



Attachment 3.5

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Country Synthesis Report Switzerland

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1 Country context

1.1 Economic context

The structure of the Swiss economy has gone through considerable changes in the past decades, which are typical of virtually all modern economies. Traditionally important industries such as farming, construction and engineering have declined, while most branches in the service sector continue to grow. SMEs (up to 249 employees) represent 99.8% of all businesses in Switzerland, and employ 83% of persons active in the private sector.¹ Trends show that the working population is aging, with the largest age group being the 40-54 year olds, while, until 2004, the age group of 25-39 year olds was the largest one.

In Switzerland the graduation rate at upper-secondary level stands almost at 95% (2012: 94.7%).² Whereof most often the vocational education and training pathway is generally being chosen over general education. The qualification profile of the (highest qualifications achieved) within the Swiss population is divided as follows:

- 12% of the population finished compulsory school on secondary level (ISCED-97: 2). They did not obtain a qualification at upper-secondary or tertiary level.
- 53% of the population choose the vocational and professional education and training pathway, finishing either with a VET qualification at upper-secondary level (39%, ISCED-97: 3B) or obtaining a PET qualification at tertiary-level (14%, ISCED-97: 5B).
- 35% of the population chose the general education pathway, finishing either with a baccalaurate (9%, ISCED-97: 3A) or continue to obtain a qualification in higher education qualification (26%, ISCED-97: 5A)³

Between 2005 and 2012, there has been a 13% increase in the number of jobs in all three economic sectors as a whole.⁴ The regions of Zurich and Geneva-Lausanne have shown the highest growth in terms of job creation.

The service sector accounts for 74.2% of total employment, whereas 22.2% of the population is employed in industry and business, and 3.6% in agriculture and forestry. Apprenticeship positions available in dual-track VET programmes reflect a similar distribution amongst the sectors. For example, in the year 2014-2015, only 5.2% of apprenticeship positions were in agriculture, while the vast majority remained in the service sector.⁵

1.2 Political and social context of the Apprenticeship System

The Swiss system of vocational and professional education and training (VPET) traces its roots back to the guild system where education and training was provided by businesses specialised in craftsmanship. The first vocational schools to combine theory and practice were the Watchmaking School in Geneva, founded in 1924, and the trade school in Bern, founded in 1928. These schools emerged from commercial activities and private initiative. Larger industrial companies would also play a pioneering role. In 1870, the Swiss technology corporation Sulzer created a school that would later provide inspiration for combined school/work-based VET programmes (also referred to as dual-track VET programmes) in Switzerland. At the time, the Sulzer School trained metalworkers and foundry men on two fronts: theoretical principles were taught in a classroom setting and applied afterwards during paid apprenticeships at the company. Other companies followed suit and in 1933, the first Federal Vocational Education and Training Act came into force. The combined school/work-based model was adopted for upper-secondary level VET programmes. Following this approach, private companies and public voca-

¹ Swiss Federal Statistical Office, 2012 (URL:

<http://www.bfs.admin.ch/bfs/portal/de/index/regionen/03/key/00/ind27.indicator.270107.2701.html?open=2710#2710>) [Retrieved: 22.06.2015]

² Swiss Federal Statistical Office, 2015: Statistics on Education. (URL: www.education-stat.admin.ch) [Retrieved: 18.09.2015]

³ Swiss Federal Statistical Office, 2015: SAKE. March 2015. (URL:

<http://www.bfs.admin.ch/bfs/portal/de/index/themen/15/01/key/blank/01.html>) [Retrieved: 18.09.2015]

⁴ Swiss Federal Statistical Office, 2015: Statistics on Education. (URL: www.education-stat.admin.ch) [Retrieved: 18.09.2015]

⁵ Apprenticeship Barometer – August 2014. (URL:

