher Education	6
Hotel/Housekeeping Services Manager, Advanced Federal Diploma of Higher Education	7

Dairy industry

The Swiss Dairy Association (SMV) is the sole awarding body for the occupations it is responsible for. The assignment was carried out by its Director. Particularly interesting in this case from the point of view of consistency verification were the terminological differences in the descriptions of competences. For instance, there is a 'Milk technology' qualification at the Federal VET Diploma level and there is also a qualification termed 'Milk technology' at the Federal Diploma of Higher Education level. As a result it was possible to directly compare the descriptions of the same activity at different standards. This example clearly demonstrates that the requirement in the assignment process for an awarding body to reference all its qualifications at the same time is essential to maintain the coherence of the scheme.

Qualification	Proposed level
Milk Technologist, Federal Diploma of Vocational Education and Training	4
Milk Technologist, Federal Diploma of Higher Education	6

Conclusion:

All awarding bodies were able to perform the assignment with the help of the tools provided. The pilot phase was essential to improve these tools and to test run all the processes. In addition, on the basis

of the difficulties encountered during the pilot phase, a half-day training course including practical workshops was developed. This will now be run regularly over the next three years.

3.3.4 Broad trends in levels of qualifications assigned to the NQF VPET

Based on the logic of the VPET system and the experience gained during the trial assignment of around 60 qualifications by OPET, from assignment trials with selected awarding bodies, and from the initial assignment already carried out by awarding bodies, the distribution of qualifications across the levels of the NQF VPET is broadly as depicted below.

The Swiss VET and PET qualifications have developed over time. The former guilds offered training in order to ensure that the younger generation acquired the skills to carry on the profession. At that time 'Master' was the highest qualification that could be attained in any professional field. Qualifications have moved on since then, but the principle remains the same: the Advanced Federal Diploma of Higher Education Examination, for which an Advanced Federal Diploma of Higher Education is awarded, i.e. what used to be the Master qualification, is still the highest qualification that may be attained in a professional field. Since the demands of the highest qualification vary between professional fields and from industry to industry, although the qualifications have the same name they may well be situated on different levels of the NQF VPET. The spread is not unlimited however, since the qualifications follow the logic of the Swiss education system. This means that qualifications at upper-secondary level (Federal VET Certificate/Federal VET Diploma) are lower than qualifications at tertiary level (Federal Diploma of Higher Education and Advanced Federal Diploma of Higher Education as well as Advanced Federal Diplomas of Higher Education from Colleges of Higher Education). In addition, according to the legislation⁷⁵ the Advanced Federal Diploma of Higher Education is a higher qualification level than the Federal Diploma of Higher Education.

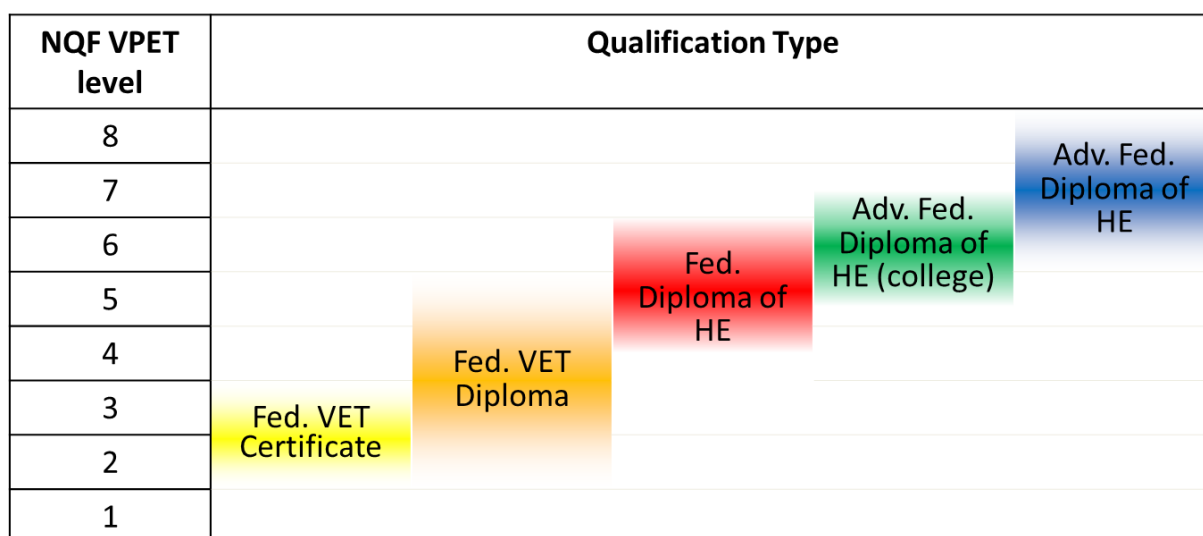


Figure 13: Broad trends in levels of qualifications assigned to the NQF VPET

The distribution of qualifications with the same title across several levels can be illustrated by means of the following example. Within the occupational field of catering, the Federal Certificate of Vocational Education and Training for Kitchen Employee has been assigned to level three and the Federal Diploma of Vocational Education and Training for Dietary Chefs has been assigned to level four. In tertiary level professional education and training within the same occupation, the qualification the Federal Diploma of Higher Education for Catering Operations Manager has been assigned to level six, while the Advanced Federal Diploma for Catering Manager has been assigned to level seven. So the classification within the catering profession for each type of qualification is as follows:

Federal Certificate of Vocational Education and Training Level 3

⁷⁵ VPETO Art 23, 1.

Federal Diploma of Vocational Education and Training	Level 4
Federal Diploma of Higher Education	Level 6
Advanced Federal Diploma of Higher Education	Level 7

In the field of pharmacy, the Federal Diploma of Vocational Education and Training for Pharmaceutical Assistant has been assigned to level three. In tertiary level professional education and training, the Federal Diploma of Higher Education for Pharmaceutical Operations Assistant has been assigned to level five. In this case, the classification per qualification type is as follows:

Federal Diploma of Vocational Education and Training	Level 3
Federal Diploma of Higher Education	Level 5

The qualifications have therefore been ranked logically in the NQF VPET within each industry sector. However, the above example illustrates that this does not necessarily mean that qualifications with the same title will be assigned to the same level.

This type of differentiated assignment of qualifications in accordance with the learning outcomes listed in the principles was requested by the VPET stakeholders when the NQF VPET was drawn up (see section 3.3.1 Drafting the NQF for VPET qualifications and legal basis). During implementation, it is now clear that this individual classification procedure has been accepted. However, several awarding bodies are concerned that their training could be devalued if it is classified at a lower level than other qualifications of its type. On the whole, at the start of the implementation phase (autumn 2015), it is apparent that what matters most to awarding bodies is that their qualifications are classified consistently compared with similar qualifications within the same industry sector. It has not yet been possible to obtain any further feedback or findings.

4 Referencing criteria

The procedure used to develop and implement the NQF VPET conform to the referencing criteria drawn up by the EQR Advisory Group⁷⁶. It will be discussed in detail in this chapter.

4.1 Criterion 1

The responsibilities and/or legal competence of all relevant national bodies involved in the referencing process, including the National Coordination Point, are clearly determined and published by the competent public authorities.

The responsibilities of the bodies involved in the referencing process are clearly defined in the "Ordinance on the National Qualifications Framework for VPET Qualifications" (Annex 6.3), based on the Federal Vocational and Professional Education and Training Act, Art 34. 1 and Art 65, and set out in more detail in the explanatory report to the ordinance.

SERI as competent state body

The formal vocational qualifications which are to be assigned are subject to the Federal Act on Vocational and Professional Education and Training (VPETA) and all come within the remit of the SERI (Art 2 of the Ordinance on the National Qualifications Framework for VET Qualifications). Consequently, the SERI is responsible for the entire assignment process. The SERI also acts as the national coordination body, since in its capacity as the expert body for the national qualifications framework for VPET it provides information on this subject to awarding bodies and all other interested parties, and offers assistance in the assignment of qualifications. The expert body for the national qualifications framework for VPET within the SERI also receives NQF level proposals and coordinates the assignment process from the proposal until publication of the level.

SFIVET as external competence centre consistency check

The SFIVET is the Swiss expert organisation for the initial and continuing training of VET professionals, for career development and for research in VPET⁷⁷. It liaises between the professional organisations and among the cantons. As a national institute, the SFIVET has an important role as a central point of contact for these partners in all matters relating to development plans and to the initial and continuing training of VET professionals. In these capacities the SFIVET performs various tasks and research activities on behalf of the SERI.

On the basis of the Strategic Objectives for 2013-2016 adopted by the Federal Council on 5 September 2012 for the Board of the Swiss Federal Institute for Vocational Education and Training SFIVET (Strategic Objectives 2013-2016)⁷⁸, the SFIVET was instructed by the SERI to support the implementation of the National Qualifications Framework for VPET. Cooperation between the SERI and the SFIVET is governed by the service definition "External competence centre responsible for examining the consistency of assignment of VPET qualifications in the national qualifications framework for VPET qualifications" of June 2014, which also states that the SFIVET guarantees the independence of individuals and organisations charged with checking consistency.

The SFIVET performs a consistency check to guarantee the equal treatment of all qualifications, coherence of assignment and compliance with the system parameters. The SFIVET follows the methodology

⁷⁶The official referencing criteria were drawn up only in English ("Criteria and procedures for referencing national qualifications levels to the EQR" http://ec.europa.eu/egf/documentation_en.htm, consulted on 22.05.2014). The German translations in the German report were taken from the Austrian referencing report (bmukk and bmwf, 2011). The relevant Austrian authorities have been notified of this.

⁷⁷ In accordance with the SFIVET Ordinance: <http://www.admin.ch/opc/en/classified-compilation/20051627/index.html>, 05.01.2015.

⁷⁸ Strategic objectives: http://www.ehb-schweiz.ch/de/ehb/rechtsgrundlagen/Documents/Strateg_Ziele_BR_2013-2016.pdf, 05.01.2015.

set out in the guidelines to ascertain whether the competences match the descriptions in the basic reference documents and whether their assignment to a level in the NQF VPET is plausible. If the SFIVET finds the proposals from awarding bodies plausible, it passes on the outcome of its check to the SERI.

Involvement of members of the tripartite partnership agreement

The assignment process follows the tried and tested tripartite partnership agreement procedure and involves the cantons, professional organisations and Colleges of Higher Education in the creation of the NQF VPET and in the assignment process. The individual steps and the responsibilities in relation to the assignment of qualifications in the NQF VPET are described in detail in the guidelines on the NQF VPET (Annex 6.4). The SERI makes these guidelines available to the organisations that award the qualifications⁷⁹.

Before a final decision is made on assignment, the SERI consults the Federal Commission for Vocational and Professional Education and Training (FCVPET) twice a year. As the FCVPET has been in existence since 1970⁸⁰ and has the necessary experience, it was decided to revert to this method of involving the members of the tripartite partnership agreement and cantons in the assignment process. The advantage of this is that there is no need to set up a new body for the implementation of the NQF VPET.

A major launch event was held in October 2014 to inform Swiss stakeholders directly and indirectly affected about the implementation of the NQF VPET. The topics discussed included the NQF VPET, certificate supplements and diploma supplements and the practical details of the assignment process. This event is one of the measures taken to support the implementation of the NQF VPET. Information events will be provided by the SERI in association with the SFIVET over the following three years. They are aimed at people who assign qualifications in the NQF VPET. The events provide a detailed explanation of the assignment process and on producing certificate supplements and diploma supplements. All the relevant documents are also available via the SERI website⁸¹. The ordinance can also be obtained from the collection of official documents of the federal government.

4.2 Criterion 2

There is a clear and demonstrable link between the qualifications levels in the national qualifications framework or system and the level descriptors of the European Qualifications Framework.

The levels and descriptors of the EQF were the basis for the development of the national qualifications framework for VPET. The NQF VPET uses the same levels as the EQF. The descriptors are also very similar to those in the EQF, although some terminological adjustments have been made to reflect the VPET system in Switzerland.

4.2.1 Development of the NQF VPET

Levels of the NQF VPET

Early on in the process of development it was decided that the NQF VPET should have the same number of levels as the EQF in order to make direct comparison easier by having similar grids. As in the EQF, level 1 would indicate the lowest level and level 8 the highest.

In the nqf.ch-HS, levels 1-3 apply only to university degrees. In parallel to this, levels 6, 7 and 8 of the NQF VPET can apply to tertiary VPET qualifications. When devising the level descriptors for the NQF VPET, care was taken to avoid conflicts with the nqf.ch-HS descriptors. However, university-specific

⁷⁹ Professional organisations for basic vocational training and national examinations; for courses given at Colleges of Higher Education, professional organisations in conjunction with the Colleges of Higher Education.

⁸⁰ VPETA (19 April 1978) Art 66, 3: "The Federal Council appoints a national vocational and professional education and training commission, which considers fundamental issues of legislation and enforcement for the national authorities." The Federal Council set up this commission in November 1970. It was enshrined in law in 1978.

⁸¹ Documents available at: <http://www.sbf.admin.ch/nqr/index.html?lang=en>, 05.01.2015

content was not adopted. This means that the descriptors of levels 6, 7 and 8 of the NQF VPET complement the corresponding descriptors of the Qualifications Framework for the Swiss Higher Education Area. For that reason, levels 1 to 3 of the existing nqf.ch-HS system were taken into account when devising these levels.

Descriptors

The description of levels on the basis of level descriptors adheres to the following principle:

- In Switzerland, vocational education is of equal value to, but different from, general education. This is in accordance with Art 61a clause 3 of the Federal Constitution, which requires the federal government and the cantons to give equal social recognition to general and vocational education.
- Practical experience is a core element of the Swiss VPET system. It must be properly taken into consideration. The cumulative effects of practical vocational experience during VPET should feed into competences.
- Qualifications of the same nature (e.g. Federal Diploma of Vocational Education and Training) are not necessarily all assigned on the same level in the NQF VPET. The learning outcomes-oriented approach, suggested by the EU in the Recommendation, should be used. In the case of Switzerland, this is reflected in the approach based on professional competences.

The NQF VPET was initially developed on a theoretical basis. Its descriptors were devised with the help of a taxonomy model (see Figure 7). This model was developed on the basis of the EQF. The following methodological approach was adopted when devising the level descriptions: A search was performed in the basic reference documents for phrases consisting of key words for Swiss VPET which need to be incorporated into the NQF VPET. These key words and phrases describe essential features of the Swiss VPET system. An easy-to-use grid was the outcome.

The taxonomy model was also used to develop a two-step process for assigning qualifications. In each category (knowledge, skills, competences) a question was defined for the first step. This question was used to assign the key word or phrase to a category:

- Knowledge What has he/she learned?
- Skills What does he/she do?
- Competences How does he/she do it?

In the second step the complexity of a key word or phrase could be determined. This was reflected in the level in the NQF VPET.

The NQF VPET grid was tested on around 60 vocational or professional qualifications in 2010 and revised as a result.

It was made accessible to the public for the first time in 2012 during a hearing with Swiss VPET stakeholders. Significant suggestions for improving the NQF VPET were made in the 82 submissions received. For example, early versions of the NQF VPET used terms which were not compatible with the EQF. One instance of this is the designation of competences which were previously designated as transfer competences. The revised version of the NQF VPET was presented to representatives of professional organisations. Their feedback has also been incorporated into the current version of the NQF VPET.

	Knowledge	Skills	Competences
	Declarative level	Procedural & sensorimotor level	Contextual, performative and metacognitive level
Brief definition of categories	<p>STEP 1: WHAT has he/she learned?</p> <p>Knowledge relates to declarative learning – all the facts, principles, theories and definitions in an area of work or learning.</p> <p><u>Knowledge</u></p> <p><u>Understanding</u></p>	<p>STEP 1: WHAT does he/she do?</p> <p>Skills relate to the ability to apply knowledge in order to perform tasks and solve problems.</p> <p><u>Procedural skills</u></p> <p><u>Sensorimotor skills</u></p>	<p>STEP 1: HOW does he/she do it?</p> <p>Competences relate to the regular and routine practising of knowledge and skills in a work context.</p> <p><u>Professional competences</u></p> <p><u>Personal competences</u> (social competences, autonomy, leadership competences)</p>
Expertise at level x (employability, practical orientation)	<p>STEP 2:</p> <p>Defining the complexity of the knowledge:</p> <p>What depth of knowledge and understanding is needed in order to practice this profession?</p> <p>To what extent can knowledge be used in (particular) contexts?</p>	<p>STEP 2:</p> <p>Defining the complexity of transforming skills into actions:</p> <p>To what extent are tools and/or resolution procedures used?</p> <p>Is this skill only used in specific domains or is it used in specific domains and also universally?</p>	<p>STEP 2:</p> <p><u>Professional competences</u></p> <p>Ascertaining the complexity of a routine in a professional context. In what respect can the required professional experience be seen to be of practical value? How much specific practical experience is necessary?</p> <p><u>Personal competence</u></p> <p>How independently are skills practised in a working context? How many instructions are needed in a working context? How much responsibility is assumed in a working context? In what form is specific content conveyed? To what target audience is this content conveyed? What tools are used to convey the content?</p>

Figure 14: NQF VPET taxonomy model

4.2.2 Explanations of the descriptors of the NQF VPET

4.2.2.1 Definitions of categories and sub-categories

1. Knowledge:

The term 'knowledge' is used in the same way as in the EQF:

"1.1 Knowledge denotes all the facts, principles, theories and definitions in a field of work or learning. As this can usually be accessed deliberately, it can also be referred to as factual knowledge. In the national qualification framework, knowledge is divided into knowledge and understanding."

Factual⁸² knowledge relates to theories, concepts and facts or descriptions expressed in language.

The division of knowledge into "factual knowledge" and "understanding" reflects the taxonomy of educational objectives in the cognitive domain devised by Benjamin S. Bloom⁸³ (1956). Bloom defined six levels of competence, of which factual knowledge and understanding are the deepest. The concept was further developed in Switzerland, particularly by Professors Karl Frey and Christoph Metzger at the University of St. Gallen⁸⁴. The purpose of the further development of this taxonomy was to define uniform standards in an aspiration level for education, and in particular for examinations.

"1.2 Knowledge: Pure reproduction of facts and rules."

Knowledge is defined as the reproduction of information in similar situations. Hence, in the context of VPET knowledge means the pure reproduction of information, terms or theories, such as listing and knowing facts and rules.

"1.3 Understanding: The ability to show by examples what is meant by a theory, a fact or a term."

Understanding is defined by the ability to understand as well as to reproduce information. In the context of VPET this means applying knowledge. Understanding allows the individual to find his or her way in specific subjects. He or she can explain to a lay person what is meant by a particular term, fact or theory. Most vocational schools teach at this level of knowledge.

2. Skills:

The term 'skills' is used in the same way as in the EQF:

"2.1 Skills denote the ability to apply knowledge to perform tasks and solve problems. Problem-solving is a rapid and not very arduous process at this level. Skills are therefore well suited to dealing with routine situations. In the national qualification framework, skills are divided into procedural and sensorimotor skills."

Unlike the EQF, the NQF VPET does not divide skills into cognitive skills (logical, intuitive and creative thinking) and practical skills (dexterity and use of methods, materials, tools and instruments) but describes them as procedural and sensorimotor skills.

Procedural and sensorimotor skill denotes practical ability. Routine tasks always have procedural and sensorimotor components. The distinction between these two types of knowledge is important where their acquisition and application are significantly different.

"2.2 Procedural skills: Cognitive procedures followed to carry out routine actions, consisting of a number of 'if... then' rules. These rules guide our action when performing tasks."

⁸² The differentiation between the four types of knowledge (factual, procedural, sensorimotor and situational) is based on the model devised by Hansruedi Kaiser (2001).

⁸³ Bloom, B. et. al. (1956): Taxonomy of educational objectives. The classification of educational goals (Handbook I: cognitive domain). New York, Longmans Green.

⁸⁴ Metzger, Ch, Waibel, R., Henning, C., Hodel, M. & Luzi, R. (1993). Anspruchsniveau von Lernzielen und Prüfungen im kognitiven Bereich. Studien und Berichte des Institutes für Wirtschaftspädagogik (IWP), H. 10. St. Gallen: IWP.

Procedural knowledge contains all cognitive action routines that allow us to perform many everyday tasks routinely, i.e. without demanding a high level of attention.

"2.3 Sensorimotor skills: Dexterity in handling and using materials, methods, tools and instruments."

Sensorimotor knowledge guides automated motor activities, which are adjusted by sensory feedback to the environment.

3. *Competences*: In contrast to the EQF, where the term "competence" is used, the NQF VPET refers to "competences" in the plural. The "competences" category accommodates both professional and personal competences (social, personal and leadership competences).

The term 'competences' is used in the same way as in the EQF:

"3.1 Competences relate to the ongoing and routine exercise of knowledge and skills in the context of work. Frequent repetition makes sequences of action into a habit. An individual is able to rely on past experience to solve problems. This prevents errors and ensures that things are done in the same way. The transfer of what has been learned to new, different situations plays an important part in this. It means that things which happen at work become routine for an individual, and allows him or her to further develop competences both in his or her specific field and beyond it. In the national qualification framework, competences are divided into professional and personal competences."

Situational knowledge plays a part in the exercise of a profession, as experience and what is remembered have a marked impact on routine work. This means that situational knowledge is also essential for professional expertise. Lothar Reetz⁸⁵ (1999) combined various concepts, such as the concept of key qualifications (Orth, Mertens), competences (Roth, Reetz, Dilger/Sloane, Baethge/Achtenhagen, Erpenbeck) and action orientation, producing a theory of professional competence. The definition of competences is based on his concept. One of the foundations of the terms 'social competence' (social skills) and 'self-competence' (personal autonomy) is the concept of 'key qualification' devised by Helen Orth (1999).

"3.2 Professional competences: Include the use of theories and concepts that are needed to perform a specific activity, but also implicit knowledge acquired through the application of knowledge and skills in the form of practical experience."

Professional competences include tangible professional practical experience acquired through the repeated employment of skills in the context of work. An individual is able to rely on past experience to solve problems. This prevents errors and ensures that things are done in the same way (principle of trial and error). It means that things become technically routine for an individual, and allows him or her to further develop competences both in his or her specific field and beyond it.

"3.3 Personal competences: Consist of social skills, autonomy and leadership competences, and determine behaviour in and reaction to a given situation. These competences include the ability to plan, carry out and check work-related activities independently, and the competence to reflect on and improve the individual's own skills."

Personal competences describe various forms of behaviour in the context of work. Social skills ('social competence') include knowledge and abilities that allow an individual to act appropriately for the situation when dealing with other people. It denotes the demands made on an individual's ability to cooperate and deal with conflict in a specific profession. Autonomy ('self-competence') denotes the skills and attitudes that reflect a person's view of the world, and of work in particular. This competence includes willingness to work, endurance, reliability, commitment and personal identity, attitudes and values. Leadership competences describe the ability of people in senior positions in an organisation to carry out leadership tasks successfully. Leadership tasks are a sub-set of management tasks such as planning, organisation, leadership and control of employees.

⁸⁵ Lothar Reetz (1999): Concept of professional competences.

4.2.2.2 Complexity of the descriptors

The complexity of the descriptors in the NQF VPET increases in a linear fashion from level 1 to level 8. This rise can be demonstrated by taking the "professional competences" sub-category of the "competences" category as an example:

Competences: Professional competences	
Level 1	Possess initial practical experience within a business or similar setting from which further knowledge and skills may be developed. Work can be carried out according to instructions .
Level 2	Drawing from initial work experience , able to use the requisite knowledge and skills at this level to carry out organised and planned work within a business . Work can be carried out according to instructions
Level 3	Drawing from work experience , able to use the requisite knowledge and skills at this level to ensure the successful application of working techniques and basic working processes within a business . Work can partly be carried out on one's own .
Level 4	Drawing from work experience , able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes within a business . Work can be performed on one's own . Able to supervise routine tasks of other persons.
Level 5	Drawing from work experience , able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes within a business . Work can be performed in the form of independent and strategic activities . Able to supervise and guide routine tasks of other persons .
Level 6	Drawing from versatile work experience , able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes and produce strategic results within a business . Work can be performed in the form of independent and strategic activities as well as in the form of consulting. Able to handle complex technical activities and projects and take important decisions .
Level 7	Drawing from versatile work experience , able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes and produce strategic results within a business . Work can be performed in the form of managerial and consulting activities as part of a complex working process and contribute to the further development of the business or improvement of working processes . Able to plan and adopt new strategic approaches to complex, unforeseen activities and projects .
Level 8	Drawing from extensive work experience , able to use the requisite knowledge and skills at this level in a targeted fashion to ensure smooth operation of one's own working processes and produce strategic results within a business . Work can be performed in the form of managerial and consulting activities as part of one or more complex working processes and contribute to the further development of the business or improvement of working processes.

Practical experience

Level 1	initial practical experience
Level 2	initial work experience
Level 3	work experience
Level 4	
Level 5	
Level 6	versatile work experience
Level 7	
Level 8	extensive work experience

Accumulation of practical experience starts with the first opportunities for practical experience (in the form of work placements in the 10th year of school, pre-professional courses after completing compulsory education, pre-apprenticeship etc.), moving on to initial work experience and professional practical experience gained by VET lasting either one to two years or three to four years (Federal Vocational Certificate, Federal Certificate of Proficiency). Versatile work experience can be gained via a more advanced qualification, for example as part of tertiary level PET. The highest form is designated "extensive work experience".

Integration into the process of work

Level 1	
Level 2	organised and planned work within a business.
Level 3	successful application of working techniques and basic working processes within a business.
Level 4	smooth operation of one's own working processes within a business.
Level 5	
Level 6	smooth operation of one's own working processes and produce strategic results within a business
Level 7	
Level 8	smooth operation of one's own working processes and produce strategic results within a business

The growing depth of integration into the process of work is reflected by expansion of substantive responsibilities. A person at level 1 cannot yet be described as integrated into the process of work, and so this nomenclature does not start until level 2. Involvement in organisational processes takes various forms, starting with planned work, moving on to ensuring the smooth running of work processes and culminating in strategic and targeted activity.

Position

Level 1	according to instructions.
Level 2	
Level 3	Work can partly be carried out on one’s own.
Level 4	Work can be performed on one’s own
Level 5	independent and strategic activities. Able to supervise and guide routine tasks of other persons.
Level 6	independent and strategic activities as well as in the form of consulting. Able to handle complex technical activities and projects and take important decisions.
Level 7	managerial and consulting activities as part of a complex working process and contribute to the further development of the business or improvement of working processes. Able to plan and adopt new strategic approaches to complex, unforeseen activities and projects.
Level 8	managerial and consulting activities as part of one or more complex working processes

The position held by an employee in his or her work also depends on the individual's professional competences. At low levels work is done according to instructions, then on one’s own in some cases (levels 3 and 4), then independently and with the addition of strategic input (from level 5 onwards). Advisory activities come into the picture at level 6. Individuals at level 7 are able to provide advice and to perform a leadership function; these elements are an integral part of their role. In this function the individual makes a significant contribution to the progress of the organisation and to improving work processes.

4.2.3 A comparison between the NQF VPET and the EQF

Referencing at descriptor level shows where the EQF and the NQF VPET correspond and where they differ. The preceding chapter showed the steady rise in complexity of the NQF VPET. This synchronicity of graduation with the EQF is examined and evaluated below.

The NQF VPET uses only the term "or" rather than the phrase "and/or". In that case, "or" can be taken to mean "either/or" as well as "and".

It is assumed that a person who has reached level 1 in the NQF VPET has completed compulsory schooling and so has basic competences⁸⁶ (reading, writing, arithmetic). The descriptors used in the NQF VPET are more detailed than those in the EQF and contain specific descriptions for VPET, but equivalence is assured. This extension of requirements is logical because the NQF VPET is a qualifications framework which only deals with vocational and professional qualifications.

In the NQF VPET, the ‘understanding’ domain indicates the depth of intellectual understanding of correlations required at this level. It is assumed that individuals at level 1 understand basic general correlations.

The term "general education" is used as a synonym for general knowledge, as this term is more common in Switzerland.

As the NQF VPET uses the same categories as the EQF, they can be compared. Unlike the EQF, the NQF VPET has sub-categories. The *Knowledge* category is divided into knowledge and understanding, the *Skills* category into procedural and sensorimotor skills, and the *competences* category into professional and personal competences. These provide structure and are helpful in making comparisons.

In the NQF VPET, the *skills* category is subdivided into *procedural and sensorimotor skills* instead of the distinction between *cognitive and practical skills* made in the EQF. This distinction is due to the fact

⁸⁶ The basic competences are defined according to the national educational objectives of the EDK. See URL:<http://www.edk.ch/dyn/12930.php> (as of: 3.12.2014).

that for the NQF VPET a different knowledge model was drawn upon (ACT Model (1983) and ACT-R Model by John Anderson & C Lebiere (1998) as well as the publication entitled "Wirksames Wissen aufbauen. Ein integrierendes Modell des Lernens" (2005) by Hansruedi Kaiser), where the "Model of four knowledge systems" was used as its inspiration). In the NQF VPET, the *skills* category in fact only includes executive capabilities, which are controlled using *procedural and sensorimotor knowledge*. *Procedural* knowledge helps people to carry out tasks. It includes all the cognitive action routines that enable them to perform everyday tasks routinely, i.e. without demanding a high level of attention. *Procedural knowledge* controls people's ability to solve problems when carrying out practical activities, whereas *sensorimotor knowledge* controls automated motor activities that are adapted to the environment via sensory feedback.

The comparison between the EQF and the NQF VPET is conducted according to level. It starts at level 1 and ends at level 8.

Table 2: A comparison between the level descriptors used in the NQF VPET and those used in the EQF

L E V E L	Knowledge	Skills	Competences
1	<p>Knowledge: Possess basic knowledge specific to the working or learning context and a basic general education.</p> <p>Understanding: Understand basic, general correlations within the working or learning context and able to explain these in one's own words.</p>	<p>Procedural skills: Able to recognise basic standardised tasks in a specific field to a certain extent.</p> <p>Sensorimotor skills: Able to use specific technical aids and instruments to solve basic standardised tasks in a specific field based on specific operational guidelines.</p>	<p>Professional competences: Possess initial practical experience within a business or similar setting from which further knowledge and skills may be developed. Work can be carried out according to instructions.</p> <p>Personal competences: Autonomy: able to apply the requisite knowledge and skills under instruction or operational guidelines in clearly defined assigned tasks within a business or similar setting and adhering to mandatory guidelines. Social competences: able to adapt one's own behaviour to the situation at hand and interact appropriately with others, work within a team and convey information both verbally and in writing.</p>
EQF	Basic general knowledge	Basic skills required to carry out simple tasks	Work or study under direct supervision in a structured context
Assessment	<p>The term "basic" appears in level 1 of both the EQF and the NQF VPET and is an important term in these descriptors.</p> <p>The NQF VPET requires a person at level 1 to have basic specific knowledge of the field of work or study in addition to general education.</p>	<p>As with knowledge, the term "basic" appears both in the EQF and the NQF VPET. The NQF VPET uses the term "standardised" rather than the phrase "simple tasks". It also specifies how tools and instruments can be used once this level has been reached.</p>	<p>Work "under direction/under direct supervision/instruction" is referred to in level 1 in both qualifications frameworks. In the EQF it is assumed that this work or study takes place in a "structured context" and under supervision. In the NQF VPET this is described as being able to "adhere to mandatory guidelines" and apply competences in "clearly defined assigned tasks". Certain forms of courtesy and behaviour are also described at this level.</p> <p>The NQF VPET requires initial practice experience within a business or similar setting.</p>
<i>The various formulations in the EQF and the NQF VPET have the same degree of graduation.</i>			

	Knowledge	Skills	Competences
L E V E L 2	<p>Knowledge: Possess basic knowledge specific to the working or learning context and a basic general education.</p> <p>Understanding: Understand the general correlations within the specific working or learning context or branch and able to explain these in one's own words.</p>	<p>Procedural skills: Able to recognise and handle standardised tasks in a specific field to a certain extent based on operational guidelines.</p> <p>Sensorimotor skills: Able to use specific technical aids and instruments to solve standardised tasks in very familiar situations in a specific field based on operational guidelines.</p>	<p>Professional competences: Drawing from initial work experience, able to use the requisite knowledge and skills at this level to carry out organised and planned work within a business. Work can be carried out according to instructions.</p> <p>Personal competences: Autonomy: able to apply the requisite knowledge and skills to assigned tasks in a specific field partly on one's own. Able to assist in the planning of simple tasks within a specific field and carry out these tasks in accordance with mandatory guidelines.</p> <p>Social competences: able to adapt one's behaviour to the situation at hand and interact appropriately with others, work within a team and convey simple information from the specific field both verbally and in writing in a suitable form.</p>
EQF	<p>Basic factual knowledge of a field of work or study</p>	<p>Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools</p>	<p>Work or study under supervision with some autonomy</p>
Assessment	<p>The key element in the EQF is the acquisition of basic factual knowledge. The NQF VPET splits factual knowledge into specialist knowledge and general education.</p> <p>It states that general correlations must be understood and that the individual will as a result be able to explain these correlations himself or herself.</p>	<p>The term "standardised" is used in the context of skills in the NQF VPET instead of "basic". This refers to set work procedures which cannot be varied. It is therefore also important for the person to be able to act according to instructions given in the organisation.</p> <p>In the EQF, this is described as solving routine problems using simple rules and tools.</p>	<p>The change compared to the previous level in the EQF is that the individual is expected to have "some autonomy". At this level, the NQF VPET also expects the individual to be able to use his or her competences "on one's own" and to "assist in the planning of simple tasks".</p> <p>Furthermore, in addition to the courtesy and behaviour standards already required, it is emphasised that this should be done in an appropriate manner and that the individual should do this "according to mandatory guidelines".</p> <p>The NQF VPET requires initial work practical experience at this level.</p>
<p><i>These different formulations have the same degree of graduation.</i></p>			

L E V E L 3	Knowledge	Skills	Competences
	<p>Knowledge: Possess knowledge specific to the working or learning context and general education.</p> <p>Understanding: Understand the correlations within the specific working or learning context or branch and able to explain these in one's own words.</p>	<p>Procedural skills: Able to recognise tasks in a specific field. Able to carry out tasks based on operational guidelines and known problem-solving strategies.</p> <p>Sensorimotor skills: Able to use specific technical aids and instruments to solve standardised tasks in familiar situations in a specific field based on operational guidelines.</p>	<p>Professional competences: Drawing from work experience, able to use the requisite knowledge and skills at this level to ensure the successful application of working techniques and basic working processes within a business. Work can partly be carried out on one's own.</p> <p>Personal competences: Autonomy: able to apply the requisite knowledge and skills in a specific field partly on one's own. Within the specific field, able to share responsibility for simple tasks and adhere to mandatory guidelines. Social competences: able to adapt one's behaviour to the situation at hand and the needs of others, work within a team and convey information from the specific field both verbally and in writing in a suitable form.</p>
EQF	<p>Knowledge of facts, principles, processes and general concepts in a field of work or study</p>	<p>A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information</p>	<p>Take responsibility for completion of tasks in work or study in solving problems</p> <p>Adapt own behaviour to circumstances</p>
Assessment	<p>Individuals at this level are no longer required only to have basic specific knowledge and general education, but a broader range of knowledge and education. In the EQF, this is reflected by the reference to "knowledge of facts, principles, processes and general concepts". The range of specific and general knowledge expected has broadened, as has the level of detail of the knowledge required.</p> <p>The depth of understanding is not restricted to the concrete context alone, but broadened by an understanding of topics related to the sector in which the individual works.</p>	<p>At this level, the NQF VPET requires individuals to perform not only standardised tasks but all tasks. This assumes that the individual is able to apply known problem-solving strategies.</p> <p>The same idea is expressed in different terms in the EQF.</p>	<p>The change compared to the previous level in the EQF is that the individual is expected to accept "responsibility for completion of tasks". At this level, the NQF VPET also expects the individual to be able to "help organise simple tasks".</p> <p>Furthermore, in addition to the courtesy and behaviour standards already required, it is emphasised that this should be done in an appropriate manner and that behaviour should "be adapted to the needs of other people".</p> <p>The NQF VPET requires professional practical experience at this level.</p>
<p><i>The various formulations in the EQF and the NQF VPET have the same degree of graduation.</i></p>			

L	Knowledge	Skills	Competences
<p>E</p> <p>V</p> <p>E</p> <p>L</p> <p>4</p>	<p>Knowledge: Possess more in-depth knowledge specific to the working or learning context and general education. Also able to acquire on one's own specific technical knowledge.</p> <p>Understanding: Understand the correlations within the specific working or learning context or branch as well as from thematically related fields and able to explain these in one's own words.</p>	<p>Procedural skills: Able to recognise tasks in a specific field. Able to carry out tasks based on operational guidelines or through the use of known problem-solving strategies.</p> <p>Sensorimotor skills: Able to use specific technical aids and instruments to solve particularly difficult tasks in familiar situations in a specific field based on operational guidelines or with the help of known methods or tools. Able to use basic means of communication.</p>	<p>Professional competences: Drawing from work experience, able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes within a business. Work can be performed on one's own. Able to supervise routine tasks of other persons.</p> <p>Personal competences: Autonomy: able to apply the requisite knowledge and skills in a specific field mostly on one's own. Within the specific field, able to take responsibility for clearly defined tasks and handle changing requirements. Social competences: able to adapt one's behaviour to the situation at hand and the needs of others, work within a team and convey information from the specific field both verbally and in writing in a suitable form. Leadership competences: able to show other workers how to perform a specific set of tasks within a given working context.</p>
EQF	Factual and theoretical knowledge in broad contexts within a field of work or study	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change. Supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
Assessment	<p>The idea expressed by "factual and theoretical knowledge in broad contexts" in the EQF is referred to in the NQF VPET as more in-depth specific knowledge and general education. The NQF VPET also requires the individual to be able to expand his or her existing range of knowledge by self-directed study in the field in question (for example, by preparing independently for a tertiary level VPET qualification).</p> <p>The required depth of understanding is enlarged to encompass related fields.</p>	<p>Individuals at this level in the NQF VPET are required to recognise all tasks and work out solutions. This assumes that the individual is able to develop new problem-solving strategies.</p> <p>The same idea is expressed in different terms in the EQF.</p> <p>The ability to use basic communication tools is explicitly mentioned in level 4 of the NQF VPET. This means speech, writing and technical communication tools such as the computer or telephone.</p>	<p>The sub-category of leadership competences is a new addition to this level of the NQF VPET.</p> <p>The change compared to the previous level in the EQF is that the individual is expected to "supervise the routine work of others". Individuals at this level in the NQF VPET are also expected to be able to supervise the "routine tasks of others" and "show other workers how to perform a specific set of tasks". Work is done "on one's own" and "responsibility for tasks" is accepted even if the requirements change.</p> <p>Individuals at this level of the NQF VPET are required to have professional practical experience so as to ensure that work processes are carried out without any difficulty</p>
<p><i>The various formulations in the EQF and the NQF VPET have the same degree of graduation.</i></p>			

	Knowledge	Skills	Competences
L E V E L 5	<p>Knowledge: Possess extensive specific knowledge of important areas of work and a more in-depth general education. Also able to acquire on one's own specific technical knowledge.</p> <p>Understanding: Understand the correlations within or outside the specific working context or branch and able to explain these in one's own words.</p>	<p>Procedural skills: Able to recognise and analyse tasks in a specific field. Able to carry out tasks based on operational guidelines or through the use of known problem-solving strategies.</p> <p>Sensorimotor skills: Able to suitably prepare and use specific technical aids and instruments to solve fairly difficult tasks in various situations in a specific field based on operational guidelines or with the help of known methods or tools. Able to use basic means of communication properly and present information from the specific field.</p>	<p>Professional competences: Drawing from work experience, able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes within a business. Work can be performed in the form of independent and strategic activities. Able to supervise and guide routine tasks of other persons.</p> <p>Personal competences: Autonomy: able to apply the requisite knowledge and skills in a specific field on one's own. Within the specific field, able to take responsibility for tasks and handle changing requirements. Social competences: able to reflect on one's own role and adapt one's behaviour to the situation at hand and the needs of others, work within a team and convey information from the specific field both verbally and in writing in a precise and suitable form. Leadership competences: able to manage workers in several specific fields of activity within a given working context.</p>
EQF	<p>Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge</p>	<p>A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems</p>	<p>Exercise management and supervision in contexts of work or study activities where there is unpredictable change Review and develop performance of self and others</p>
Assessment	<p>Knowledge and understanding are "comprehensive" at this level. The individual develops these independently and undertakes self-directed further training. "Awareness of the boundaries of knowledge", explicitly referred to in the EQF, is implicitly present in the NQF VPET. The fact that the individual recognises the boundaries which he or she encounters enables him or her to recognise the boundaries of knowledge as well and to engage in focused further training.</p>	<p>Individuals at this level in the NQF VPET are required to recognise and analyse all tasks and work out solutions to them. This assumes that the individual is able to develop new problem-solving strategies. The same idea is expressed in different terms in the EQF. The ability to use basic communication tools and the presentation of information are explicitly mentioned in the NQF VPET.</p>	<p>The change compared to the previous level in the EQF is that the individual is expected to have the competence to "manage and supervise" and "review and develop" his or her own as well as other people's performance. Individuals at this level in the NQF VPET are also expected to be able to "supervise and guide routine tasks of other persons" and to "manage workers in several specific fields of activity within a given working context". Work is expected to be carried out independently at this level of the NQF VPET, and a strategic contribution is also required. Individuals at this level of the NQF VPET are also explicitly required to be able to reflect on their role.</p>
<p><i>The various formulations in the EQF and the NQF VPET have the same degree of graduation.</i></p>			

	Knowledge	Skills	Competences
L E V E L 6	<p>Knowledge: Possess advanced specific knowledge in all important areas of work and more in-depth general education. Also able to acquire on one's own specific technical and interdisciplinary knowledge.</p> <p>Understanding: Understand the correlations within or outside the specific working context or branch and able to see linkages with thematically related fields</p>	<p>Procedural skills: Able to recognise, analyse and assess complex tasks in a specific field. Able to carry out tasks based on operational guidelines or through the use of known problem-solving strategies.</p> <p>Sensorimotor skills: Able to suitably prepare and use specific technical aids and instruments to solve difficult tasks in various situations in specific fields based on suitable and known methods or tools. Able to use basic means of communication properly and present information from the specific field.</p>	<p>Professional competences: Drawing from versatile work experience, able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes and produce strategic results within a business. Work can be performed in the form of independent and strategic activities as well as in the form of consulting. Able to handle complex technical activities and projects and take important decisions.</p> <p>Personal competences: Autonomy: able to apply the requisite knowledge and skills in a specific field and thematically related fields on one's own. Within the entire specific field, able to take responsibility for tasks and processes and handle changing requirements. Social competences: able to reflect on one's own role and the role of others and conscientiously maintain these roles in dealings with others, work within a team and convey information from the specific field both verbally and in writing in a precise, understandable and suitable form. Leadership competences: able to manage workers in several fields of activity within a given working context, partly assume responsibility for these workers and support them.</p>
EQF	<p>Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles</p>	<p>Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study</p>	<p>Manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts</p> <p>Take responsibility for managing professional development of individuals and groups</p>
Assessment	<p>At this level, both the EQF and NQF VPET refer to "advanced" knowledge.</p> <p>The NQF VPET covers only vocational training, which is why the emphasis here is on vocational knowledge. However, it can be assumed that the competences required are compatible with the EQF and so can be indirectly linked with the frameworks used in the university sector.</p>	<p>Individuals at this level in the NQF VPET are also required to recognise, analyse and evaluate complex tasks and work out solutions to them. This assumes that the individual is able to develop new problem-solving strategies. The same idea is expressed in different terms in the EQF.</p> <p>The ability to use communication tools and the presentation of information are explicitly mentioned in the NQF VPET.</p>	<p>At this level of the EQF, the emphasis is primarily on necessary leadership competences in addition to extensive professional practical experience. In the EQF, this is expressed as "taking responsibility for managing professional development of individuals and groups", while in the NQF VPET it is described as the ability to "manage workers [...], partly assume responsibility [...] and support them".</p> <p>The EQF also describes the responsibility which an individual at this level must be able to assume. In the EQF, this is described as "managing complex technical or professional activities or projects" and "taking responsibility for decision-making", while in the NQF VPET it is described as taking "responsibility for task and processes".</p> <p>Work is expected to be carried out independently at this level of the NQF VPET, and a strategic contribution and the competence to provide advice are also required.</p>
<p><i>The various formulations in the EQF and the NQF VPET have the same degree of graduation.</i></p>			