<http://www.sbf.admin.ch/berufsbildung/01587/01607/01608/index.html?lang=de>). [Retrieved: 18.09.2015] (not available in English)



tional schools began working closely together. In 2004, a new legislation was enacted, the Federal Vocational and Professional Education and Training Act (VPETA) based on the Federal Constitution (Art. 63, para. 1). As laid down in the Swiss Constitution, the Confederation and the cantons, within the scope of their powers, do not only jointly ensure the high quality and accessibility of the Swiss Education Area, but they additionally ensure that equal recognition of general and vocational courses of study is achieved in society. This paragraph was adopted by a popular vote in May 2006 by an overwhelming majority of the Swiss population. It shows that vocational and general education schools are both well respected options in the Swiss educational landscape for young people. VPETA covers all fields, including health care, social care and art (which were previously excluded from the scope of VET and PET). VPETA is very flexible and leaves room for various types of education and training models. The individual branches may therefore make targeted adjustments to their training plans whenever the need arises. As defined in the Federal Constitution, the cantons are responsible for enforcement of VPETA. Each canton has its own cantonal legislation.

Switzerland is a federalist country with 26 independent cantons. The Swiss population is divided into four language regions (German, French, Italian and Romansh). Even though there are some regional differences in how VET is implemented, the various distinctions are always underpinned by legislation. For example, dual-track VET (i.e. combination of classroom instruction and paid apprenticeship) is more prevalent in the German-speaking part of Switzerland in general, whereas in the French-speaking part more school-based VET takes place. VET ordinances serve as the common basis for both types of VET programme, therefore the same federal qualification can be obtained by following dual-track or school-based VET programmes.

More than two-thirds of young people in Switzerland chose a VET pathway. In 2012, 77,000 people pursued a dual-track VET. A young person is on an average between 16 and 18 years old, when they begin a VET programme. The most common form of VET in Switzerland is the dual-track pathway, which always includes an apprenticeship. VET enables young people to gain a foothold on the employment ladder, and prepares the next generation of qualified managers and skilled workers. Apprentices accept responsibility for their tasks from the first day of their apprenticeship and learn to carry out their work processes independently. Training content is designed to provide youth with vocational skills for which there is a demand on the labour market. Job availability depends on the economy's current and future staffing requirements. This means that the number and type of apprenticeships on offer are determined by the market itself (demand-driven). The Swiss VPET system is based on clearly defined training plans and national qualification procedures. VET takes place at upper-secondary level and professional education and training (PET) takes place at tertiary level. Both VET and PET take account of the differing abilities and needs of the various age groups.

VET and PET qualifications are highly regarded in Switzerland. They are an attractive way to start a career and they often serve as first choice for very able students. VET and PET are 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-track approach to VET, certain occupations, which are predominantly positioned at tertiary level in other countries, are taught at upper-secondary level (for example in the health care sector).⁶ VET is the main route into work. It offers good and prestigious career growth opportunities, it includes a well-developed system of professional education and training (PET) at tertiary level, and recognised pecuniary benefits. VET graduates attending further education at tertiary level experience a substantial increase in wages. This is documented by extensive cost-benefit analyses of the VPET system. Individuals who obtained a PET qualification earn, on average, 25% more than individuals whose highest qualification is at upper-secondary level (VET or general education). These findings show that VET serves well as the starting point of a successful professional career.⁷

⁶ Swiss Education Report 2014, page 169.

⁷ See Cattaneo M. (2011): New Estimation of Returns to Higher Professional Education and Training, *Empirical Research in Vocational Education and Training*, 3(2), p. 71–84. (URL: http://ervet.ch/pdf/PDF_V3_Issue2/Cattaneo.pdf) [Retrieved: 18.09.2015] and Cattaneo, M. & Wolter, S. (2011). Der individuelle Ertrag einer höheren Berufsbildung. *Die Volkswirtschaft. Das Magazin für Wirtschaftspolitik* 12(1), pp. 63-66 (URL: <http://dievolkswirtschaft.ch/de/2011/12/cattaneo/>) [Retrieved: 18.09.2015]