	Knowledge	Skills	Competences
L E V E L 7	<p>Knowledge: Possess advanced, solid and detailed specific knowledge of all important areas of work and extensive general education. Also able to acquire on one's own specific technical and interdisciplinary knowledge.</p> <p>Understanding: Understand the complex correlations within or outside the specific working context or the branch and able to see interdisciplinary linkages with thematically related or unrelated fields.</p>	<p>Procedural skills: Able to recognise, analyse and assess complex tasks in a given interdisciplinary field. Able to carry out tasks based on operational guidelines or through the use of suitable, innovative problem-solving strategies.</p> <p>Sensorimotor skills: Able to suitably prepare and use specific technical aids and instruments to solve very difficult and challenging tasks in every situation from thematically related fields based on suitable and at times entirely novel methods or tools. Able to make full use of the possibilities of various means of communication and present complex information from the specific field.</p>	<p>Professional competences: Drawing from versatile work experience, able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes and produce strategic results within a business. Work can be performed in the form of managerial and consulting activities as part of a complex working process and contribute to the further development of the business or improvement of working processes. Able to plan and adopt new strategic approaches to complex, unforeseen activities and projects.</p> <p>Personal competences: Autonomy: able to apply the requisite knowledge and skills in a challenging field and thematically related fields independently and conscientiously. Able to take responsibility for increasingly complex tasks and processes and handle changing requirements. Social competences: able to reflect on one's own role and the role of others, define these roles and conscientiously maintain them in dealings with others. Able to work within a team and to convey complex information from the specific field both verbally and in writing in a precise, understandable and suitable form, having the desired impact on and being tailored to the intended recipients. Leadership competences: able to manage workers in a field of activity within a given working context, completely assume responsibility for these workers and support them in a targeted fashion.</p>
EQF	<p>Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research. Critical awareness of knowledge issues in a field and at the interface between different fields</p>	<p>Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields</p>	<p>Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches Take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams</p>
Assessment	<p>The knowledge described in the EQF as "highly specialised knowledge" is referred to in the NQF VPET as "advanced, solid and detailed specific knowledge" and "extensive general education".</p>	<p>Individuals at this level in the NQF VPET are also required to recognise, analyse and evaluate interdisciplinary complex tasks and work out solutions to them. This assumes that the individual is able to develop and apply new, innovative problem-solving strategies.</p>	<p>The leadership competences required at this level of the EQF are described as "taking responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams", while the NQF VPET defines them as the ability "to lead employees [...], take full responsibility for them and motivate them in a targeted fashion". The EQF also describes the responsibility which an individual at this level must be able to assume. This is described in the EQF as "managing and transforming work</p>

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	<p>The modern world of work requires individuals at this level to constantly refresh their specialist knowledge and to learn about new technologies and innovations.</p> <p>The reference in the EQF to "critical awareness of knowledge issues" seems to be formulated in relation to an academic qualification rather than a vocational one.</p>	<p>Level 7 skills are described in a very academic manner in the EQF. Research problem-solving skills are not the focus for VPET; wide-ranging and specific knowledge of procedures within a profession are more important.</p> <p>The ability to make full use of the opportunities offered by various communication tools and the presentation of complex information are explicitly mentioned in the NQF VPET.</p>	<p>or study contexts that are complex, unpredictable and require new strategic approaches" and in the NQF VPET as "taking responsibility for increasingly complex tasks and processes" and directing and shaping "new strategic approaches to complex, unforeseen activities and projects".</p> <p>At this level of the NQF VPET, leadership competences are required in addition to advisory activities. The activity takes place in a challenging work context.</p>
<p><i>The various formulations in the EQF and the NQF VPET have the same degree of graduation in some respects.</i></p>			

	Knowledge	Skills	Competences
<p>L E V E L 8</p>	<p>Knowledge: Possess <u>advanced, solid, specialised, detailed and systematic specific knowledge</u> in all areas of work and <u>extensive general education</u>. Also able to <u>acquire on one's own specific technical and interdisciplinary knowledge</u>.</p> <p>Understanding: <u>Understand the complex correlations within or outside the specific working context or branch</u> and able to see <u>interdisciplinary linkages with complex thematically related or unrelated fields</u>.</p>	<p>Procedural skills: Able to fully <u>recognise, analyse and assess complex and highly challenging tasks in a given interdisciplinary specific field</u>. Able to carry out tasks based on operational guidelines or through <u>suitable, innovative problem-solving strategies</u> and <u>make relevant prognoses or recommendations</u>.</p> <p>Sensorimotor skills: Able to suitably prepare and use specific technical aids and instruments to <u>solve novel, very difficult and highly challenging tasks</u> in every situation from thematically related fields based on suitable and <u>entirely novel or innovative methods or tools</u>. Able to make full use of the <u>possibilities of various means of communication and present complex and differentiated information</u> from the specific field.</p>	<p>Professional competences: Drawing from <u>extensive work experience</u>, able to use the requisite knowledge and skills at this level in a targeted fashion to ensure smooth operation of one's own working processes and produce strategic results within a business. Work can be performed in the form of managerial and consulting activities as part of one or more complex working processes and contribute to the <u>further development of the business or improvement of working processes</u>.</p> <p>Personal competence: <u>Autonomy:</u> able to fully and conscientiously apply the requisite knowledge and skills in a <u>specific highly challenging field</u> and thematically related fields on one's own. Able to <u>take responsibility for complex tasks and processes</u> and handle changing requirements within the entire highly challenging field. <u>Social competences:</u> able to reflect on and shape one's own role and the role of others, behave responsibly in dealings with others, work in a team and <u>strategically apply one's analytical skills within the working context</u>. Able to convey complex and differentiated information from the specific field both verbally and in writing in a precise, understandable, suitable and professional form, having the desired impact on and being tailored to the intended recipients. <u>Leadership competences:</u> able to <u>manage workers</u> in a highly challenging field of activity within a given working context, <u>completely assume responsibility for these workers and support them in a targeted fashion to take personal initiative</u>.</p>
<p>EQF</p>	<p><u>Knowledge at the most advanced frontier</u> of a field of work or study and at the interface between fields</p>	<p><u>The most advanced and specialised skills and techniques</u>, including <u>synthesis and evaluation</u>, required to solve critical problems in research and/or innovation and to <u>extend and redefine existing knowledge or professional practice</u></p>	<p><u>Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes</u> at the forefront of work or study contexts including <u>research</u></p>

<p>Assessment</p>	<p>What the EQF refers to as "knowledge at the most advanced frontier" is defined in the NQF VPET as "advanced, solid, specialised, detailed and systematic knowledge" and "extensive general education".</p>	<p>Building on the previous level, the competence to produce forecasts and recommendations is also required here. This corresponds to the "synthesis and evaluation" ability required at this level in the EQF.</p> <p>Level 8 skills are described in a very academic manner in the EQF. Research problem-solving skills are not the focus for VPET; wide-ranging and specific knowledge of procedures within a profession are more important.</p> <p>The ability to make full use of the opportunities offered by various communication tools and the presentation of complex information are explicitly mentioned in the NQF VPET.</p>	<p>In conceptual terms, the NQF VPET builds on the previous level and so does not introduce any new concepts at this stage. The EQF does use some new key words to describe level 8 competences. Most of these terms can apply to VPET.</p> <p>The ideas referred to in the EQF by "authority", "autonomy" and "integrity" are expressed in the NQF VPET by "responsibility", "ability to reflect", "leadership" and "support".</p> <p>The terms "research" and "ability to innovate" are more closely related to academia, although the field of applied research certainly has some links to VPET.</p> <p>The NQF VPET emphasises that activities take place in a highly challenging work context.</p>
<p><i>The various formulations in the EQF and the NQF VPET have the same degree of graduation in some respects.</i></p>			

4.3 Criterion 3

The national qualifications framework or system and its qualifications are based on the principle and objective of learning outcomes and linked to arrangements for validation of non-formal and informal learning and, where these exist, to credit systems.

In Swiss VPET, learning outcomes are described in the form of professional competences. These comprise all the necessary competences which graduates must have acquired by the end of the learning process in order to work in their chosen profession. They include professional competences as well as the associated personal and social skills. Depending on the model, professional competences are described as technical competences, methodical competences, personal autonomy and social skills, or knowledge, abilities and attitudes. Various validated methods are used to define competences.

Individual professional competences are described in concrete terms with learning objectives at each study location. They are roughly equivalent to the "education standards" used in other countries that have a dual system, such as Germany, Luxembourg and Austria.

Given the focus on competence that is a feature of the Swiss VPET system, the basic legal documents which relate to educational provision (ordinances on VET, ordinances governing federal examinations and framework curricula for courses at Colleges of Higher Education) are oriented towards professional competences. The ordinances on VET form the basis of the curricula and the qualification procedure as well as the final examinations. The examination ordinances for federal examinations are non-curricular and deal only with examinations. The SERI assesses focus on competences when approving or recognising basic reference documents.⁸⁷

In most cases, professional competences are described in the aforementioned basic reference documents⁸⁸ relating to vocational qualifications, which form the basis for assignment to the NQF VPET. Some of the descriptions of competences in the basic reference documents use different terminology from the NQF VPET. To simplify the assignment for awarding bodies that issue qualifications, a translation device ("Grid of professional competences based on NQF VPET⁸⁹", Annex 6.5) describes the levels of the NQF VPET in the terminology used in the basic reference documents.

If there are no competence-oriented descriptions for a VPET qualification, the corresponding documents must undergo a revision before an assignment to the NQF VPET can be done. This ensures that competence-orientation is taken into consideration during the assignment process.

If the basic VPET documents do not give an overview of professional competence, the awarding body can either generate a separate table with this overview or submit the qualification for revision.

4.3.1 Vocational education and training VET

Each education ordinance dealing with VET defines the statutory elements of VET. The **qualification profile** defines the level required by the profession and includes the professional competences which a qualified practitioner of the profession must have in order to exercise the profession competently at the defined level. The qualification profile is the basis for devising the **training plan**. As an instrument to promote quality in VET, the training plan describes the competences which learners must acquire by the time they graduate. It forms the foundation for vocational teaching as it provides training aimed at mastering situations typical for the profession. The competences are to be regarded as minimum standards for training, and define the maximum scope of topics on which learners can be examined in the

⁸⁷ Nowadays, almost all ordinances dealing with VET are drafted with a focus on professional competences.

⁸⁸ The reference here is to the education and training ordinance and education and training plan for VET, the examination ordinance and guidelines for federal examinations and framework curricula for courses at Colleges of Higher Education. Nowadays, almost all documents dealing with PET are drafted with a focus on competence. This applies to around two-thirds of examination ordinances in PET. The others are being revised at the moment or scheduled for revision in the future.

⁸⁹ Grid of professional competences based on NQF VPET: <http://www.sbf.admin.ch/ngr/02439/index.html?lang=en>, 06.01.2015.

qualification process. The training plan specifies the competences that are to be acquired. These are presented as "competence areas", "competences" and "performance objectives" (technical competences, methodological competences, personal autonomy and social skills) or are illustrated by performance objectives with the related resources (knowledge, skills, attitudes). (Annex 6.6)

The focus on competences is central to the production of the training plan. This can be done on the basis of two different models: the competence oriented model and the competence-and-resources model. These two models are described in more detail in Annex 6.6.

At present, all vocational education and training ordinances are formulated using a learning outcomes approach. All VET ordinances also specify that a partnership-based "Commission for Development and Quality" must review occupations every five years to ensure they are up to date and of a high quality. This means that these ordinances are reviewed every five years.

4.3.2 Professional education and training PET

Each examination ordinance dealing with Federal and Advanced Federal Diplomas of Higher Education defines the statutory elements, while the framework curriculum defines the statutory elements in the case of Advanced Federal Diplomas of Higher Education awarded by Colleges of Higher Education. The competence-focused basic reference documents for tertiary level PET are currently being revised. The aim is to use the same models that are used for VET (Annex 6.6).

The federal government approves the examination regulations devised by professional organisations for federal and advanced Federal Diploma of Higher Education. An examination ordinance regulates, among other things, the conditions for admission to the examination, the qualification procedure and the corresponding legally protected title, and defines the professional competences acquired as a result of passing the examination and the occupational profile. The guidelines relating to the examination ordinance contain additional information. Unlike the examination ordinance, these guidelines do not contain any statutory provisions, are issued by awarding bodies and do not require approval by the government. As in the case of VET, the **qualification profile** is the foundation for the production of the examination ordinance and guidelines. It contains an overview of professional competences⁹⁰, a description of the occupational profile (derived from the professional competences) and performance criteria which can be used to assess and measure the existence of professional competence.⁹¹ The qualification profile is drawn up by the professional organisations in conjunction with qualified practitioners of the profession in question on the basis of an analysis of professional activity.

Framework curricula are the foundation for study programmes at Colleges of Higher Education and for their recognition by the SERI⁹². The rules governing the recognition of programmes and post-diploma programmes are set out in the ordinance on minimum requirements for Colleges of Higher Education⁹³. As part of a recognition procedure, a review is performed to ascertain whether the course meets the requirements of the ordinance and of the framework curriculum in question. The framework curricula are devised by the training providers in conjunction with the relevant sectoral or professional organisations and approved by the SERI. They are based on the occupational profile and the competences acquired⁹⁴. The analysis of the working environment in its context is the basis for the occupational profile. This breaks down into the work processes which determine professional activity in the working environment. The competences are allocated to the work processes and relate to the working environment and

⁹⁰ See definition in chapter 2.3.

⁹¹ The concepts of the qualification profile are currently being revised and have not yet been finalised. They are therefore subject to change. Once the revision process has been completed, examples with the definitive terminology can be provided.

⁹² Current framework curricula can be examined at <http://www.sbf.admin.ch/bvz/>.

⁹³ Ordinance of the Department of Economics, Education and Research of 11 March 2005 on minimum requirements for the recognition of courses and post-diploma programmes at Colleges of Higher Education (MiR-PC); SR 412.101.61.

⁹⁴ See definition in chapter 2.3.

its context, along with the level of achievement that graduates of the programmes must meet. The professional competences required are demonstrated in the qualification process.⁹⁵

At present, around 25% of the statutory elements of tertiary level professional education and training (examination regulations and framework curricula) are geared towards learning outcomes. A further 25% are currently being revised. Revision is not mandatory in the tertiary sector; responsibility here lies with the awarding bodies.

4.3.3 Verifying competences

The VET ordinance stipulates that all the necessary competences must be proven in a qualification procedure. This applies to the final examination as well as all other qualification procedures (validation of prior experience). The qualification procedures are therefore already geared towards learning outcomes.

The qualification process verifies whether learners or candidates have acquired the competences required for successful execution of a profession. The process is focused on the educational objectives of the training plan and takes them into account in a representative manner:

- verbal, written and practical parts are given a balanced weighting for assessment
 - Practical work (individual/set tasks)
 - Examination of knowledge of the profession (written and/or verbal)
- Experience marks awarded by the vocational school are included, as are to some extent the experience marks from courses taken outside the organisation and/or from practice
- The processes chosen are adapted to the target group
- Evidence takes the form of one overall examination, a set of partial examinations or
- other qualification processes recognised by the SERI

The amount of work involved in a qualification process must be reasonable. For this reason, financial factors must also be taken into account when choosing the process.

4.3.4 Recognition of non-formal and informal learning

The Swiss vocational education system has procedures for recognising competences acquired by non-formal and informal learning (chapter 1.3). The aim of this is to take account of the principle that professional competences can be acquired by various educational pathways.

Adults undergoing VET can have existing educational attainments recognised. This allows them to skip some teaching or parts of examinations (VPETO Art 18.3) or complete their VET in a shorter time than usual (VPETA Art 18.1). For example, adults with at least five years' professional experience can immediately undergo a qualification process with a final examination, or apply for validation of educational attainments to have non-formal, informal or previously obtained vocational qualifications credited. These procedures lead to them receiving a formal vocational qualification.

A principle of non-formal and informal education being credited to formal education is also enshrined in the "Federal Act on Continuing Education and Training"⁹⁶. In the field of VPET, continuing education and training includes post-diploma programmes at Colleges of Higher Education, preparatory courses for federal professional and advanced examinations, which often involve modular or intermediate qualifications in the sector in question, and continuous professional development in the form of courses and seminars. The curricula for these types of provision are not regulated by the federal government, and so they are regarded as non-formal training. Within the meaning of the NQF VPET, this provision leads to partial qualifications and cannot be assigned. Only formal qualifications can be assigned in the NQF

⁹⁵ OPET, guidelines on framework curricula for Colleges of Higher Education, 2006.

⁹⁶ Expected to enter into force on 1.1.2017.

VPET. The purpose of modular or intermediate qualifications is to split education and training provision so that learners, who are generally in employment, can complete it more easily.

According to the Swiss assignment method, professional competences would have to be defined and backed up by quality assurance procedures in order for non-formal qualifications to be assigned in the national qualifications framework.

Credits system in VPET

In the case of VPET, the European Credit System for Vocational Education and Training (ECVET) provides a technical framework allowing learning outcomes to be taken into consideration. A Swiss team of experts has been working on a two-year European project to devise an analysis of the ECVET, investigated its possible use in Switzerland and formulated recommendations⁹⁷.

The Swiss ECVET Expert Team has drafted recommendations on five priority areas for Switzerland. These recommendations are the outcome of the findings on the state of ECVET in Europe and Switzerland that have been presented in the analysis. The recommendations also incorporate findings drawn up by members of the Swiss ECVET Expert Team during an ECVET seminar held in Switzerland by two representatives of the European Commission in December 2012. The recommendations are aimed at all Swiss VPET stakeholders. This includes the national and cantonal VPET authorities, representatives of professional and industry associations, vocational schools and industry courses, and also trainers in host companies and the ch Foundation for Federal Cooperation.

The response of the SERI to the recommendations⁹⁸ indicates that the main focus of Switzerland's activities in connection with the ECVET lies on information, exchange of experience and support of voluntary use of the system in the context of mobility activities.

Switzerland has already achieved one of the key ECVET goals, the structuring of courses into units of learning outcomes, and is therefore ECVET-compatible. Further developments in the field of ECVET are currently being monitored and possible implementation is being reviewed.

4.4 Criterion 4

The procedures for inclusion of qualifications in the national qualifications framework or for describing the place of qualifications in the national qualification system are transparent.

The descriptors of the individual levels of the NQF VPET form Annex I of the Ordinance on the NQF VPET and are therefore enshrined in law and available for public inspection.

The consensus-based process of assigning qualifications described in chapter 3.3.2 is set out in detail in the guidelines provided by the awarding bodies (Annex 6.4). The guidelines are publicly accessible on the SERI website.

Federal Institute for Vocational Education and Training

The consistency check carried out by the Federal Institute for Vocational Education and Training (SFIVET) as an external competence centre ensures the equal treatment of all vocational training qualifications, their correct assignment, and the consistency of these assignments in the overall VPET system.

The SFIVET conducts its check according to the methodology of the guidelines. It ascertains whether the competences match the descriptions in the basic reference documents and whether their assignment to a level in the NQF VPET is plausible. The first phase of the consistency check follows the same

⁹⁷ European credit system in vocational education and training (ECVET). A report on developments already accomplished in European vocational education and training, February 2014. Can be ordered from ecvet@stiftung.ch

⁹⁸ SERI, 2015.

route as the self-assignment procedure undertaken by the awarding bodies: individual competences listed in the "overview of competences" are allocated by an inspector to an NQF level as described in the guidelines, and the overall level of the qualification is calculated. If the result of the assignment by the SFIVET matches that contained in the NQF level proposal by the awarding body, this concludes the consistency check.

If the result of this first consistency check does not match the requested level, a more detailed consistency check is conducted: the inspector consults all the basic reference documents relating to the qualification to ascertain why the awarding body would like to have individual competences assigned at a particular level. If the inspector can agree that the level requested is appropriate after taking this additional information into account, this concludes the consistency check.

If the inspector still believes that the qualification should be assigned at a different level, talks are held with the awarding body to reach a consensus. During these talks the inspector discloses the result of his or her consistency check to those present and explains why he or she has reached a different conclusion. The awarding body has the opportunity to present its arguments verbally, to give further information and to take a position on the explanation given by the competence centre. After the talks, the SERI is notified either that consensus has been reached or that there is still disagreement.

If a consensus has been reached, a written declaration to this effect is drawn up and signed by the signatories to the request.

If no agreement has been reached, the report indicating this sent from the SFIVET to the SERI is accompanied by a detailed description of the failed attempt to reach consensus and the main reasons.

The check is conducted by the NQF competence centre in the SFIVET. This competence centre has a member of staff who examines NQF level proposals. This individual has a working group at his or her disposal which acts as the quality review unit in the internal SFIVET process. This working group consists of three SFIVET employees who have held senior positions for a considerable time and one SFIVET administrator. The employees in senior positions are heads of departments responsible for the production of VPET basic reference documents (education ordinances, examination rules), for professional development and reviews in the craft professions, industry and health sectors. They also represent the various sections of basic and advanced VPET.

The working group does not examine every single assignment, but sporadically selects random NQF level proposals for review. The review is conducted according to the same principles set out above.

SERI

If the SFIVET is unable to reach a consensus, the SERI invites awarding bodies to talks. If this also fails to produce a consensus on the assignment of the qualification, the SERI rejects the NQF level proposal. Following consultation with the FCVPET, the SERI publishes the new assignments twice a year in an official ordinance (list).

Federal Commission for Vocational and Professional Education and Training

The FCVPET is consulted before a definite decision on the assignment of qualifications is reached. To this end, the SERI sends the FCVPET a list of assigned qualifications, including the NQF level, twice a year along with a statistical assessment of the breakdown of the NQF levels of qualifications assigned to date according to qualification type. The FCVPET can express an opinion on the assignment but has no decision-making authority. The SERI notes the opinion of the FCVPET.

4.5 Criterion 5

The national quality assurance system(s) for education and training refer (s) to the national qualifications framework or system and are consistent with the relevant European principles and guidelines (as indicated in annex 3 of the Recommendation⁹⁹).

Quality assurance in the Swiss VPET system

Quality assurance has a high priority in the Swiss VPET system, as in other areas of education. It is conducted at various levels by the federal government, the cantons and professional organisations.

The Federal Act on Vocational and Professional Education and Training (VPETA) and the corresponding Ordinance on Vocational and Professional Education and Training (VPETO) form the legal basis for upholding the quality of the VPET system. Considerable importance is attached to quality assurance at all levels and in all areas of education. The provider of VPET is responsible for upholding quality. The federal government is responsible for encouraging quality, setting up quality standards and monitoring adherence to them¹⁰⁰. Continuing education of VPET professionals is a statutory requirement imposed in order to maintain and enhance quality. The federal government is also responsible for promoting the quality of continuous professional development. The cantons are responsible for monitoring quality at the level of VET. This includes the quality of school education, professional practice, courses taken outside organisations in which individuals work, and other third-party learning locations. The Federal Council guarantees the quality of the qualification process irrespective of levels and areas of education. A "Swiss Commission for Career Development and Quality" is referred to in every VET education ordinance from the SERI for the occupation in question. This commission is composed on the basis of the tripartite partnership agreement and is responsible, in particular, for reviewing the education ordinance and the training plan with regard to economic, technological, ecological and didactic developments on an ongoing basis (and at least once every five years) and for reflecting new organisational aspects in VET.

The education ordinances issued by the SERI contain instruments to promote the quality of VET, such as training plans.

The federal government focuses mainly on its supportive role in the implementation of the VPETA:

- It ensures that the topic of quality is constantly under consideration.
- It ensures that discussions on this topic take place regularly.
- It coordinates implementation where necessary. However, the prime responsibility lies with the members of the tripartite partnership agreement and with each individual engaged in VPET.
- The federal government contributes to the improvement of quality by providing start-up funds in the context of the projects which it supports.

The basic quality standards were set out in the VPETA. At national level, this Act, along with various ordinances,¹⁰¹ regulates the following important elements of quality assurance, among others:

- Monitors VET and the locations where it is provided;
- Monitors PET and its examinations;
- Draws up, issues/approves, enforces and regularly reviews the foundations of education and training;

⁹⁹ [http://eur-lex.europa.eu/legal-content/DE/ALL/?jsessionid=TPKvTqvvdHjLkL3G8cwmcJNy7Vly9kh85CpkcJY1hBv2JTnTdRDQR!-2103262933?uri=CELEX:32008H0506\(01\)](http://eur-lex.europa.eu/legal-content/DE/ALL/?jsessionid=TPKvTqvvdHjLkL3G8cwmcJNy7Vly9kh85CpkcJY1hBv2JTnTdRDQR!-2103262933?uri=CELEX:32008H0506(01)) (consulted on 22.05.2014).

¹⁰⁰ VPETA Art 8.

¹⁰¹ Ordinance on Vocational and Professional Education and Training, Ordinance of the Department of Economics, Education and Research on minimum requirements for the recognition of courses and post-diploma programmes of Colleges of Higher Education (MiR-PC of 11 March 2005; SR 412.101.61), Ordinance on the Federal Vocational Baccalaureate (BMV Vocational Baccalaureate Ordinance (VSLCO) of 24 June 2009; SR 412.103.1), Ordinance of the SERI on minimum requirements for general education in VET (GE Ordinance of 27 April 2006; SR 412.101.241).

- Requirements relating to qualification procedures;
- Cooperation among study locations;
- Education and training of VET professionals.

The cantons and the federal government are responsible for educational and training provision and quality in the areas assigned to them. As part of their supervisory role, the cantons are responsible for monitoring improvement in quality in training companies, organisations offering work placements, courses taken outside the organisations in which individuals are working, vocational schools and Colleges of Higher Education. They ensure that advice is available to learners and to VET professionals, and arrange coordination among the parties involved in VET. The federal government oversees improvements in quality of vocational examinations, advanced examinations and courses for VET professionals. It is also responsible for monitoring the maintenance and improvement of quality in areas subsidised by the federal government. Subsidies include, in particular, flat-rate payments to the cantons, contributions to projects aimed at developing VPET and improving its quality, contributions to particular activities in the public interest and contributions to the performance of federal and advanced federal PET examinations and courses at Colleges of Higher Education. The federal government and the cantons share the monitoring of improvements in quality and quality assurance of the Vocational Baccalaureate.

Teachers working at Colleges of Higher Education who are responsible for teaching in schools require a tertiary qualification as well as six months professional experience and 1,800 teaching hours in VET pedagogics. VET trainers responsible for training learners at training companies and courses taken outside the organisations in which individuals are working require a relevant vocational qualification and training in methodology and didactics. Companies which train learners are required to meet certain standards in order to obtain the necessary training licence from the canton.

The cantons monitor **VET**. This includes the provision of advice and support to learners and VET professionals, and coordination among the parties involved in VET. Monitoring covers:

- the quality of education/training in professional practice
- the quality of school education/training
- examinations and other qualification processes
- compliance with statutory provisions in the teaching contract
- compliance with the teaching contract by the contracting parties

The cantons carry out their monitoring task by means of visits, membership of official bodies, provision of initial and continuing training, meetings and written and verbal information.

In the context of **PET** the SERI monitors federal and advanced federal PET examinations by means of:

- inspection visits
- attending meetings to discuss grades
- submitting reports on new examinations
- making decisions on appeals

In the context of Colleges of Higher Education, the canton carries out its monitoring task by means of:

- visits
- performance agreements with Colleges of Higher Education

In courses which involve a work placement, the placements are monitored by the training providers. The training providers carry out this task by means of visits.

The most important quality assurance element in examinations is the fact that they are sponsored by professional organisations. This ensures that the needs of the labour market are taken into account and represent a single national quality standard. Other quality instruments are the examination rules which can be adapted to reflect the latest developments. In addition, there is an examination board made up

of experienced experts in the field for each federal and advanced federal PET examination. The examination board is responsible for assessing examinations and for developing examination tasks. The SERI is responsible for monitoring the conduct of federal examinations, and is the first recourse for appeal in the event of disputes as to the outcome of a federal and advanced federal PET examination. This ensures that the competences specified for the examinations in the training principles are actually tested and met.

In the case of courses at Colleges of Higher Education, quality assurance is provided by the involvement of professional organisations in the development of framework curricula and involving experts in the final qualification procedure as well as maintaining a regular dialogue directly with companies and businesses. SERI approves the framework curricula and subjects the resulting courses to a recognition procedure. Once the recognition procedure has been completed, the cantons are responsible for monitoring courses at Colleges of Higher Education.

Concrete contribution by VPET partners

To clarify which specific quality assurance tasks are undertaken by VPET partners, several examples of quality assurance measures are listed below. The costs for these quality assurance measures are borne by the partners in question.

1. Training permit

Companies that offer dual training must have a cantonal training permit. This authorises them to carry out training for a particular occupation. The permit is issued on the strength of an on-site inspection (company visit) by the cantonal authorities. The authorities check whether appropriate VET trainers and skilled staff¹⁰² are employed in the company and examines whether they have the necessary technical training and background in vocational education. These regulations are specifically laid down in the vocational education and training ordinances.

The company providing the training must also demonstrate that it is equipped to the required standard and is able to deliver the training content for the occupation in question. With regard to the necessary operational equipment, some professional associations have produced a list of minimum equipment requirements that serves as a guideline for the companies and the supervisory body.

Apprenticeship contracts cannot be approved with trainees until the training permit has been received.

2. QualiCarte

The QualiCarte is a quality development tool for use in practical vocational training. Its purpose is to provide companies with a practical aid for developing quality in vocational training. It includes around thirty quality requirements in the form of a checklist. These requirements describe the key steps throughout the entire vocational training process¹⁰³.

The QualiCarte is primarily used for the self-evaluation of companies that provide vocational training. It is applicable for all occupations, and is also used by the cantonal educational supervision authority and in courses for vocational trainers. Professional organisations can supplement the QualiCarte with their own occupation-specific standards.

3. Example of an industry initiative: "Top training company"

¹⁰² VET trainers can use skilled company staff to deliver some elements of practical vocational training. A skilled member of staff is someone who has completed a vocational education and training course in the subject being studied by the trainee, or has an equivalent qualification. The VET trainers remain responsible even in such cases.

¹⁰³ Further information on the QualiCarte: <http://www.qbb.berufsbildung.ch/dyn/4695.aspx> (consulted on 02.12.2015).

To encourage more young people to take up careers in car-body making and to retain trained staff in this profession, the Swiss car-body makers association (Schweizerische Carrosserieverband, VSCI) relies heavily on the training expertise of companies. It has developed a three-step procedure that supports vocational trainers and provides an incentive in the form of a label.

The "Top training company" project offers support in the form of resources and courses on subjects such as recruiting trainees, training success factors, managing study documentation and integrating trainees into teams. Key factors for VSCI are the project's voluntary nature and its flexibility. Interested businesses can register and decide themselves how far they want to go in the three-step process. A label is issued on completion of each step, so that the company's commitment is visible to the outside world.

The "Top Training Company Level 3" label is awarded by an independent certification authority following an assessment. A review takes place every two years.

4. Vocational education and training documentation

To ensure course content is standardised across different places of learning, the Swiss Service Centre for Professional Training (Schweizerische Dienstleistungszentrum Berufsbildung / Berufs-, Studien- und Laufbahnberatung, SDBB) has developed a "Vocational education and training documentation" platform in conjunction with the State Secretariat for Education, Research and Innovation and professional organisations.

On this platform, professional organisations can access a folder structure and a sample website that can quickly and easily be used to create VET documentation for specific occupations. This folder structure is a filing system in which trainees can file important training documents, and which also contains essential information on vocational education and training. The study documentation – the trainee's study reports – forms part of the VET documentation.

With its "Standards for good study documentation in vocational education and training", the Swiss Federal Institute for Vocational Education and Training (SFIVET) has provided an important basis for study documentation.

Focusing on learning outcomes in quality assurance

The fact that the majority of the basic documentation for both vocational and professional education and training already focuses on learning outcomes is of great assistance for quality assurance (see Criterion 3 and Appendix 6.6). This will become particularly apparent in qualification procedures, which review the competences described.

Vocational education and training

In view of quality assurance and development, and also in order to generate management expertise, SERI commissioned an evaluation of qualification procedures in 2009/2010. Based on the results of this evaluation, SERI then launched a project together with its partners to optimise qualification procedures in 2012. This centred on simplifying the qualification procedures and facilitating a competence-based approach. This facilitation of a competence-based approach currently takes the form of preparing guidelines.¹⁰⁴

Professional education and training

In order for examinations to be designed with a practical focus, several quality tools are available for the preparation of examination regulations:

- The "Guidelines on preparing and revising regulations for Federal examinations"¹⁰⁵.

¹⁰⁴ Further information: <http://www.sbf.admin.ch/berufsbildung/01587/02470/index.html?lang=de> (consulted on 2.12.2015).

¹⁰⁵ Further information: <http://www.sbf.admin.ch/hbb/02500/02502/02509/index.html?lang=de> (consulted on 2.12.2015).

- Boilerplate text for examination regulations.
- The consistency verification procedure in professional education and training, which checks whether vocational competences are being fully included in examinations.
- Exchanges of experiences between examination awarding bodies.
- The "Quality development tool for federal examinations"¹⁰⁶. SERI uses this tool when visiting examinations as part of its supervisory function. This tool also forms the basis upon which awarding bodies can conduct self-assessments. One area covered by the tool (checklist) relates to the extent to which examinations focus on competences.

4.6 Criterion 6

The referencing process shall include the stated agreement of the relevant quality assurance bodies.

Approval by the federal government as a quality assurance body is given because it is responsible for the referencing process. The cantons, as additional quality assurance bodies, have also given their approval because they were involved in the development of the NQF VPET and in its implementation through the Federal Commission for Vocational and Professional Education and Training, FCPET.

4.7 Criterion 7

The referencing process shall involve international experts.

Selection of international experts

The following experts took part in the Swiss referencing process:

- Thomas Mayr, Institute for Business Education and Training Research, expert member of the Austrian Chamber of Business, member of the team responsible for developing the Austrian national qualifications framework and assignment to the EQF, member of the EQF Advisory Group
- Jos Noesen, expert to the Ministry for National Education, Children and Youth, coordinator of the development of the Luxembourg national qualifications framework and assignment to the EQF, member of the EQF Advisory Group

These two experts were selected partly because of their comprehensive knowledge and experience in the context of the development of national qualifications frameworks and referencing to the EQF. They sit on key bodies at European level.

In addition, these experts also come from countries with a dual VPET system and are active in VPET. They are therefore both well placed to assess the Swiss education system and the specific features of this system that relate to the NQF VPET. Work was facilitated by the fact that both these experts speak German.

Cooperation

Cooperation with the international experts started at the beginning of the referencing process and included the following stages:

1. In an initial consultation (March/April 2014) the experts were asked to provide feedback on the plan for implementing the referencing process and on this report. The aim was to secure the referencing process at an early stage.

¹⁰⁶ Further information: http://www.sbfi.admin.ch/hbb/02500/02502/index.html?lang=de#sprungmarke0_51 (consulted on 2.12.2015).

2. The second consultation related to feedback on a draft of the referencing report. The experts were invited to a meeting in Berne in June 2014 for this purpose.
3. The aim of the third consultation was to agree the revised report prior to its presentation at the EQF Advisory Group in February 2015.

The experts gave the following feedback at the various stages:

1. They pointed out that the framework was difficult to understand. It is now clearly limited to the VPET sector, and the terminology used reflects this.

The relationship between the Vocational Baccalaureate, the Specialised Baccalaureate and the Baccalaureate was also unclear. These forms of educational provision are now described in the report, but are not at this stage included in the NQF VPET.

In the context of connections to the higher education area, the question of whether advanced VPET qualifications confer transfer opportunities was also unclear. This was described more clearly in the report.

It was also pointed out that the breadth and quality of the Swiss VPET system is rather unusual in the European context. For that reason, quantitative material was added to the description of the education system.

The tripartite partnership agreement was also described as a supportive element of the Swiss VPET system. Most European countries lack this broad involvement of businesses and their representatives. The co-ownership of the NQF by the members of the tripartite membership agreement was also mentioned.

2. Both experts gave very detailed and useful feedback on the first draft of the report. Their comments were taken into account wherever possible. One aspect which was not clear in the first version of the report was whether an overall qualifications framework was to be devised for Switzerland that also included general education and higher education. The present report now clearly states that the work focuses on the referencing of VPET qualifications and that the debate on an overall framework will not be resumed until after this work is complete.

In general terms, the description of the education system has been refined, responsibilities have been defined more clearly, and specific aspects of the Swiss system have been explained in terms that are easier for an international audience to understand.

Information on pilot projects was also added to the report.

3. After reading the revised version of the report, the experts were able to give us the following feedback:

The report needs to be worded more clearly in general. Some minor technical points were clarified and issues of understanding were settled.

In particular, it was not clear whether qualifications were to be assigned in the NQF VPET individually or in groups according to type of qualification. In addition, the scope of the NQF VPET was not clearly described. A confusion between routes towards qualifications and the actual qualifications was observed. Some sections of the text appeared not in the description of the education system but directly in the part dealing with the relevant criterion. The chapters on validation and competence-orientation were rewritten to make them clearer and more comprehensive.

It was not at all clear whether higher education would be incorporated into the framework at a later stage or not.

The comments were taken into account wherever possible.

We should like to express our particular thanks to the experts for their helpful comments during the production of this referencing report.

International cooperation

In addition to the involvement of the international experts in the referencing process, the following additional forms of cooperation took place in the context of the production of the NQF VPET.

Since 2012 Switzerland has been taking part in the national network meetings of experts from German-speaking countries with a dual VPET system (Germany, Austria, Liechtenstein and Switzerland). The meetings take place at regular intervals¹⁰⁷. They are informal events at which the development of national qualifications frameworks are discussed and experts have the opportunity to exchange views. The German representatives come from the Ministry of Education and Research (BMBF) and the Conference of Ministers of Culture (KMK). The Austrian representatives come from the Federal Ministry of Education, Art and Culture (BMUKK), the Institute for Business Education and Training Research (IBW) and the national NQF coordinating body of the Austrian exchange service (OEAD). The Principality of Liechtenstein is represented by the Agency for International Education Matters (AIBA). The SERI participates on behalf of Switzerland.

Switzerland was a member of the Athens Group, which disbanded in 2011. The Athens Group was another informal body involving Germany, Austria, Denmark, Luxembourg and Switzerland. The national network meetings focus on the EQF, but the Athens Group discussed all topical issues and instruments of the Copenhagen Process.

On 1.1.2015 an agreement on the mutual recognition of federal VET Certificates and Federal VET Diplomas was reached between the Swiss Federal Council and the government of the Principality of Liechtenstein, covering mutual information on assignments in the national qualifications frameworks of each country¹⁰⁸.

At European level, Switzerland has been represented at the Director General for VET (DG VT) meetings and the Advisory Committee on Vocational Training (ACVT) since 2011.

4.8 Criterion 8

The competent national body or bodies shall certify the referencing of the national qualifications framework or system with the EQF. One comprehensive report, setting out the referencing and the evidence supporting it shall be published by the competent national bodies, including the National Coordination Point, and shall address separately each of the criteria.

The competent body for the assignment process and this report is the Secretariat of State for Education, Research and Innovation.

The other national stakeholders involved in the production of the NQF VPET (cantons, professional organisations, Colleges of Higher Education, universities and other interested parties) were kept informed during the course of the production of the referencing process.

The report relates to the current state of development of the national qualifications framework for VPET qualifications. Following its presentation to the EQF Advisory Group, the referencing report will be published on the SERI website. A separate website for the implementation of the NQF VPET

¹⁰⁷ March 2012/Vienna, June 2012/Berlin, October 2012/Berne, April 2013/Vaduz, October 2013/Salzburg, April 2014/Hamburg, December 2014/Malbun, May 2015/Zurich.

¹⁰⁸ Agreement between the Swiss Federal Council and the government of the Principality of Liechtenstein on the mutual recognition of competence certificates and vocational diplomas in basic VET/PET: <http://www.admin.ch/opc/de/official-compilation/2015/53.pdf>, 20.01.2015.

<http://www.sbf.admin.ch/nqr/index.html?lang=en>, was also set up and the report will also be published there.

4.9 Criterion 9

The official EQF platform shall maintain a public listing of member states that have confirmed that they have completed the referencing process, including links to completed referencing reports.

The referencing report was first presented to the EQF Advisory Group on 4 February 2015, and presented in full on 27/28 May 2015.

Following the presentation of the Swiss referencing report to the EQR Advisory Group, it has been revised in the light of comments received. Written comments were received from Germany, Liechtenstein, the UK and cedefop. SERI would like to thank all the EQR Advisory Group members who commented on the report. The report was revised and will now be submitted to the competent body of the European Commission for publication on the EQF platform.

4.10 Criterion 10

Following the referencing process, and in line with the timelines set in the Recommendation, all new qualification certificates, diplomas and Europass documents issued by the competent authorities contain a clear reference, by way of national qualifications systems, to the appropriate European Qualifications Framework level.

4.10.1 Standardised certificate supplement and personalised diploma supplement

Certificate supplements and diploma supplements were produced on the basis of the Europass model as additional information instruments to the NQF VPET¹⁰⁹. A standardised certificate supplement will be devised for each VET qualification. These can be downloaded by graduates free of charge.

A personalised diploma supplement will be devised for each PET qualification. This is issued to graduates along with their diploma. Personalised diploma supplements contain the graduate's surname, first name, date of birth and matriculation number (if any). The other information on the diploma supplement is identical per qualification.

The certificate supplements and diploma supplements show the level of the qualification in the NQF VPET and will, referencing has taken place, also be showing the EQF level. In addition, they describe what a person with the qualification in question is able to do as a result of the knowledge, skills and competences that he or she has acquired. Other information relates to the fields of professional activity open to the holder of the qualification. The aim of the certificate and diploma supplements is to provide relevant information to employers in a concise and precise form. It will be available in German, French, Italian and English. The information applies only in connection with the qualification in question. In order to guarantee international transparency, the models for certificate supplements¹¹⁰ and diploma supplements¹¹¹ are based on the corresponding Europass models.

The Ordinance on the National Qualifications Framework for VPET qualifications Art 7 also states that a list of assigned qualifications is to be created as an annex to the Ordinance and updated on an ongoing basis. This list consists of the "SERI ordinance regarding the list of VPET qualifications classified in accordance with the national qualifications framework for VPET qualifications" (SR 412.105.12) that

¹⁰⁹ See Annex 3 of the Ordinance on the National Qualifications Framework for VPET qualifications for a model for diploma supplements and certificate supplements.

¹¹⁰ <http://europass.cedefop.europa.eu/de/documents/certificate-supplement>, 22.05.2014.

¹¹¹ <http://europass.cedefop.europa.eu/de/documents/diploma-supplement>, 22.05.2014.

came into force on 1 June 2015. The list will be published for the first time in January 2016, and subsequently updated every six months.

The reference to this list is also included in the following regulations:

- In the case of Federal Certificates of Vocational Education and Training or Federal Diplomas of Vocational Education and Training, in the training plan;
- In the case of Federal and Advanced Federal Diploma of Higher Education, in the examination rules;
- In the case of qualifications obtained after taking courses at Colleges of Higher Education, in the framework curriculum.

The actual NQF levels for individual qualifications are not specified in the regulations since they cannot be classified until after the regulations have been approved and issued, and the regulations cannot be amended after this point in time.

Since the qualifications are always provided together with a certificate or diploma supplement, SERI has decided not to show the NQF and EQF levels on the diplomas themselves. Moreover, it is quite possible that a review may result in a qualification's level being changed. This is another reason why we do not want to show the levels on the original diplomas. The current levels for all qualifications that have already been classified are always available online, as are the current certificate and diploma supplements.

5 Outlook

This report has explained how the national qualifications framework for Swiss VPET qualifications is referenced to the European qualifications framework for lifelong learning using the criteria and procedures specified by the EQF Advisory Group. It outlines the progress made in implementing the NQF VPET. This section highlights the steps that still need to be taken in order to implement and further develop the NQF VPET.

The next major step is to implement the NQF VPET in Switzerland. This involves assigning the 730 VPET qualifications over the next few years in line with the process described in the guidelines (transition procedure). The first few classifications will be published in January 2016. The aim is to have classified all VPET qualifications by the end of 2017 if possible, with the exception of those qualifications that have to be reviewed before they can be classified.

Following that the VPET qualifications will be assigned to a NQF VPET level during the regular revision process of VPET qualifications or whenever new qualifications are designed (regular assignment procedure).

Further action regarding the two existing national qualifications frameworks (NQFs) will be planned pragmatically. The focus over the next few years will be on implementing the NQF VPET.

There is currently neither a need nor a mandate to develop an overall Swiss NQF. Although the creation of an overall framework cannot be ruled out in the future, there is at present no necessity or political mandate for this.

Moreover, due to the priorities outlined above, other educational areas (general upper-secondary education and non-formal education) are not currently being included in the NQF VPET. The aim is to assign all the formal VPET qualifications to the NQF VPET as quickly as possible. The involvement of other educational areas will be reviewed again in the light of experience after the NQF VPET has been implemented. However, there is currently no concrete time schedule for this.

With the simultaneous introduction of certificate and diploma supplements, the NQF implementation is intended to deliver concrete benefits for graduates, employers and the entire educational system. The first certificate and diploma supplements with EQF and NQF VPET levels can be published following the full presentation of this referencing report at the EQF AG in May 2015. The first definitive classifications are expected in January 2016, as are the first concrete certificate and diploma supplements. The qualifications will also be added to the list, which is available for public viewing. The preparation of a qualification register will also be assessed once again after the high-priority implementation of the NQF VPET in Switzerland.

The referencing report was revised after the full presentation in May 2015 based on the feedback received. It will then be published on the www.nqr.berufsbildung.ch website and sent to the European Commission in English for publication on its Ploteus Internet portal.