1.3 The overall education system and the VET system

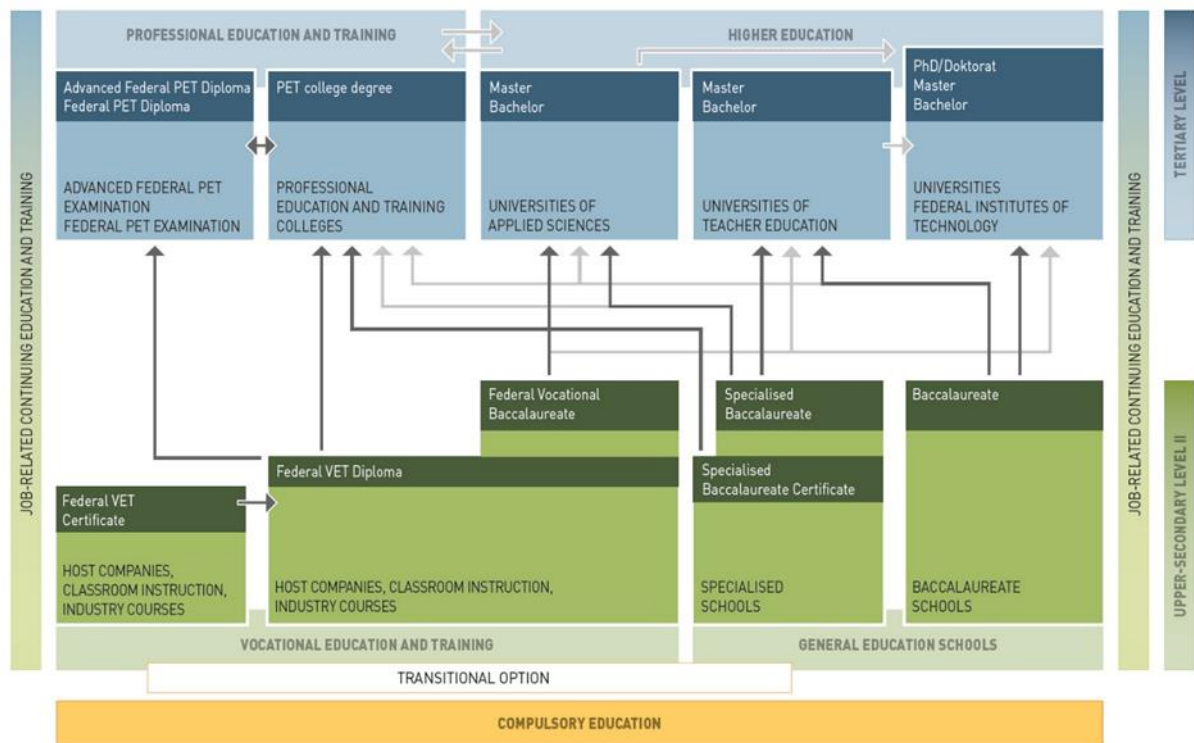


Figure: Diagram overview of the Swiss education system (SERI, 2015)

The Swiss education system consists of general and vocational qualifications, which are federally recognised formal qualifications. Transitions between different educational levels and types are possible at any time. Some transitions may require additional efforts such as supplementary courses. The high permeability is an important feature of the Swiss education system. As laid down in the Swiss Constitution, the equal recognition of general education and vocational pathways is achieved in society. In multilingual and federalist Switzerland, responsibility for the Swiss education system is shared by education institutions on the one hand and the three policymaking levels (Confederation, Cantons and Communes), on the other. Within the scope of their powers, they have jointly ensured the high quality and accessibility of the Swiss education area since 2006. Responsibilities for regulation, funding, implementation and supervision vary depending on the educational level and institution concerned.

A well-functioning governance structure is given through the strong public-private partnership in VET (see chapter on Governance of VPET system). The Cantons have authority over all matters that are not entrusted to the Confederation. It is the Cantons that bear most of the responsibility for education. At the federal level, education matters are handled by the Federal Department of Economic Affairs, Education and Research (EAER). The State Secretariat for Education, Research and Innovation (SERI) within the EAER is the federal government's specialised agency for national and international matters concerning education, research and innovation policy. SERI has 280 employees and an annual budget of around CHF 4 billion.