6 Appendix

6.1 Glossary

Abbrevia- tion	Meaning
ACVT	Advisory Committee on Vocational Training
BMUKK	Federal Ministry of Education, Arts and Culture (Austria)
BMWF	Federal Ministry of Science and Research (Austria)
CET	Continuing Education and Training
COHEP	Swiss Conference of Rectors of Universities of Teacher Education
CRUS	Former conference of rectors of Swiss universities
ECTS	European Credit Transfer and Accumulation System
ECVET	European Credit System for Vocational Education and Training
EDK	Swiss Conference of Cantonal Ministers of Education
EQF	European Qualifications Framework
ETH	Federal Institutes of Technology
EU	European Union
FCVPET	Federal Commission for Vocational and Professional Education and Training
FDEA	Federal Department of Economic Affairs (until 2013; renamed EAER in 2014 due to reorganisation)
FDHA	Federal Department of Home Affairs
HarmoS	Intercantonal Agreement on the Harmonisation of Compulsory Schooling
HEdA	Federal Act on the Funding and Coordination of the Higher Education Sector
ISCED	International Standard Assignment of Education
KFH	Former Rectors' Conference of the Swiss Universities of Applied Sciences
MiR-PC	FDEA Ordinance of 11 March 2005 on the Minimum Requirements for the Recognition of Courses of Study and Post-Graduate Programmes at Professional Colleges
NQF	National Qualifications Framework
nqf.ch-HS	Qualifications Framework for the Swiss Higher Education Area
OAQ	Former Swiss Centre of Accreditation and Quality Assurance in Higher Education
OPET	Federal Office for Professional Education and Technology (until 2013, became SERI in 2014 following merger with SER)
QF EHEA	Qualifications Framework for the European Higher Education Area
QSK	Quality Assurance Commission
SBBK	Conference of Swiss VPET Agencies

Abbrevia- tion	Meaning
SER	State Secretariat for Education and Research (until 2013; became SERI in 2014 following merger with OPET)
SERI	State Secretariat for Education, Research and Innovation (renamed in 2014 due to reorganisation)
SFIVET	Swiss Federal Institute for Vocational Education and Training
SKBQ	Swiss Commission for Career Development and Quality
SUC	Swiss University Conference
VET	Vocational Education and Training
NQF VPET	NQF for vocational and professional education and training qualifications
VPETA	Federal Act of 13 December 2002 on Vocational and Professional Education and Training
VPETO	Ordinance of 19 November 2003 on Vocational and Professional Education and Training
Abbreviation	Meaning
ACVT	Advisory Committee on Vocational Training
BMUKK	Federal Ministry of Education, Arts and Culture (Austria)
BMWF	Federal Ministry of Science and Research (Austria)
COHEP	Swiss Conference of Rectors of Universities of Teacher Education

6.2 Bibliography

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6.3 Ordinance on the National Qualifications Framework for VPET Qualifications

Ordinance on the National Qualifications Framework for VPET Qualifications (O-NQF-VPET)

of 27. August 2014 (status as of 1 Oktober 2014)

The Swiss Federal Council,

based on Article 34 para 1 and 65 of the Federal Vocational and Professional Education and Training Act of 13 December 2002¹ (VPETA),

ordains:

Section 1: General Provisions

Art. 1 Object and purpose

¹ This Ordinance establishes the National Qualifications Framework for VPET Qualifications (NQF VPET) as well as the certificate supplements and diploma supplements for upper-secondary level VET qualifications and tertiary-level PET qualifications.

² The NQF VPET is intended to create national and international transparency and enable the comparison of VET and PET qualifications, thereby facilitating mobility within the labour market.

Art. 2 Scope

This Ordinance covers all training and corresponding qualifications regulated by the State Secretariat for Education, Research and Innovation (SERI):

- a. for upper-secondary level VET;
- b. for tertiary-level PET;
- c. for training provided to vocational school teachers, apprenticeship trainers, traineeship supervisors, branch course instructors and examiners (collectively referred to as VET professionals).

¹ SR 412.10

Section 2: NQF VPET, Certificate Supplements and Diploma Supplements

Art. 3 NQF VPET

¹ The NQF VPET comprises eight levels, each broken down into three categories of requirements “knowledge”, “skills” and “competences”. These levels and categories are defined in Annex 1. They are based on the recommendation made by the European Parliament and of the Council of 23 April 2008² on the establishment of the European Qualifications Framework for lifelong learning.

² Each VET qualification, PET qualification and qualification for VET professionals is assigned a level within the NQF VPET.

Art. 4 Certificate supplements and diploma supplements

¹ A standardised certificate supplement will be issued for each VET qualification.

² A personalised diploma supplement will be issued for each PET qualification and for each qualification for VET professionals.

³ Certificate supplements and diploma supplements include the following in particular:

- a. information concerning the level that the qualification holds within the NQF VPET;
- b. a description of the knowledge, skills and competences possessed by the holder of the corresponding qualification.

⁴ Certificate supplements and diploma supplements are drafted on the basis of the template provided in Annex 2.

⁵ Certificate supplements are issued in German, French, Italian and English.

⁶ Diploma supplements are issued in German, French or Italian as desired and always with an English translation.

⁷ Certificate supplements and diploma supplements may only be used in combination with the corresponding qualification.

Art. 5 Issuance of certificate supplements and diploma supplements

¹ SERI posts the certificate supplement for each Federal VET Certificate and Federal VET Diploma on its website³.

² The entities responsible for awarding Federal PET Diplomas and Advanced Federal PET Diplomas also issue the corresponding diploma supplements.

² ABl. C 111 of 06.05.2008, p. 1

³ www.sbf.admin.ch

Art. 6 Assignment of VET qualifications, PET qualifications, qualifications for VET professionals and basic reference documents

¹ The assignment of each VET qualification, PET qualification and qualification for VET professionals shall take place in accordance with the requirements set forth in the basic reference documents.

² Basic reference documents are defined as follows:

- a. for VET qualifications: VET ordinance, training plan and competence profile;
- b. for the Federal PET Diploma or Advanced Federal PET Diploma: examination regulations and guidelines;
- c. for professional college degrees: the corresponding core syllabus based on the conditions established by the Federal Department of Economic Affairs, Education and Research (EAER) under Article 29 paragraph 3 VPETA and Article 46 paragraph 2 VPETA in conjunction with Article 41 the Federal Vocational and Professional Education and Training Ordinance of 19 November 2003⁴ (VPETO);
- d. for qualifications for VET professionals: core syllabuses under Article 49 VPETO.

Art. 7 Procedure

¹ SERI shall assign a level to a VET qualification, PET qualification and qualification for VET professionals using a procedure based on the rules for training content and qualification procedures set out in federal legislation on vocational and professional education and training. For VET and PET qualifications, professional organisations shall submit an NQF level proposal to SERI.

² Once the qualification has been entered into the list referred to in Article 8, the assigned NQF level will be binding.

³ The assigned NQF level will also be indicated in the following documents:

- a. VET qualifications: in the training plan (Art. 19 VPETA; Art. 12 VPETO⁵);
- b. Federal PET Diploma or Advanced Federal PET Diploma: in the examination regulations to be approved by SERI (Art. 28 para. 2 and 3 VPETA; Art. 26 VPETO);
- c. Professional college degrees: in the core syllabus in accordance with the directives issued by EAER, based on Article 29 paragraph 3 VPETA and Article 46 paragraph 2 VPETA in conjunction with Article 41 VPETO;
- d. Qualifications for VET professionals: in the core syllabuses (Art. 49 VPETO).

⁴ SR 412.101

⁵ SR 412.101

Art. 8 List of qualifications

SERI will establish a list of VET qualifications, PET qualifications and qualifications for VET professionals in alphabetical order along with an indication of the corresponding protected titles or, in the case of qualifications for VET professionals, with the corresponding federal or federally recognised diploma and assigned NQF level.

Section 3: Final Provisions**Art. 9** Assigning qualifications to an NQF level

¹ Professional organisations shall submit an NQF level proposal to SERI for VET and PET qualifications within three years of commencement of this Ordinance.

² SERI shall assign qualifications for VET professionals to an NQF level within three years after commencement of this Ordinance.

Art. 10 Transitional provision on the issuance of certificate supplements for VET qualifications obtained prior to commencement of this Ordinance

Persons who obtain a VET qualification prior to commencement of this Ordinance are entitled to use the corresponding certificate supplement and title for that qualification.

Art. 11 Transitional provisions on the issuance of diploma supplements for PET qualifications obtained prior to commencement of this Ordinance

¹ Persons who obtain a PET qualification prior to commencement of this Ordinance may contact SERI to request issuance of a corresponding diploma supplement.

² The prerequisite for issuance of the diploma supplement is that the holder of the PET qualification be entitled to use the corresponding title, and that:

- a. there have been no significant changes to basic reference documents since the qualification was obtained; or
- b. if there have been no significant changes to basic reference documents since the qualification was obtained: the qualification holder can demonstrate that he/she has gained at least five years of work experience in the relevant field.

³ SERI shall decide on issuance.

Art. 12 Transitional provisions on the issuance of diploma supplements for federal or federally recognised qualifications for VET professionals obtained prior to commencement of this Ordinance

¹ Persons who obtain a qualification for VET professionals prior to commencement of this Ordinance may contact SERI to request issuance of a corresponding diploma supplement.

² The prerequisite for issuance of the diploma supplement is that the qualification in question is federal or federally recognised, and that:

- a. there have been no significant changes to basic reference documents since the qualification was obtained; or
- b. if there have been no significant changes to basic reference documents since the qualification was obtained: the qualification holder can demonstrate that he/she has gained at least five years of work experience in the relevant field.

³ SERI shall decide on issuance.

Art. 13 Commencement

This Ordinance shall come into force on 1 October 2014.

...

On behalf of the Swiss Federal Council

President of the Confederation: Didier Burkhalter
Federal Chancellor: Corina Casanova

Annex I
(Art. 3 para. 1)

National Qualifications Framework for VPET Qualifications

	Knowledge	Skills	Competences
Level 1	<p>Knowledge: Possess basic knowledge specific to the working or learning context and a basic general education.</p> <p>Understanding: Understand basic, general correlations within the working or learning context and able to explain these in one's own words.</p>	<p>Procedural skills: Able to recognise basic standardised tasks in a specific field to a certain extent.</p> <p>Sensorimotor skills: Able to use specific technical aids and instruments to solve basic standardised tasks in a specific field based on specific operational guidelines.</p>	<p>Professional competences: Possess initial practical experience within a business or similar setting from which further knowledge and skills may be developed. Work can be carried out according to instructions.</p> <p>Personal competences: <i>Autonomy:</i> able to apply the requisite knowledge and skills under instruction or operational guidelines in clearly defined assigned tasks within a business or similar setting and adhering to mandatory guidelines. <i>Social competences:</i> able to adapt one's own behaviour to the situation at hand and interact appropriately with others, work within a team and convey information both verbally and in writing.</p>

	Knowledge	Skills	Competences
Level 2	<p>Knowledge: Possess basic knowledge specific to the working or learning context and a basic general education.</p> <p>Understanding: Understand the general correlations within the specific working or learning context or branch and able to explain these in one's own words.</p>	<p>Procedural skills: Able to recognise and handle standardised tasks in a specific field to a certain extent based on operational guidelines.</p> <p>Sensorimotor skills: Able to use specific technical aids and instruments to solve standardised tasks in very familiar situations in a specific field based on operational guidelines.</p>	<p>Professional competences: Drawing from initial work experience, able to use the requisite knowledge and skills at this level to carry out organised and planned work within a business. Work can be carried out according to instructions.</p> <p>Personal competences: <i>Autonomy:</i> able to apply the requisite knowledge and skills to assigned tasks in a specific field partly on one's own. Able to assist in the planning of simple tasks within a specific field and carry out these tasks in accordance with mandatory guidelines. <i>Social competences:</i> able to adapt one's behaviour to the situation at hand and interact appropriately with others, work within a team and convey simple information from the specific field both verbally and in writing in a suitable form.</p>

	Knowledge	Skills	Competences
Level 3	<p>Knowledge: Possess knowledge specific to the working or learning context and general education.</p> <p>Understanding: Understand the correlations within the specific working or learning context or branch and able to explain these in one's own words.</p>	<p>Procedural skills: Able to recognise tasks in a specific field. Able to carry out tasks based on operational guidelines and known problem-solving strategies.</p> <p>Sensorimotor skills: Able to use specific technical aids and instruments to solve standardised tasks in familiar situations in a specific field based on operational guidelines.</p>	<p>Professional competences: Drawing from work experience, able to use the requisite knowledge and skills at this level to ensure the successful application of working techniques and basic working processes within a business. Work can partly be carried out on one's own.</p> <p>Personal competences: <i>Autonomy:</i> able to apply the requisite knowledge and skills in a specific field partly on one's own. Within the specific field, able to share responsibility for simple tasks and adhere to mandatory guidelines. <i>Social competences:</i> able to adapt one's behaviour to the situation at hand and the needs of others, work within a team and convey information from the specific field both verbally and in writing in a suitable form.</p>

	Knowledge	Skills	Competences
Level 4	<p>Knowledge: Possess more in-depth knowledge specific to the working or learning context and general education. Also able to acquire on one's own specific technical knowledge.</p> <p>Understanding: Understand the correlations within the specific working or learning context or branch as well as from thematically related fields and able to explain these in one's own words.</p>	<p>Procedural skills: Able to recognise tasks in a specific field. Able to carry out tasks based on operational guidelines or through the use of known problem-solving strategies.</p> <p>Sensorimotor skills: Able to use specific technical aids and instruments to solve particularly difficult tasks in familiar situations in a specific field based on operational guidelines or with the help of known methods or tools. Able to use basic means of communication.</p>	<p>Professional competences: Drawing from work experience, able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes within a business. Work can be performed on one's own. Able to supervise routine tasks of other persons.</p> <p>Personal competences: <i>Autonomy:</i> able to apply the requisite knowledge and skills in a specific field mostly on one's own. Within the specific field, able to take responsibility for clearly defined tasks and handle changing requirements. <i>Social competences:</i> able to adapt one's behaviour to the situation at hand and the needs of others, work within a team and convey information from the specific field both verbally and in writing in a suitable form. <i>Leadership competences:</i> able to show other workers how to perform a specific set of tasks within a given working context.</p>

	Knowledge	Skills	Competences
Level 5	<p>Knowledge: Possess extensive knowledge of important areas of work and a more in-depth general education. Also able to acquire on one's own specific technical knowledge.</p> <p>Understanding: Understand the correlations within or outside the specific working context or branch and able to explain these in one's own words.</p>	<p>Procedural skills: Able to recognise and analyse tasks in a specific field. Able to carry out tasks based on operational guidelines or through the use of known problem-solving strategies.</p> <p>Sensorimotor skills: Able to suitably prepare and use specific technical aids and instruments to solve fairly difficult tasks in various situations in a specific field based on operational guidelines or with the help of known methods or tools. Able to use basic means of communication properly and present information from the specific field.</p>	<p>Professional competences: Drawing from work experience, able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes within a business. Work can be performed in the form of independent and strategic activities. Able to supervise and guide routine tasks of other persons.</p> <p>Personal competences: <i>Autonomy:</i> able to apply the requisite knowledge and skills in a specific field on one's own. Within the specific field, able to take responsibility for tasks and handle changing requirements. <i>Social competences:</i> able to reflect on one's own role and adapt one's behaviour to the situation at hand and the needs of others, work within a team and convey information from the specific field both verbally and in writing in a precise and suitable form. <i>Leadership competences:</i> able to manage workers in several specific fields of activity within a given working context.</p>

	Knowledge	Skills	Competences
Level 6	<p>Knowledge: Possess advanced knowledge in all important areas of work and more in-depth general education. Also able to acquire on one's own specific technical and interdisciplinary knowledge.</p> <p>Understanding: Understand the correlations within or outside the specific working context or branch and able to see linkages with thematically related fields.</p>	<p>Procedural skills: Able to recognise, analyse and assess complex tasks in a specific field. Able to carry out tasks based on operational guidelines or through the use of known problem-solving strategies.</p> <p>Sensorimotor skills: Able to suitably prepare and use specific technical aids and instruments to solve difficult tasks in various situations in specific fields based on suitable and known methods or tools. Able to use basic means of communication properly and present information from the specific field.</p>	<p>Professional competences: Drawing from versatile work experience, able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes and produce strategic results within a business. Work can be performed in the form of independent and strategic activities as well as in the form of consulting. Able to handle complex technical activities and projects and take important decisions.</p> <p>Personal competences: <i>Autonomy:</i> able to apply the requisite knowledge and skills in a specific field and thematically related fields on one's own. Within the entire specific field, able to take responsibility for tasks and processes and handle changing requirements. <i>Social competences:</i> able to reflect on one's own role and the role of others and conscientiously maintain these roles in dealings with others, work within a team and convey information from the specific field both verbally and in writing in a precise, understandable and suitable form. <i>Leadership competences:</i> able to manage workers in several fields of activity within a given working context, partly assume responsibility for these workers and support them.</p>

	Knowledge	Skills	Competences
Level 7	<p>Knowledge: Possess advanced, solid and detailed knowledge of all important areas of work and extensive general education. Also able to acquire on one's own specific technical and interdisciplinary knowledge.</p> <p>Understanding: Understand the complex correlations within or outside the specific working context or the branch and able to see interdisciplinary linkages with thematically related or unrelated fields.</p>	<p>Procedural skills: Able to recognise, analyse and assess complex tasks in a given interdisciplinary field. Able to carry out tasks based on operational guidelines or through the use of suitable, innovative problem-solving strategies.</p> <p>Sensorimotor skills: Able to suitably prepare and use specific technical aids and instruments to solve very difficult and challenging tasks in every situation from thematically related fields based on suitable and at times entirely novel methods or tools. Able to make full use of the possibilities of various means of communication and present complex information from the specific field.</p>	<p>Professional competences: Drawing from versatile work experience, able to use the requisite knowledge and skills at this level to ensure smooth operation of one's own working processes and produce strategic results within a business. Work can be performed in the form of managerial and consulting activities as part of a complex working process and contribute to the further development of the business or improvement of working processes. Able to plan and adopt new strategic approaches to complex, unforeseen activities and projects.</p> <p>Personal competences: <i>Autonomy:</i> able to apply the requisite knowledge and skills in a challenging field and thematically related fields independently and conscientiously. Able to take responsibility for increasingly complex tasks and processes and handle changing requirements.</p>

	Knowledge	Skills	Competences
Level 7			<p><i>Social competences:</i> able to reflect on one's own role and the role of others, define these roles and conscientiously maintain them in dealings with others. Able to work within a team and to convey complex information from the specific field both verbally and in writing in a precise, understandable and suitable form, having the desired impact on and being tailored to the intended recipients.</p> <p><i>Leadership competences:</i> able to manage workers in a field of activity within a given working context, completely assume responsibility for these workers and support them in a targeted fashion.</p>

	Knowledge	Skills	Competences
Level 8	<p>Knowledge: Possess advanced, solid, specialised, detailed and systematic knowledge in all areas of work and extensive general education. Also able to acquire on one's own specific technical and interdisciplinary knowledge.</p> <p>Understanding: Understand the complex correlations within or outside the specific working context or branch and able to see interdisciplinary linkages with complex thematically related or unrelated fields.</p>	<p>Procedural skills: Able to fully recognise, analyse and assess complex and highly challenging tasks in a given interdisciplinary specific field. Able to carry out tasks based on operational guidelines or through suitable, innovative problem-solving strategies and make relevant prognoses or recommendations.</p> <p>Sensorimotor skills: Able to suitably prepare and use specific technical aids and instruments to solve novel, very difficult and highly challenging tasks in every situation from thematically related fields based on suitable and entirely novel or innovative methods or tools. Able to make full use of the possibilities of various means of communication and present complex and differentiated information from the specific field.</p>	<p>Professional competences: Drawing from extensive work experience, able to use the requisite knowledge and skills at this level in a targeted fashion to ensure smooth operation of one's own working processes and produce strategic results within a business. Work can be performed in the form of managerial and consulting activities as part of one or more complex working processes and contribute to the further development of the business or improvement of working processes.</p> <p>Personal competence: <i>Autonomy:</i> able to fully and conscientiously apply the requisite knowledge and skills in a specific highly challenging field and thematically related fields on one's own. Able to take responsibility for complex tasks and processes and handle changing requirements within the entire highly challenging field.</p>

	Knowledge	Skills	Competences
Level 8			<p><i>Social competences:</i> able to reflect on and shape one's own role and the role of others, behave responsibly in dealings with others, work in a team and strategically apply one's analytical skills within the working context. Able to convey complex and differentiated information from the specific field both verbally and in writing in a precise, understandable, suitable and professional form, having the desired impact on and being tailored to the intended recipients.</p> <p><i>Leadership competences:</i> able to manage workers in a highly challenging field of activity within a given working context, completely assume responsibility for these workers and support them in a targeted fashion to take personal initiative.</p>

Annex 2
(Art. 4 para. 4)

Logo

Certificate Supplement

Logo

This certificate supplement draws its legal basis in Article 4 paragraph 1 of the Ordinance of 1 October 2014 on the National Qualifications Framework for Vocational and Professional Education and Training Qualifications (NQF-VPET-O, SR 412.105.1). This certificate supplement follows the model recommended by the European Parliament and Council (Decision No. 2241/2004/EC). The purpose of the certificate supplement is to provide sufficient data to improve the international transparency and fair professional recognition of qualifications (diplomas, certificates etc.). It describes the nature, level, context, content and type of training and education pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. The certificate supplement should be free from any value-judgements, equivalence statements or suggestions about recognition.

Additional information can be found at: www.sbf.admin.ch

1. Title of the qualification (in the original language)

2. Translated title of the qualification

3. Profile of skills and competences

4. Range of occupations accessible to the holder of the qualification

5. Official basis of the qualification	
Name and status of the body awarding the qualification (professional organisation)	Name and status of the national authority responsible for issuing the qualification
Level of the qualification (national or international)	Grading scale/Pass requirements
Access to next level of education/training (optional)	International agreements (optional)
Legal basis of the qualification	

6. Officially recognised ways of acquiring the qualification
Additional information:
National Reference Point:

Logo

Diploma supplement

Logo

This diploma supplement is based on Article 4 paragraph 2 of the Ordinance of 1 October 2014 on the National Qualifications Framework for Vocational and Professional Education and Training Qualifications (NQF-VPET-O, SR 412.105.1). This diploma supplement follows the model developed by the European Commission, Council of Europe and UNESCO/CEPES (Decision No. 2241/2004/EC). The purpose of the diploma supplement is to provide sufficient data to improve the international transparency and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It describes the nature, level, context, content and type of training and education pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. The diploma supplement should be free from any value-judgements, equivalence statements or suggestions about recognition.

Additional information can be found at: www.sbf.admin.ch

1. Information identifying the holder of the qualification	
1.1 Family name(s)	
1.2 First names	
1.3 Date of birth	
1.4 Student number	

2. Information identifying the qualification	
2.1 Name of qualification and awarded title	
2.2 Main field(s) of study for the qualification	
2.3 Name of institution awarding qualification	
2.4 Name of institution administering qualification	
2.5 Language(s) of instruction/examination	

3. Information on the level of the qualification
3.1 Level of qualification
3.2 Length of programme
3.3 Access requirements

4. Information on the contents and results gained
4.1 Mode of study
4.2 Qualification requirements
4.3 Qualification details
4.4 Grading scheme, grade distribution guidance
4.5 Overall classification

5. Information on the function of the qualification
5.1 Access to further levels of training
5.2 Professional status

6. Additional information

6.1 Additional information

6.2 Additional information sources

7. Certification of the supplement**Issued by:****8. Information on the national education system**

6.4 Guidelines on the National Qualifications Framework for VPET Qualifications



www.nqr-berufsbildung.ch



Guidelines on the National Qualifications Framework for VPET Qualifications

Instructions on how to prepare
NQF level proposals, certificate
supplements (for VET qualifications)
and diploma supplements (for PET
qualifications)



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Swiss Confederation

Federal Department of Economic Affairs,
Education and Research EAER
**State Secretariat for Education,
Research and Innovation SERI**

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These guidelines are updated as needed. The latest version can be found online.

INTRODUCTION

Reinforcing the VPET system

The Swiss National Qualifications Framework for VPET Qualifications (NQF VPET), together with certificate supplements and diploma supplements, make it easier for potential employers and government authorities to understand the Swiss VPET system and corresponding VET and PET qualifications. This encourages greater mobility of skilled workers and managers and reinforces the VPET system as a whole.

Swiss National Qualifications Framework for VPET qualifications as a translation tool

Each Swiss VET and PET qualification will be allocated to one of eight levels within the NQF VPET on the basis of the requirements that must be met in order to obtain them. In addition, a certificate supplement will be prepared for each VET qualification and a diploma supplement for each PET qualification. These documents will indicate the level that the qualification holds within the NQF VPET.

In order to enable Swiss VET and PET qualifications to be compared more easily with similar qualifications in other countries, the NQF VPET will be referenced to the European Qualifications Framework (EQF). In addition, each certificate supplement and diploma supplement will provide information enabling potential employers in Switzerland and other countries to quickly assess the technical competence of the qualification holder.

Guidelines as a frame of reference to assist the awarding body responsible for each qualification

The present guidelines are intended for the the awarding body responsible for each qualification of Swiss VET and PET qualifications. The guidelines describe the procedure to be followed when assigning such qualifications and preparing a corresponding certificate supplement (for VET qualifications) or diploma supplement (for PET qualifications).

Examples are intended solely for the purpose of illustrating working steps.

In the annexes to these guidelines, you will find the required forms and templates for the submission of allocation proposals for VET and PET qualifications. The latest versions of these documents can be found online at: www.nqr-berufsbildung.ch.

Information events

SERI regularly organised information events to answer any questions and explain the procedure to be followed when preparing a NQF level proposal. The dates are posted here: www.nqr-berufsbildung.ch.

Legal basis

The *Ordinance on the National Qualifications Framework for VPET Qualifications* dated 1 October 2014¹ forms the legal basis for assignment.¹

Additional information

State Secretariat for Education
Research and Innovation (SERI),
NQF VPET Unit
Einsteinstrasse 2, 3005 Bern
Switzerland
Tel. +41 58 465 48 91
nqr-berufsbildung@sbfi.admin.ch

¹ SR 412.105.1

PART I: GENERAL INFORMATION

1.1 How to assign qualifications

NQF assignment process during transitional period (2014-2017)

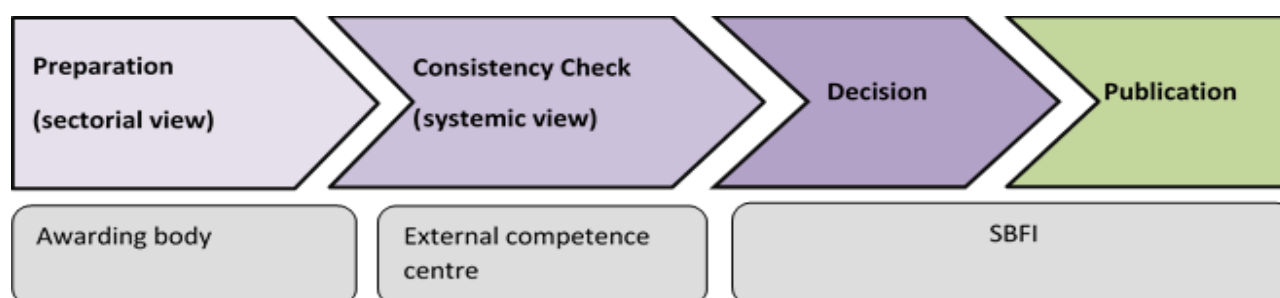
After entry into force of the *Ordinance on the National Qualifications Framework for VPET Qualifications*² on 1 October 2014, upper-secondary level VET qualifications, tertiary-level PET qualifications and qualifications awarded to vocational school teachers, apprenticeship trainers, traineeship supervisors, branch course instructors and examiners (collectively referred to as VET professionals) will be assigned to a level of the NQF VPET over the next three years in accordance with the process described in these guidelines.

Standard NQF assignment process (starting in 2018)

A standard NQF assignment process will be introduced for the assignment of existing VET and PET qualifications and the updating or adoption of newly created qualifications.

1.2 The process of assigning qualifications to NQF levels

The assignment of qualifications is based on similar processes as those used when revising VET and PET qualifications.



The NQF level proposal is always made by the the awarding body responsible for each qualification. This awarding body also prepares certificate supplements and diploma supplements.

The Swiss Federal Institute for Vocational Education and Training (SFIVET) checks the completeness and quality of all NQF level proposals. This consistency check is intended to ensure that all qualifications are treated equally and that assignment remains coherent. SFIVET will discuss any discrepancies with the the awarding body responsible for each qualificationto reach a consensus.

The SERI is responsible for reaching the final decision on the awarding body's NQF level proposal. If no consensus is reached, then the NQF level proposal will be not be approved.

The SERI reaches its decision following consultation with the members of the Federal Commission for Vocational and Professional Education and Training (EBBK). The SERI will then maintain and publish a list of assigned qualifications.

This process is explained in detail in Chapter 3.1.

² SR 412.105.1

1.3 Basics

Qualifications

The following formal VET and PET qualifications, which are subject to the provisions of the Federal Vocational and Professional Education and Training Act (VPETA)³, are assigned.

Upper-secondary level VET qualifications:

- Federal VET Certificate (two-year VET programme)
- Federal VET Diploma (three-year or four-year VET programme)

Tertiary level PET qualifications:

- Examination for Federal PET Diploma;
- Examination for Advanced Federal PET Diploma
- Federally recognised professional college degree
- Qualifications issued to VET professionals

Only qualifications that have been assigned a separate **VET/PET identifier** may be assigned to the NQF VPET.

For VET qualifications, there is no separate NQF assignment for **specialisms** and **branches**. However, there is the possibility of creating additional certificate supplements. No certificate supplements are issued for priority subjects.

For professional colleges, core syllabuses are assigned. Fields of study may be assigned separately but not areas of specialisation.

Basic reference documents

VET qualifications:

- VET Ordinance
- Training plan and competence profile

PET qualifications:

- Examination regulations and guidelines with job profile and competence profile (examination for Federal PET Diploma and Advanced Federal PET Diploma)
- MiR-PC⁴ and core syllabus (professional college)

The assignment of a qualification into the NQF VPET is determined on the basis of the professional competences required in order to pass the examination. A professional competence indicates the ability to handle a typical working situation. It is comprised of technical competence, methodological competence, personal competence and social competence.

Important:

If there are no adequately competence-oriented descriptions for a given qualification, the qualification must undergo revision before NQF assignment can take place (see step 3).

³ SR 412.10

⁴ FDEA Ordinance of 11 March 2005 on the Minimum Requirements for the Recognition of Courses of Study and Post-Graduate Programmes at Professional Colleges. SR 412.101.61

Awarding body

The awarding bodies responsible for each qualification include all professional organisations that have signed the corresponding basic documents.

An awarding body submits an NQF level proposal **for all VET and PET qualifications that they are responsible for** at the same time. The only exceptions are qualifications that need to be revised prior to allocation or that are currently already undergoing revision.

Awarding bodies are responsible for deciding on the **internal structure** and planning of the NQF level proposal elaboration process. Awarding bodies may also decide whether to create committees – i.e. committee for occupation development and quality (CODQ), quality control committees (QCCs) – and whether such committees should be involved in the NQF assignment process.

Awarding bodies responsible for each qualification may call in an **external consultant** when preparing the NQF level proposal.

1.4 Typical qualification levels within NQF VPET

Based on the logic of the Swiss education system and various NQF level proposals examined for illustration purposes, we present below approximate NQF assignment trends for individual types of VET and PET qualifications. These assignment trends may serve as a starting point for reference whenever a specific qualification needs to be assigned to a corresponding level within the NQF VPET.

Level	Qualification type
8	
7	
6	
5	
4	
3	Fed. VET Certificate
2	Fed. VET Diploma
1	

Level	Qualification type
8	
7	Advanced Fed. PET Diploma
6	PET College Degree
5	Fed. PET Diploma
4	
3	Fed. VET Certificate
2	Fed. VET Diploma
1	

1.5 Subsidies

Awarding bodies responsible for each qualification may apply to the SERI for a subsidy to cover the costs of preparing an NQF level proposal. This subsidy will be granted in the form of a lump sum payment of CHF 3,600 for each assigned qualification. This lump sum will cover all of the work described in these guidelines: i.e. assignment of the qualification and preparation of the corresponding certificate supplement or diploma supplement.

If an additional certificate supplement is needed for a given VET qualification that is unrelated to NQF assignment (i.e. option only available for fields of study and branches), then the awarding body responsible for each qualification may apply for a lump sum subsidy of CHF 200 per additional certificate supplement.

Subsidies must be applied for in relation to the NQF level proposal (see Step 1). Payment of the subsidy will be made only after the NQF level proposal has been submitted in accordance with Steps 2-6 and after the SERI has checked the proposal for completeness.

If the work to be done is unusually extensive, then the awarding body may apply to the SERI for standard project funding.

TEIL II: PREPARING A PROPOSAL

This portion of the guidelines describes in detail the necessary steps to be followed when submitting an NQF level proposal for the NQF VPET:

- Step 1: Schedule an appointment
- Step 2: Prepare an overview of all qualifications the awarding body is responsible for
- Step 3: Prepare a summary of professional competences for occupation/profession
- Step 4: Assign a qualification to an NQF level
- Step 5: Draft a certificate supplement (VET) or diploma supplement (PET)
- Step 6: Submit an NQF level proposal

The entire process is presented in a chart in Chapter 3.1.

The following **documents** are needed in order to prepare the proposal:

- The *NQF assignment request form*
- The *NQF level proposal for the qualification*
- The *overview of qualifications the awarding body is responsible for* template
- The *professional competences grid* based on NQF VPET
- The templates for certificate supplements and diploma supplements

These documents may be downloaded here: www.nqr-berufsbildung.ch.

Step 1: Schedule an appointment

The volume of NQF assignment requests will be managed through a ticketing system. Awarding bodies responsible for each qualification must submit an NQF assignment request form for the qualifications to be assigned, indicating the date when they intend to submit their NQF level proposal. NQF assignment request forms will be handled on a first-come, first-served basis.

Check the calendar on the www.nqr-berufsbildung.ch website to see available dates.

The SERI will check to see whether the NQF assignment request form includes all of the qualifications the awarding body is responsible for and will decide when the appointment can be scheduled. The awarding body will receive confirmation of the appointment and the corresponding date will appear as booked in the Web calendar. The Web calendar also shows when NQF level proposals will be submitted for which qualifications. This makes it possible for third parties to ascertain which awarding bodies will be submitting these NQF level proposals and when.

Step 2: Prepare an overview of all qualifications the awarding body is responsible for

In order to be able to assign an individual qualification to an NQF level, it is important to clarify its position in relation to similar qualifications within the branch. The awarding body therefore needs to prepare a table showing all the qualifications it is responsible for and how they relate to one another. The overview of all qualifications the awarding body is responsible for template can be found in the appendices of the present Guidelines. **Only one overview per awarding body must be drafted.**

This table should include not only the qualifications the awarding body is responsible for in the narrower sense, but also related qualifications so that it is possible to gain an overview of the occupational field (e.g. VET and PET qualifications in related branches) as well as higher education qualifications (e.g. continuing education and training qualifications issued by Swiss universities of applied sciences) and adult education (non-formal learning).

Example ICT Berufsbildung Schweiz:

Level	Qualification responsible for	NQF*	Other related qualifications
Two-year VET programme for Federal VET Certificate	<ul style="list-style-type: none"> Federal VET Certificate in Information Technology 	?	
Three-year or four-year VET programme for Federal VET Diploma	<ul style="list-style-type: none"> Federal VET Diploma in Information Technology Federal VET Diploma in Mediamatics 	?	<ul style="list-style-type: none"> Federal VET Diploma in Electronics Engineering Federal VET Diploma in Interactive Media Design Federal VET Diploma in Desktop Publishing
Examination for Federal PET Diploma	<ul style="list-style-type: none"> Federal PET Diploma in ICT Application Development Federal PET Diploma in ICT Systems and Networks Federal PET Diploma in Business Informatics Federal PET Diploma in Mediamatics 	?	
Examination for Advanced Federal PET Diploma	<ul style="list-style-type: none"> Advanced Federal PET Diploma in ICT Management 	?	<ul style="list-style-type: none"> Advanced Federal PET Diploma in Web Project Management
Federally recognised professional college degree	<ul style="list-style-type: none"> Professional college degree in Information and Communication Technologies 	?	<ul style="list-style-type: none"> Professional college degree in Communication

* Enter this information as soon as Step 4 has been completed.

Step 3: Prepare an overview of professional competences

In Step 4, the professional competences associated with the qualification are compared with those described in the various NQF VPET levels. The qualification is then assigned to the corresponding level. In order to enable this comparison, it is important that the professional competences for that qualification be listed in table format in the basic reference documents.

In the best-case scenario, the basic documents already contain a table providing an overview of professional competences.

Example: overview of professional competences

Areas of professional competences		Professional competences					
		1	2	3	4	5	6
A	Area of professional competences	Professional competence	Professional competence	Professional competence	Professional competence	Professional competence	
B	Area of professional competences	Professional competence	Professional competence	Professional competence	Professional competence	Professional competence	
C	Area of professional competences	Professional competence	Professional competence	Professional competence	Professional competence		
D	Area of professional competences	Professional competence	Professional competence	Professional competence	Professional competence	Professional competence	Professional competence
E	Area of professional competences	Professional competence	Professional competence	Professional competence			
F	Area of professional competences	Professional competence	Professional competence	Professional competence	Professional competence		

If the basic reference documents already include a table providing an overview of professional competences, then go directly to Step 4.

If the basic reference documents do not include an overview of professional competences, then the awarding body responsible for each qualification has various options::

1. For VET qualifications:

a.) The awarding body may prepare a **separate table** providing an overview of professional competences using the basic reference documents as reference (key objectives correspond to areas of professional competences, indicative targets correspond to professional competences), or

b.) If the basic reference documents cannot be used to prepare a separate table providing an overview of professional competences, then the qualification should be subjected to **revision** prior to NQF assignment.

2. For PET qualifications:

a.) a **separate table** providing an overview of professional competences will be drafted to assist the awarding body in the NQF assignment process. In this case, as in the case of a revision, pedagogical guidance is very strongly recommended; or

b.) the qualification will be subject to **revision**.

In all cases, the overview of professional competences prepared under Option 2 a.) must always refer to the competences described in the basic reference documents.

The procedure under Option 2 a.) is only recommended in exceptional cases. Previous experience has shown that preparing such a table of professional competences underscores the need for revision in many cases.

The minimum requirements for an overview of professional competences to facilitate assignment to the NQF VPET can be found in Annex III of these Guidelines.

Step 4: Assign a qualification to a level

In this step, the professional competences that must be acquired in order to obtain the qualification are compared with the competence descriptions contained in the NQF VPET. This allows individual competences associated with the qualification, and ultimately the qualification as a whole, to be assigned to a corresponding level.

In order to make comparison easier for awarding bodies, a grid of professional competences based on the NQF VPET⁵ has been drafted. This grid is comprised of the eight NQF VPET levels abstractly defined in the Ordinance on the National Qualifications Framework for VPET Qualifications and uses the terminology already used to describe Swiss VET and PET qualifications.

The grid is structured as follows:



- Individual levels are described in ascending order from left to right from level 1-8: as the area of expertise broadens, the tasks become more complex and require greater self-sufficiency and responsibility.
- The requirements of the higher levels include all of the requirements of the lower levels, even if they are no longer explicitly mentioned.
- The grey lines summarise professional competences of the individual level as concisely as possible.
- The coloured lines provide additional descriptions of individual components of a given professional competence (technical competence, methodological competence, social competence, personal competence).

Each professional competence of the qualification to be assigned is compared with the competences described in the grid of professional competences and assigned to a level.

Experience has shown that groups of two to four people is the ideal size for assigning a professional competence to a given level because results can be discussed.

The level to which the professional competence is assigned will be entered in the table prepared in Step 3. Only integers are assigned.

Example:

Areas of professional competences ↓		Professional competences →		
A	Area of professional competences 1 Manufacturing goods 	1.1 Purchasing, inspecting, laying and properly storing pipes in accordance with instructions 2	1.2 Installing, configuring and starting devices, machines and equipment 3	1.3 Monitoring ongoing production 2
B	Area of professional competences 2 Ensuring sustainability 	2.1 Ensuring occupational health and safety as well as operational safety 3	2.2 Ensuring environmental protection 3	

⁵ Available for download at www.nqr-berufsbildung.ch.

⁶ SR **412.105.1**

The level values of the professional competences are collectively summed up. The sum total is divided by the number of professional competences:⁷

In the example: $(2+3+2+3+3) / 5 = 2,6$

As a rule the proposed level for this qualification will consequently be level 3.

Special case:

If a given area of professional competences is more important than another for a given qualification, then it is possible to **weigh** the value attributed to that area of professional competences. The weighting must match the one indicated for the competences in the basic reference documents (e.g. weighting applied during the final examination). This weighting must be reasonably documented and justified.

Since assignment to the NQF is based on the professional competences of the qualification, the NQF level proposal cannot be determined on the basis of the level assigned to another qualification.

**The proposed level must be justified in the NQF level proposal.
This justification is based on the professional competences of the qualification and must be formulated in such a way as to be deemed plausible by someone who is not familiar with the day-to-day work of the qualification holder.
The weighting must also be reasonably justified.**

⁷ The method of calculation has been adapted from the first version of these guidelines based on experiences with the first NQF level proposals. In most level proposals the above method of calculation has already been used in any case. This method of calculation generates less rounding effects and moreover professional competences from areas of professional competences with only a few professional competences do not automatically get too much weight.

Step 5: Draft the certificate supplement (VET) or diploma supplement (PET)

The awarding body responsible for each qualification will also prepare a corresponding certificate supplement or diploma supplement for the qualification to be assigned. There are binding templates in electronic format that can be filled out. These can be found under www.nqr-berufsbildung.ch.

The document must be drafted in an official language of Switzerland (German, French or Italian). Once the SERI has given its approval, the SERI will then make the necessary arrangements to have the document translated in the other official languages as well as in English.

A certificate supplement is to be drafted for each VET qualification. Additional certificate supplements can be drafted for individual specialisms and branches, even if these have not been assigned separately. No certificate supplements are issued for priority subjects.

A diploma supplement is drafted for each PET qualification.

Step 6: Submit NQF level proposal

The NQF level proposal form is the core document in any NQF level proposal since it provides information about the qualification and NQF assignment process in a way that is clear to third parties.

The key element of each NQF level proposal is the justification of the proposed level under point 5 of the form.

The NQF level proposal must be signed by all presidents of the awarding bodies responsible for the qualification.

Each NQF level proposal contains:

- an overview of all qualifications the awarding body is responsible for (see Step 2)
- an NQF level proposal in the NQF VPET for each qualification
- an overview of professional competences showing the assigned levels (see Step 4) for each qualification
- a «blank» overview of professional competences (without assigned levels) for each qualification
- a certificate supplement or a diploma supplement for each qualification⁷

The NQF level proposal must be submitted both in hardcopy and electronic form.

⁸ In the case of fields of study and branches in VET, there may be several different certificate supplements.

PART III: AFTER PREPARING THE PROPOSAL

3.1 From NQF level proposal to publication of qualification level

Summary

The SERI will first check to ensure that NQF level proposals match formal criteria. The awarding bodies responsible for each qualification will be notified of the outcome of this formal check.

The SERI will forward NQF level proposals to the Swiss Federal Institute for Vocational Education and Training (SFIVET), which will perform a consistency check. The consistency check ensures that all qualifications are handled equally and that the NQF assignment remains coherent. The SFIVET will check NQF level proposals using the methodology set forth in the present Guidelines: The SFIVET will check whether the professional competences match the descriptions contained in the basic reference documents and whether the proposed level within the NQF VPET is plausible.

If the SFIVET feels that the awarding body's NQF level proposals are plausible, then it will forward the results of the consistency check to the SERI.

If there is a need for clarification, the SFIVET will contact the awarding body and attempt to reach a consensus. If this is not possible, the SFIVET will notify the SERI of the lack of agreement and the SERI will discuss the matter again with the awarding body.

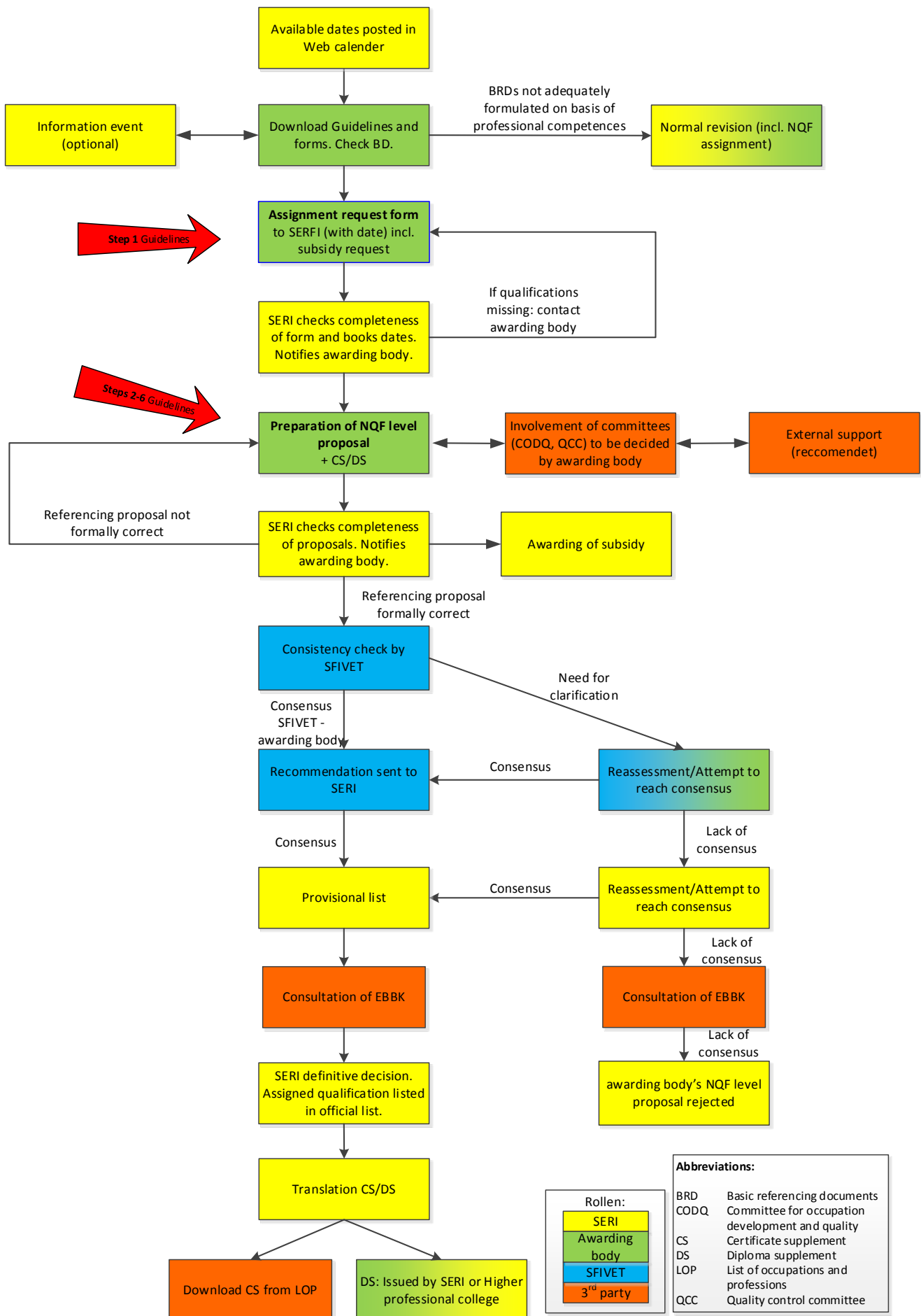
The main partners within the Swiss VPET system (i.e. the Confederation, the cantons and professional organisations) will be involved in the process through the Federal Commission for Vocational and Professional Education and Training (EBBK).

The SERI will make the definitive allocation decision. If the SERI and the awarding body responsible for the qualification are unable to reach a consensus, then the awarding body's NQF level proposal will be rejected.

The SERI will maintain a list of assigned VET and PET qualifications under Art. 8 of the Ordinance on the National Qualifications Framework for VPET Qualifications⁹, making the assigned levels binding.

⁹ SR 412.105.1

Assigning qualifications to a level in the NQF VPET



3.2 Timeframe

The list of qualifications assigned to NQF VPET is updated twice yearly.

Generally speaking, this means:

NQF level proposals submitted by 1 July: assignment published on 1 January.

NQF level proposals submitted by 1 January: assignment published on 1 July.

The awarding body responsible for each qualification will receive feedback from SERI both after formal verification and after the consistency check.

3.3 Issuance of certificate supplements and diploma supplements

Certificate supplements will be posted online in the list of assigned occupations and professions.⁹ Interested parties may download the certificate supplements in German, French, Italian and English and print them out themselves. Certificate supplements are only valid in combination with the original VET qualification.

Diploma supplements, in contrast, are issued with the corresponding PET qualification:

- Diploma supplements for professional college degrees and those completing training as vocational school teachers, apprenticeship trainers, professional college teachers or examiners are issued by the training provider.
- Diploma supplements for the Federal PET Diploma and Advanced Federal PET Diploma (which are issued to those who have obtained a passing grade on the corresponding federal examination) as well as other qualifications obtained prior to commencement of the Ordinance¹⁰ are issued by the State Secretariat for Education, Research and Innovation (SERI).

3.4 Subsequent issuance of diploma supplements

Art. 11 of the Ordinance on the National Qualifications Framework for VPET Qualifications regulates issuance of diploma supplements for qualifications that were issued before NQF assignment took place::

2 In order to obtain a diploma supplement, the holder of the PET qualification must be entitled to use the corresponding protected title and:

- a. no substantial changes have been made to the basic documents since the PET qualification was issued; or
- b. if substantial changes have been made to the basic documents since the PET qualification was issued, the qualification holder has gained at least five years of work experience.

If the above conditions apply, then holders of PET qualifications may request a diploma supplement upon payment of CHF 150.– Additional information regarding the procedure can be found here: www.nqr-berufsbildung.ch.

¹⁰ <http://www.sbfi.admin.ch/bvz>

¹¹ SR 412.105.1

ANNEXES

All auxiliary materials, templates and forms may be downloaded here: www.nqr-berufsbildung.ch

Annex I Certificate supplement template

Annex II Diploma supplement template

Annex III Minimum requirements for a separate overview of professional competences

Please use the .pdf forms from www.nqr-berufsbildung.ch
The necessary information can be found in the basic reference documents for the corresponding qualification. [Blue: instructions on how to fill out the textbox.](#)

1. Title of the qualification (in the original language)

Enter specialism if it has its own VET/PET identifier.

2. Translated title of the qualification

Federal VET Diploma in xxx
Federal VET Certificate in xxx
Specialism: xxx

English title based on current rules. Translated title of all content contained in 1. Specialisation (see specialism under 1.)

3. Profile of skills and competences

Answer the question: **What is the qualification holder able to do?**
Describe work situations, priority subjects and the main professional competences that learners acquire by the time they complete their training.
This description may be used when preparing the VET ordinance, training plan and competence profile for the VET programme.

4. Range of occupations accessible to the holder of the qualification

Answer the question: **Where can the qualification holder work?**
Areas of activity in which the qualification holder may work. This description is like a job profile.
This description may be used when preparing the VET ordinance, training plan and competence profile for the VET programme.

5. Official basis of the qualification

5.1 Name and status of the body awarding the qualification (professional organisation)
[Professional organisation, sponsor \(Name, complete address, URL, tel. no., e-mail address\)](#)

5.2 Name and status of the national authority responsible for issuing the qualification

State Secretariat for Education, Research and Innovation SERI, Einsteinstrasse 2, CH-3003 Bern,
www.sbf.admin.ch

5.3 Level of the qualification (national or international)

National Qualifications Framework for the VPET system: X
European Qualifications Framework: X
ISCED: 3

5.4 Grading scale/Pass requirements

6 = Very good	3 = Unsatisfactory
5 = Good	2 = Poor
4 = Satisfactory	1 = Unusable

Minimum passing grade: 4

5.5 Access to next level of education/training (optional)

Answer the question: **what subsequent training options are open to the qualification holder?**

Indicate whether the qualification provides access to the next highest level of training and how this is called. Also indicate that holders of Federal VET Diploma who have also passed the Federal Vocational Baccalaureate examination may enroll in a Swiss university of applied sciences (UAS) without an entrance examination.

5.6 International agreements (optional)

Answer the question: **are there any international agreements? Is the occupation regulated?** Indicate whether there is an international agreement (on mutual recognition, equivalency of competences). This is particularly the case for regulated occupations

5.7 Legal basis of the qualification

SERI Ordinance on Vocational Education and Training xxx dated dd.mm.yyyy. (VET identifier: xxx)

Ordinance of 27 August 2014 on the National Qualifications Framework for the VPET System (SR 412.105.1)

6. Officially recognised ways of acquiring the qualification

VET programmes for the *Federal VET Diploma/Certificate in xxx* last 2 / 3 or 4 years. Training content is usually distributed across two different learning locations: classroom instruction at a vocational school and work-based training at a host company. However, depending on the VET programme, learners will also attend branch courses at a branch training centre. Professional competences required for the given occupation are decided by the sponsor of the VET programme.

- Host companies provide learners with practical skills associated with the occupation. Learners usually work an average of xx days per week.
- Vocational schools provide classroom instruction in vocational subjects and subjects falling under the category of language, communication and society (LCS). Learners usually attend classes an average of xx day(s) per week; total number of lessons: xx.
- Branch training centres provide learners with additional skills that are intended to complement classroom instruction and work-based training, total duration of branch courses xx days.

The qualification procedure and final examination includes the following:

- Practical project covering xx hours
- (Written and/or verbal) testing of knowledge gained from vocational instruction covering xx hours
- Testing of knowledge gained from instruction in language, communication and society (LCS)
- *other areas of competence*

The calculation of the overall grade takes into account the grades obtained for individual areas of competence and the grades obtained from classroom instruction at the vocational school [during branch courses] [[and during work-based training at the host company].

Other equivalent qualification procedures are possible.

7. Additional information

optional

Issued by: National reference point: State Secretariat for Education, Research and Innovation, SERI,
www.sbf.admin.ch

ANNEX II:



DIPLOMA SUPPLEMENT

With instructions on how to fill it out

Draft

Please use the .pdf forms from www.nqr-berufsbildung.ch
The necessary information can be found in the basic reference documents for the corresponding qualification. **Blue: instructions on how to fill out the textbox.**

1. Information identifying the holder of the qualification

1.1 Family name(s)	Muster
1.2 First name(s)	Max
1.3 Date of birth	08.08.1990
1.4 Student number	1234-567-89

2. Information identifying the qualification

2.1 Name of qualification and awarded title

Title in a national language

English translation of title

2.2 Main field(s) of study for the qualification

Training in the field of XXX with specialisation in XXX

2.3 Name of institution awarding qualification

State Secretariat for Education, Research and Innovation SERI, Einsteinstrasse 2, CH-3003 Bern,
www.seri.admin.ch

2.4 Name of institution administering the qualification

Awarding body (Name, complete address, URL, tel. no., e-mail address)

2.5 Language(s) of instruction/examination

Language(s)

3. Information on the level of the qualification

3.1 Level of qualification

National Qualifications Framework for the VPET System: Level ?

European Qualifications Framework: Level ?

Tertiary-level qualification (professional education and training)

(see [point 8](#). Information on the national education system)

3.2 Length of programme

The duration of training is not legally regulated and may vary.

Answer the question: What pathway does one need to take in order to obtain this qualification? Specify whether the qualification can be obtained by other means (pathways, distribution of learning content across different learning locations, recognition of prior learning, etc).

For professional colleges: indicate duration of training.

3.3 Access requirements

*In order to take the federal examination for this qualification, candidates must meet the following criteria:
Federal VET Diploma in xx and xx years of work experience.*

Specify the requirements for the corresponding level of training (education level, type of selection, entrance examination, preparatory training, work experience, etc.)

Completion of compulsory education, traineeship, etc.

4. Information on the contents and results gained

4.1 Mode of study

Federal examination (for Federal PET Diploma, for Advanced Federal PET Diploma) / Structured studies (professional college) (Select from dropdown menu)

4.2 Qualification requirements

*Answer the question: **What is the qualification holder able to do?***

When answering this question, you can draw inspiration from the job profile.

Activity profile: Precise description of the main professional competences acquired by the person by the time the qualification is issued. Detailed information can be provided in field 4.3.

4.3 Qualification details

Brief description of training content, description of field of studies.

4.4 Grading scheme, grade distribution guidance

The presence of a *Federal PET Diploma or an Advanced Federal PET Diploma* is proof that the candidate has obtained the corresponding qualification.

4.5 Overall classification

The presence of a *Federal PET Diploma or an Advanced Federal PET Diploma* is proof that the candidate has obtained the corresponding qualification.

5. Information on the function of the qualification

5.1 Access to further levels of training

Indicate whether the qualification provides access to the next highest level of training and how this is called.

5.2 Professional status

The qualification entitles the holder to use the legally protected title "xxx" / "xxx".

*Answer the question: **Where can the qualification holder work?***

Describe the areas of activity in which the qualification holder may work (optional), whether it is a regulated profession subject to directives on the recognition of foreign qualifications, whether there are any international agreements (on mutual recognition, equivalency of qualifications).

6. Additional information

6.1 Additional information

optional

6.2 Additional information sources

Additional information (including a description of the national education system) can be found here:

www.seri.admin.ch, www.berufsberatung.ch, www.bfs.admin.ch, and

www.URLprofessionalorganisation.ch

7. Certification of the supplement

This diploma supplement refers to the following original documents:

- Ordinance of 1 October 2014 on the National Qualifications Framework for the Vocational and Professional Education and Training System

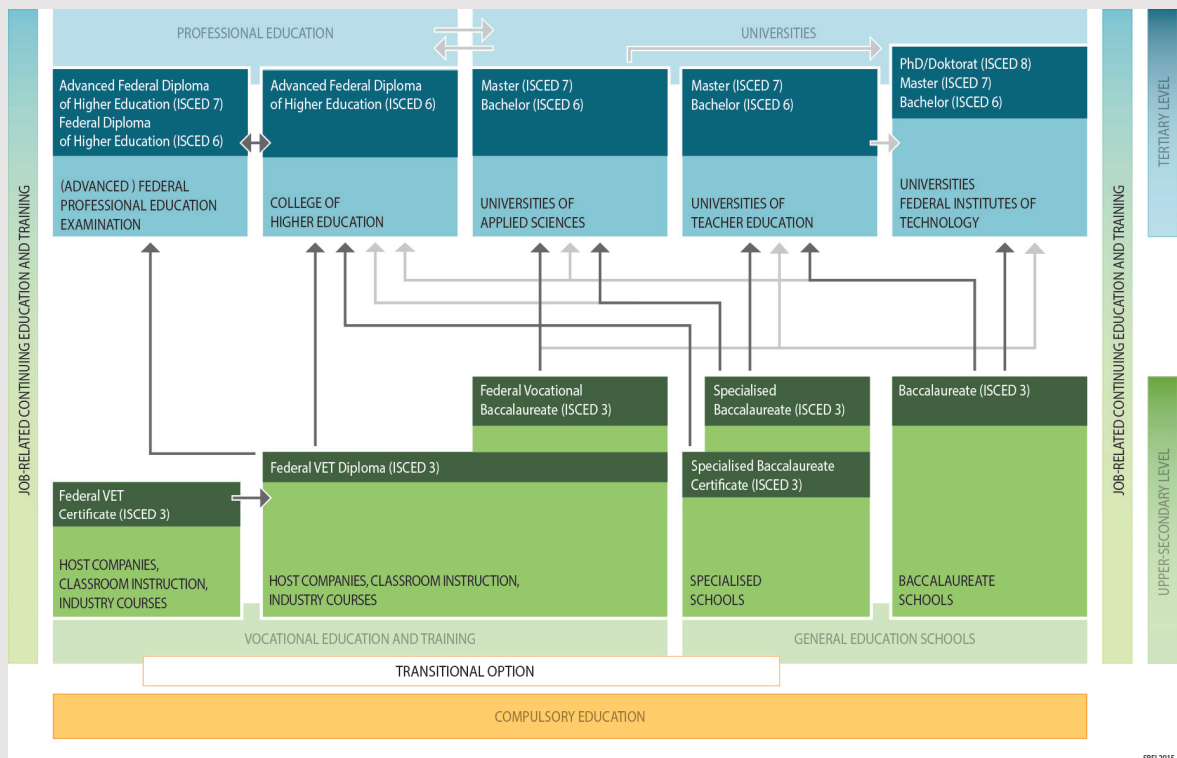
Examination regulations/core syllabus: Title, profession no., version, (entry in the register under Art. 43 VPETA

(Signature SERI)

Date of issue of diploma supplement: (automatically filled in)

Issued by: National reference point: State Secretariat for Education, Research and Innovation (SERI),
www.seri.admin.ch

8. Information on the national education system



Tertiary-level professional education

In Switzerland, tertiary-level education is divided into two sectors: the higher university sector and the professional education sector. There are two main pathways to tertiary-level professional education qualifications: preparation for a federal examination for the Federal Diploma of Higher Education or the Advanced Federal Diploma of Higher Education; and attendance of a College of Higher Education leading to issuance of a federally recognised Advanced Diploma of Higher Education. Access to the professional education sector is open to holders of upper-secondary level VET qualifications who have gained many years of work experience.

Professional education is highly practical in nature and consistently geared to the needs of the labour market. Professional organisations establish training content and ensure the quality of training programmes and examinations. Applied learning is encouraged as it enables new expertise to be quickly implemented and ensures a rapid rate of innovation. Holders of tertiary-level professional education qualifications are highly skilled workers who are able to handle challenging tasks as well as managers taking on a high level of responsibility. Holders of professional education qualifications often hold executive positions and manage their own company.

Upper-secondary level vocational education and training (VET)

State-regulated vocational education and training (VET) is the standard pathway leading to tertiary-level professional education. The Swiss VET sector comprises two-year VET programmes for the Federal VET Certificate as well as three- and four-year VET programmes for the Federal VET Diploma. Swiss VET programmes consistently combine theory and practice and provide learners with the knowledge and skills needed to work in the chosen occupation with little need for outside supervision. In addition to technical expertise, learners acquire methodological, social and personal competences. Most Swiss VET programmes are of the dual-track variety, meaning that training content is distributed across two main learning locations (vocational schools, which handle classroom instruction, and host companies, which handle apprenticeship training) and in some cases also a third learning location (branch training centres, which provide learners with training content not already covered by the first two training locations). There are also VET programmes where learners undergo full-time classroom instruction at a vocational school. In both cases, it is very common for holders of VET qualifications to be hired directly after graduation. Once holders of VET qualifications have gained extensive work experience, they may go on to pursue tertiary-level professional education and training.

Swiss education system

The two pillars of the Swiss education system are general education and vocational education and training and professional education, both of which span upper-secondary and tertiary level. While it is possible to switch between these two pillars at any time and at any level, in some cases, certain conditions apply. Generally speaking, the Swiss education system is highly permeable in this manner.

ANNEX III:

Minimum requirements

For separate overviews of professional competences to be issued for assignment to NQF VPET

Below is a list of the minimum requirements that must be met when preparing overviews of professional competences in order to ensure that these tables can be used in the NQF assignment process as well as in the consistency check. Non-compliance with these minimum requirements results in rejection of the NQF level proposal. Newly prepared overviews of professional competences can be submitted to SERI for a preliminary check before professional organisations use them as a basis for an NQF level proposal. Please contact the NQF VPET Unit of SERI on this matter.

1. Orientation towards professional competences

The main professional competences needed to obtain the qualification should be described, not the learning processes or the content of classroom instruction leading to this qualification.

2. Basic reference documents

Professional competences must be described in the basic reference documents.

3. Description of professional competences

Descriptions of professional competences should be short and precise, enabling one to see how the learner handles specific work situations that are typically encountered in the given occupation or profession.

4. Verifiability

It must be possible to establish, observe, measure, assess and verify the described competences.

5. Individual listing and levels of difficulty

Each competence must be listed individually and if possible described using an action verb.

6. General clarity

As a rule, descriptions of professional competences should be easy enough for laypersons to understand. Any portions that would be difficult for laypersons to understand should include cross-references to additional information in the basic reference documents.

7. Form

The structure has already been established in the .xls template provided: Overview of professional competences. This template can be downloaded from: www.nqr-berufsbildung.ch.

8. Volume

In order for the table to be able to perform its function of overview, the following numbers should be respected: number of areas of professional competences: 4-10; number of professional competences per area: 3-10; altogether 12-50 professional competences.

9. Traceability

The design of the overview has to be made in a transparent way; notably the formulations, selection and grouping of professional competences and of the areas of professional competences have to be traceable. The respective references are indicated directly in the overview or in the form of further written documentation.

¹² The requirements 8 and 9 have been added based on experiences made with the first NQF level proposals compared to the first version of the guidelines.

6.5 Grid of professional competences based on NQF VPET

NQFVPET	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8	
Professional competence	Carries out simple tasks in a manageable, stable and structured area of activity. Performs tasks under supervision.	Properly carries out fundamental tasks in a manageable, stable and structured area of activity. Performs tasks largely under supervision.	Carries out technical tasks without supervision in a still manageable and partially less structured area of activity.	Recognises and handles technical tasks in a comprehensive, constantly changing area of activity.	Recognises and analyses comprehensive technical tasks in a complex, specialised, and constantly changing area of activity.	Recognises, analyses and assesses comprehensive technical tasks, problems and processes in a broader working context characterised by complexity and frequent changes.	Works with new complex tasks and problems and takes personal responsibility for managing processes within a strategic working context characterised by frequent and unforeseeable changes.	Develops innovative solutions and processes or gathers research knowledge in a complex area of activity characterised by novel and highly challenging problems.	
Technical competence	Technical expertise	Possesses simple knowledge of one's own work.	Possesses fundamental technical expertise in one's own work.	Possesses broader technical expertise in one's area of work.	Possesses in-depth technical expertise in one's area of work. Is able to acquire specific technical knowledge on his other own..	Possesses comprehensive technical expertise of one's own areas of work and those of the most important related occupations.	Possesses comprehensive and specialised technical expertise in all important areas of work. Is able to acquire interdisciplinary knowledge on his or her own.	Possesses solid and strategic technical expertise in all important areas of work.	
	Language, Communication and Society (LCS)	Elementary LCS.	Fundamental LCS.	Fundamental LCS.	In-depth LCS.	In-depth LCS.	Broad LCS.	Comprehensive LCS.	
	Recognises correlations	Has a basic understanding of one's own area of activity.	Understands correlations in one's own area of activity.	Understands correlations in one's area of work.	Understands correlations in one's area of work, in thematically related fields and in the branch.	Understands complex correlations in and outside the branch.	Understands complex correlations in the branch and is able to draw correlations with related fields	Understands complex and strategic correlations in the branch and is able to draw interdisciplinary correlations with other fields.	Understands complex and strategic correlations both within and outside the branch.
Methodological competence	Handling tasks and problems	Carries out simple and standardised tasks under supervision.	Carries out fundamental and standardised tasks in accordance with established rules.	Carries out fundamental tasks without supervision and solves simple problems using known strategies.	Plans and carries out tasks and solves problems using known strategies.	Analyses and handles comprehensive technical tasks in very different situations and solves problems using his/her own strategies.	Recognises, analyses and assesses frequently changing, complex tasks and problems using innovative strategies.	Analyses and solves complex, challenging tasks in an interdisciplinary field.	Analyses and assesses highly challenging issues from an interdisciplinary perspective. Makes prognoses and recommendations.
	Using work techniques, methods and tools	Uses simple tools and instruments.	Uses simple tools and instruments that are specific to the occupation.	Uses tools and instruments that are specific to the occupation.	Uses tools and instruments that are specific to the occupation and recognises alternative ways of handling tasks.	Uses tools and instruments from other areas of activity in a targeted and suitable manner for the task at hand.	Develops existing tools, instruments and methods further.	Develops new work methods and strategies.	Develops innovative approaches and strategies to find solutions.
	Assessing results	-	Assesses results on the basis of pre-existing benchmarks.	Assesses results on the basis of mostly pre-existing benchmarks.	Assesses results on the basis of technical criteria.	Establishes technical criteria and then assesses results on this basis.	Analyses and assesses results on the basis of complex criteria.	Analyses, assesses and develops results on the basis of complex criteria.	Analyses, assesses and develops innovative approaches and strategies to find solutions.

Social competence	Working with others and performing managerial tasks	Works with others.	Works with others in a team.	Works with others in a team and actively contributes.	Supervises routine tasks performed by others. Helps to plan and shape work processes.	Provides instructions to others on how to perform routine tasks. Organises work processes in teams. Assumes technical responsibility for the team.	Manages groups and teams of experts. Assumes responsibility for occupational development of workers.	Manages teams of experts with complex, interdisciplinary and strategic tasks. Provides targeted support to workers in their development of technical expertise.	Manages teams of experts involved in complex, interdisciplinary and innovative tasks and issues. Provides targeted and long-term support to workers in their development of technical expertise.
	Communicating with others	Interacts with others both verbally and in writing.	Conveys simple information in a suitable manner and accepts other points of view.	Communicates with others in accordance with the situation at hand and accepts criticism.	Communicates with others in accordance with the situation at hand and is able to handle criticism constructively and give constructive criticism.	Communicates in a way that is suited to the listener. Actively tries to find constructive solutions whenever conflicts arise. Presents information from one's field of expertise.	Proactively handles conflicts and searches for constructive solutions.	Endures situations of tension and looks for constructive solutions. Presents complex information from one's field of expertise.	Develops constructive solutions in response to various situations of tension.
Personal competence	Taking responsibility	Works under direct supervision.	Works for the most part on his/her own in accordance with instructions.	Works on his/her own and takes responsibility for his/her own work.	Plans and handles tasks on his/her own and takes responsibility for his/her own work.	Takes responsibility in a continuously changing work context.	Carries out complex activities and takes responsibility for decision-making in a continuously changing work context.	Manages and plans activities in complex and unpredictable work contexts.	Manages and plans activities in complex and innovative work contexts.
	Dealing with change	Works in a highly structured and stable area of activity.	Works in a manageable, stable and structured area of activity.	Works in a manageable and partly structured area of activity.	Works in a continuously changing area of activity. Handles change in an open and positive manner.	Handles changing demands	Works in a non-predictable work context.	Develops new strategic approaches aimed at developing the company further and improving work processes.	Develops strategic and innovative approaches.
	Reflecting on one's own actions	-	Analyses his/her own actions.	Assesses his/her own actions.	Assesses and justifies processes and results.	Assesses, justifies and improves processes and results.	Analyses, assesses and improves processes.	Analyses, assesses and improves processes from a strategic standpoint under his/her own responsibility.	Compares, assesses and improves innovative approaches.

6.6 Professional competence models

In Switzerland, two models are commonly used to structure competence oriented documents – the competence-oriented model and the competences-and-resources model. These models determine how professional competences are described and structured in training plans. Either model can be used, but it should be used consistently throughout.

These concepts can also be seen in the grid of professional competences based on NQF VPET, which is being used in order to classify qualifications in the NQF VPET. This grid helps national stakeholders translate between national and international terminology. This makes life easier for the awarding bodies, since they are familiar with this type of vocabulary and concepts from having prepared the professional competences model. For this reason, both sets of terminology will continue to be used in the future. In other words, the existing terminology of the professional competences grid will be used nationally, and the terms will not be harmonised with those used in the EQF. However, the NQF VPET descriptors and associated taxonomy model will continue to be worded using current international terminology, since this simplifies classification and comparison with the EQF.

6.6.1 The competence-oriented model

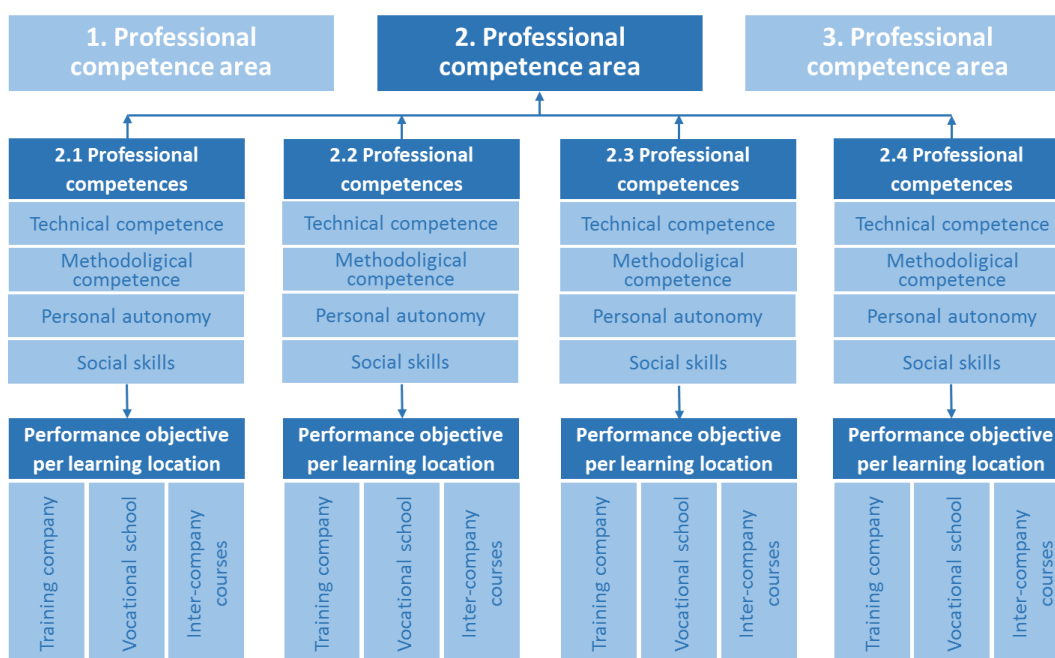


Figure 15: Training plan based on the competence-oriented model

The professional competences that students need to acquire are detailed in the training plan using the competence-oriented model. They are depicted in the form of professional competence areas, professional competences and performance objectives per learning location (see figure above). Professional competences include technical competence, methodological competence, personal autonomy and social skills. Technical competence enables professional people independently and competently to carry out technical tasks and resolve technical problems in their vocational field, to face the changing challenges of their profession and overcome them. Methodological competence helps professionals organise their work properly – tasks are tackled in an orderly, planned fashion, tools and equipment are used wisely and problems resolved purposefully. Social skills includes all those personal skills and attitudes that people employ in their interactions with others, in other words, aspects such as team spirit, motivation and enthusiasm for collaborating with other people. These other people may be customers, colleagues or superiors. The concept of personal autonomy denotes skills and attitudes through which people express their stance on work – for example, reliability, independence, ability to work under pressure, behaviour and propensity to learn.¹¹²

¹¹² SDBB, Glossary of Vocational and Professional Education and Training, 2012.

Example

The three-year Federal Diploma of Vocational Education and Training for Chefs can be used by way of example to clarify the process of describing learning outcomes in terms of professional competence. In the competence profile for the Federal Diploma of Vocational Education and Training for Chefs, professional competences are recorded in a tabular overview¹¹³ (Figure 16). This overview of professional competences summarises the requisite learning outcomes clearly and concisely. The areas of competence are listed in the left-hand column and the associated competences are listed horizontally for each area. The number assigned to each competence uniquely identifies it; this number does not imply any type of hierarchical ranking.

¹¹³ Competence profile for Chefs, page 2, <http://www.sbf.admin.ch/bvz/grundbildung/index.html?detail=1&typ=EFZ&item=1142&lang=de>, 06.01.2015).

Areas of professional competences		Professional competences							
		1	2	3	4	5	6	7	8
A	1. Preparing and presenting meals and dishes and using foreign-language terms/culinary terminology	1.1 Purchasing, correctly storing and properly preparing plant-based food based on its features, quality and possible uses.	1.2 Purchasing, correctly storing and properly preparing animal-based food based on its features, quality and possible uses.	1.3 Purchasing, correctly storing and properly preparing food of animal origin based on its features, quality and possible uses.	1.4 Purchasing, correctly storing and preparing other foodstuffs/products in a proper and appropriate manner based on their features, degree of convenience, quality and possible uses.	1.5 Nutrition: Preparing healthy meals properly using cooking methods that preserve nutrients, in accordance with customers' wishes.	1.6 Cooking processes: Efficiently preparing products at various temperatures, in different surroundings and using different cooking methods, and justifying the choice of cooking method to customers.	1.7 Serving / planning / presentation: Serving, planning and presenting dishes attractively.	1.8 Foreign languages: Using specialist foreign-language terms for goods and the creation, preparation and presentation of dishes.
B	2 Helping to create operational procedures	2.1 Organisation: Applying the principles of operational organisation at interfaces.	2.2 Personal work processes: Carrying out mise en place and other tasks efficiently and in accordance with guidelines.	2.3 Personal work processes: Carrying out mise en place and other tasks efficiently and in accordance with guidelines.	2.4 Understanding and using technology: Using equipment properly and professionally.				
C	3 Acting in the interests of the business, customers and the environment	3.1 Industry and customers: Considering the corporate mission statement and philosophy at work.	3.2 Calculations: Producing calculations for goods, work and dish costs.	3.3 Thinking and acting sustainably: Taking account of professional ethics at work.					
D	4 Occupational health and safety, environmental protection and fire prevention	4.1 Occupational health and safety: Recognising hazards in the workplace and taking precautionary measures.	4.2 Environmental protection in the workplace: Protecting the environment while working in the kitchen by taking suitable measures.	4.3 Using resources ecologically: Using resources sparingly and efficiently, optimising work processes.	4.4 Fire prevention: Observing fire prevention principles and regulations at work.				
E	5 Applying hygiene measures and maintaining value	5.1 Personal and occupational hygiene: Assessing areas for action in the kitchen and implementing measures.	5.2 Hygiene policy: Following a policy of occupational self-monitoring at work.	5.3 Maintaining value: Maintaining and servicing facilities, equipment and materials.					

Figure 16: Overview of vocational competence for the Federal Diploma of Vocational Education and Training for Chefs

In area of competence 1 "Preparing and presenting meals and dishes and using foreign-language terms/culinary terminology", the following eight professional competences are described.

- Competence 1.1 "Purchasing, correctly storing and properly preparing *plant-based food* based on its features, quality and possible uses."
- Competence 1.2 "Purchasing, correctly storing and properly preparing *animal-based food* based on its features, quality and possible uses."
- Competence 1.3 "Purchasing, correctly storing and properly preparing *food of animal origin* based on its features, quality and possible uses."
- Competence 1.4 "Purchasing, correctly storing and preparing *other foodstuffs/products* in a proper and appropriate manner based on their features, degree of convenience, quality and possible uses."
- Competence 1.5 "*Nutrition*: Preparing healthy meals properly using cooking methods that preserve nutrients, in accordance with customers' wishes."
- Competence 1.6 "*Cooking processes*: Efficiently preparing products at various temperatures, in different surroundings and using different cooking methods, and justifying the choice of cooking method to customers."
- Competence 1.7 "*Serving / planning / presentation*: Serving, planning and presenting dishes attractively."
- Competence 1.8 "*Foreign languages*: Using specialist foreign-language terms for goods and the creation, preparation and presentation of dishes."

In the training plan for the Federal Diploma of Vocational Education and Training for Chefs,¹¹⁴ all the professional competences listed in the vocational competence overview are described in detail. They are subdivided into:

- Technical competence
- Methodological competence
- Social skills and personal autonomy
- Key objectives, indicative targets and performance objectives for all three learning locations
- Assignment of performance objectives

The key objectives, indicative targets and performance objectives for all three learning locations reflect the professional competences listed in the overview in much greater detail. For example, field 1.1 in the overview is described as follows:

<p>1 Key objective - creating/preparing/presenting meals and dishes (=practical work) + foreign-language/specialist culinary terminology</p> <p>Creating and preparing meals and dishes properly is a core competence for cooks. Cooks therefore process products, i.e. food, to make ready-to-eat meals and dishes in a cost-effective, professional manner in line with market requirements. They are familiar with the usual methods and associated technology, they can describe them in a foreign language, and can use them properly and appropriately.</p>		
<p>1.1 Indicative target – plant-based food</p> <p>Cooks are aware of the importance of the characteristics, quality expectations and possible uses of plant-based foodstuffs. They purchase them in accordance with guidelines, store them taking account of their variety and quality, and prepare them properly for the cooking process.</p>		
<p>Performance objectives for vocational school</p>	<p>Performance objectives for training company</p>	<p>Performance objectives for inter-company courses</p>
<p>1.1.1 Grouping/origin Cooks can explain the grouping of plant-based food into vegetables,</p>		

¹¹⁴ Training plan for the Federal Diploma of Vocational Education and Training for Chefs: <http://www.sbf.admin.ch/bvz/grundbildung/index.html?detail=1&typ=EFZ&item=1142&lang=de>, 06.01.2015.

potatoes, cereals/legumes, fruit and fruit products, and fungi. They can name the origins and availability of the different foods, and describe common methods of cultivating them.		
1.1.2 Quality characteristics Cooks are able to explain the criteria for good quality. They can assess selected plant-based foods and ascertain their quality.	1.1.2 Quality characteristics I am able to evaluate quality differences and take suitable steps in the event of quality deficiencies. When doing so, I adhere to the guidelines on operational quality assurance and enhancement.	1.1.2 Quality characteristics Cooks are able to evaluate quality differences and take suitable steps in the event of quality deficiencies.
1.1.3 Goods receipt and storage Cooks can describe the steps and requirements for the proper goods receipt and storage of plant-based foods. When doing so, they highlight critical aspects of food legislation.	1.1.3 Goods receipt and storage I implement the provisions of food legislation during goods receipt and storage in my work area by means of self-monitoring.	1.1.3 Goods receipt and storage On external courses, cooks implement the provisions of food legislation during goods receipt and storage by means of self-monitoring.
1.1.4 Preparation Cooks can describe the steps required for the proper preparation of plant-based foods. They can indicate appropriate ways of cutting up different types of food. They can describe methods of waste disposal and ways of reusing offcuts.	1.1.4 Preparation I am able to prepare plant-based food using the three-stage process of washing, peeling and cutting. When doing so, I make proper use of appropriate cutting techniques and handle the food carefully. I dispose of waste efficiently in accordance with guidelines and re-use offcuts in the optimum manner.	1.1.4 Preparation Cooks use the three-stage process of washing, peeling and cutting when preparing plant-based food. When doing so, they make proper use of appropriate cutting techniques and handle the food carefully. They dispose of waste efficiently in accordance with guidelines and re-use offcuts in the optimum manner.

Indicative target 1.1 (Plant-based food) also includes:

Methodological competence

- Process-oriented, networked thoughts and actions
- Learning strategies

Social skills and personal autonomy

- Independent action
- Health-oriented working

6.6.2 The competences-and-resources model

The training plan describes the specific competences that students need to learn. These are depicted in the form of areas of competence, competences and the resources needed in order to successfully cope with situations (knowledge, skills/proficiencies and attitudes).

Each area of competence includes a certain number of competences corresponding to typical workplace situations. The model describes the behaviour expected of qualified professionals in such situations. Each competence incorporates the resources needed for successfully coping with the situation.

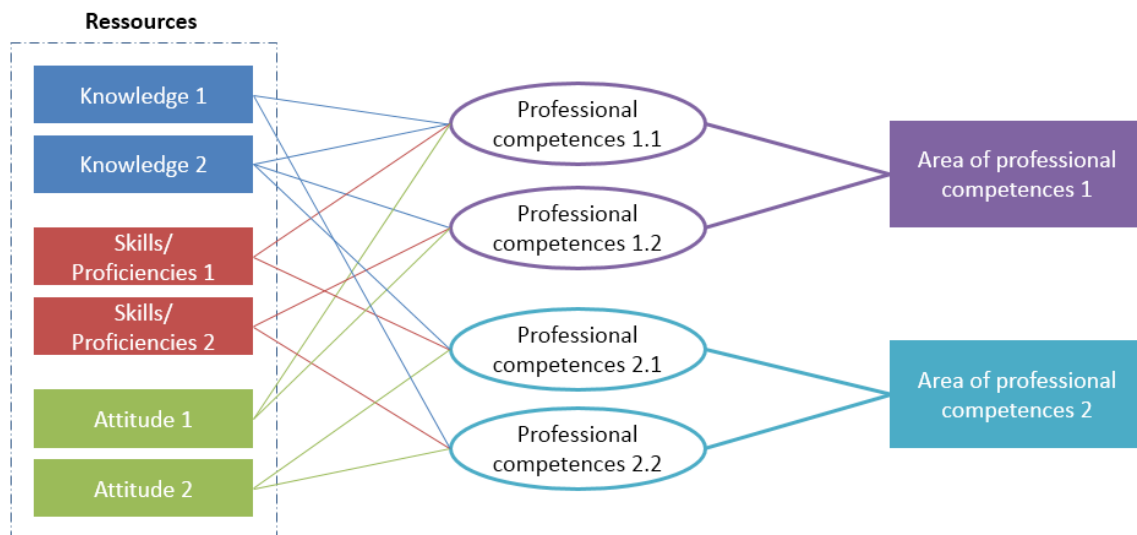


Figure 17: The competences-and-resources model

Example

The two-year Federal Certificate of Vocational Education and Training course for healthcare and social assistants can be used by way of example to clarify the process of describing learning outcomes in terms of competences. In the training plan for healthcare and social assistants, the professional competences are recorded in a tabular overview¹¹⁵ (Figure 18). This overview of professional competences summarises the requisite learning outcomes clearly and concisely.

The areas of competence are listed in the left-hand column and the associated competences are listed horizontally for each area. The number assigned to each competence uniquely identifies it; this number does not imply any type of hierarchical ranking.

In area of competence 1 "Assisting and supporting in healthcare and personal hygiene", the following seven professional competences are described.

Competence 1.1	"Helps clients to get dressed and undressed."
Competence 1.2	"Assists clients with their toileting needs."
Competence 1.3	"Helps clients with their personal hygiene."
Competence 1.4	"Helps clients with their medication/treatment."
Competence 1.5	"Assists in mobilising clients, transferring them and positioning them correctly."
Competence 1.6	"Carries out weight and height checks and monitors vital signs."
Competence 1.7	"Recognizes unusual situations and seeks help."

¹¹⁵ Training plan for healthcare and social assistants, page 4 <http://www.sbf.admin.ch/bvz/grundbildung/index.html?detail=1&typ=EFZ&item=1142&lang=de>, 06.01.2015.

Areas of professional competences		Professional competences							
		1	2	3	4	5	6	7	8
A	1. Assisting and supporting in healthcare and personal hygiene	1.1 Helps clients to get dressed and undressed	1.2 Assists clients with their toileting needs.	1.3 Helps clients with their personal hygiene.	1.4 Helps clients with their medication/treatment.	1.5 Assists in mobilising clients, transferring them and positioning them correctly.	1.6 Carries out weight and height checks and monitors vital signs.	1.7 Recognizes unusual situations and seeks help.	
B	2 Advising and supporting clients in their everyday activities	2.1 Helps clients follow a daily routine.	2.2 Helps to keep clients active.	2.3 Accompanies clients to appointments.	2.4 Helps clients to eat and drink.	2.5 Helps clients to prepare their breakfast and snacks.	2.6 Involves clients in what he/she is doing and is aware of interpersonal relationships.	2.7 Helps clients get ready for naps and bed.	2.8 Helps to care for the dying.
C	3 Helping around the home	3.1 Lays the table and clears away after meals.	3.2 Helps clients look after their homes, plants and animals.	3.3 Helps clients to shop for basic necessities.	3.4 Helps clients with their laundry washing.				
D	4 Observing and implementing hygiene and safety measures	4.1 Observes occupational safety and health protection regulations.	4.2 Adheres to hygiene guidelines. Disinfects instruments and surfaces.	4.3 Helps to keep living areas safe and suitable for clients, and assists in implementing accident prevention measures.					
E	5 Assisting in administration, logistics and work scheduling	5.1 Carries out simple administrative tasks with the aid of information technology tools.	5.2 Receives information and passes it on.	5.3 Cleans apparatus and furnishings and ensure they are ready for use.	5.4 Assists in managing materials and equipment.				
F	6 Developing and taking heed of professional roles and teamworking	6.1 Considers whether his/her resources are sufficient for a task and seeks help from trained staff if necessary.	6.2 Describes his/her own behaviour, evaluates it and draws conclusions from this on how to behave in future.	6.3 Works as part of a team, is familiar with the roles and responsibilities of team members.					

Figure 18: Overview of professional competences for the Federal Certificate of Vocational Education and Training for healthcare and social assistants

In the VET training plan for healthcare and social assistants¹¹⁶, all the competences listed in the overview of professional competences are described in detail in typical situations. For this purpose, there is a catalogue of situation descriptions containing specific competences and associated resources.

Interdisciplinary resources are listed first. These are resources that are needed not only in order to master specific individual competences, but also to master one or more entire competence area. These resources are known as interdisciplinary resources. For reasons of clarity, these interdisciplinary resources are not mentioned for each specific competence, but only in those parts of the training plan where they are particularly relevant. They relate to areas such as occupational hygiene and safety guidelines, and environmental and economic principles.

The catalogue then describes situations in which each competence area is detailed in a typical situation. Competence area 1.1, for example, is described as follows:

¹¹⁶ VET training plan for healthcare and social assistants <http://www.sbf.admin.ch/bvz/grundbildung/index.html?detail=1&typ=EFZ&item=1142&lang=de>, 22/04/2015.

Competence area 1 – assisting and supporting in healthcare and personal hygiene

Competence area	Assisting and supporting in healthcare and personal hygiene	1.1
Competence	Helps clients to get dressed and undressed.	
Typical situation	<p>Mr Joll suffered a stroke a year ago. Since then, his right arm has been paralysed. Mr Joll needs help getting dressed and undressed. Tilo Kranji, a Federal VET certificate healthcare and social assistant, has the job of helping Mr Joll take off his clothes and put on his pyjamas. Mr Joll sits on a chair and pulls impatiently at his cardigan, which has large buttons. Tilo Kranji eases the buttons a little way out of the button holes so that Mr Joll can then undo them the rest of the way by himself. He helps him take his left arm out of the cardigan, then Mr Joll can finish taking it off by himself. Before taking his vest off over his head, Mr Joll comments that this always catches in his hair and he really doesn't like that. Tilo Kranji is particularly careful and makes sure that he manages to remove it without it catching too much. Mr Joll praises him for this. To put on his pyjama top, Tilo Kranji lays it out on Mr Joll's lap so that he can first of all put his paralysed arm into the right sleeve and then get his healthy arm into the left sleeve. When removing his trousers, Mr Joll only needs help undoing the buttons. He can do everything else himself. Tilo Kranji supports him while he puts on his pyjama trousers. Mr Joll is grateful for this. Finally Tilo Kranji folds Mr Joll's clothes up and places them on the chair.</p>	
Context	<ul style="list-style-type: none"> • Helps with dressing and undressing depending on the physical, mental or intellectual impairment concerned • Assists in the choice of clean clothing that is appropriate for the time of year 	
Standards and regulations (quality criteria)	<ul style="list-style-type: none"> • Occupational hygiene guidelines • Care standards for dressing and undressing in the case of physical, mental and intellectual impairment • Clients appear well-groomed 	
External resources	<ul style="list-style-type: none"> • Clients' clothing • Aids for getting dressed and undressed 	
Knowledge	<ul style="list-style-type: none"> • Principles of providing support for dressing and undressing • Aids for getting dressed and undressed • Clothing appropriate for the time of year 	
Skills	<ul style="list-style-type: none"> • Keeps clients informed • Makes use of the clients' resources • Helps clients to get dressed and undressed • Makes appropriate use of aids for dressing and undressing • Ensures clothing is clean and appropriate for the time of year • Handles clients' clothes with care 	
Attitudes	<ul style="list-style-type: none"> • Is respectful • Takes account of clients' individual limitations • Is mindful of clients' autonomy and self-determination 	