The Swiss VPET system enables young people to enter the labour market and it ensures that there are enough qualified workers and managers in the future. The VET and PET sectors are closely correlated with the labour market and are an integral part of the education system. The VPET system is divided into two sectors: upper-secondary level vocational education and training (VET, ISCED-97: 3B) and tertiary-level professional education and training (PET, ISCED-97: 5B). Education and training are



centred on the competences that are actually in demand as well as on occupations and professions for which there are existing job vacancies. With its direct correlation to the labour market, VET contributes to low youth unemployment rates⁸ (ILO rate 8.6 %⁹ for 2014, Eurostat NEET rate 7.3 %¹⁰ for 2014, SECO unemployment rate 3.6%¹¹ in August 2015) in Switzerland.

At cantonal level, each canton has its own school and education 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. Department of Education, comprised of the Office of Compulsory Education, the Office of Upper-Secondary Education and Training, and the Office of Higher Education). 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.

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 on an international level. This can be achieved through the elaboration of a National Qualifications Framework for VPET qualifications (NQF VPET) and its subsequent referencing to the European Qualifications Framework (EQF) 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 to facilitate job mobility, the Federal Council decided in August 2014 to introduce a national qualifications framework for VPET along with the simultaneous issuing of certificate supplements and diploma supplements. The Federal Council created the legal basis for implementation of the NQF for VPET qualifications and for certificate and diploma supplements by means of an ordinance on 1 October 2014. This framework covers approximately 730 formal VET and PET qualifications.

2 Key Features

2.1 Governance of VET and regulatory framework

Stakeholders

Vocational and professional education and training in Switzerland is the joint responsibility of the Confederation, the Cantons and Professional Organisations.

The public-private partnership (PPP) of VPET takes place on three levels: learning environment, enforcement and steering.

- At the steering level, the PPP is conducted on principles of consensus, approval of exceptions and pilot studies, enactment of VET ordinances and execution provisions. Approval of inter-cantonal courses for examiners, course offers for examination experts, composition of extra-parliamentary commissions (including the commissions in the VET sector).
- At the learning environment and enforcement level including implementation, the PPP takes place concerning the validation of non-formal learning, granting of accreditations for different VET programmes in vocational schools, conducting qualification procedures, involvement of

⁸ For international comparability the ILO youth unemployment rate is useful. Nevertheless for the analysis of the youth unemployment it might be too broad as this quota includes youth that is still in training as well as searching for a second job. The NEET rate includes young people neither in employment nor in education and training. The national quota released by the State Secretariat for Economic Affairs (SECO) and the Swiss Federal Statistical Office only includes young people that officially apply to receive unemployment benefits in Switzerland.

⁹ ILO unemployment rate. (URL: <http://www.bfs.admin.ch/bfs/portal/de/index/themen/03/03/blank/data/02.html>) [Retrieved: 28.09.2015]

¹⁰ NEET rate. (URL: http://ec.europa.eu/eurostat/en/web/products-datasets/-/EDAT_LFSE_20) [Retrieved: 28.09.2015]

¹¹ SECO: Die Lage auf dem Arbeitsmarkt, 2015 (URL: <http://www.seco.admin.ch/themen/00385/00387/>) [Retrieved: 28.09.2015] (not available in English)



vocational schools in branch courses, equality for VET professionals, cooperation between the learning locations.

The PPP adopted two mutual declarations (“Magglinger Leitlinien” and “Qualität leben”).



Figure: VET Governance (SERI 2015)

"Professional organisations" is a generic umbrella term that is used for the non-governmental stakeholders in VPET: Trade associations / industry organisations, national umbrella organisations, VET and PET providers and companies. There are four national umbrella organisations¹² and one or more trade associations and industry organisations for each branch. Mostly, trade associations and industry organisations are responsible for the process of developing new training opportunities in their branch as well as starting revision processes. Along with trade associations and industry organisations, the national umbrella organisations and VET and PET providers are involved in decision-making processes on further development of VET and PET. Companies provide, where possible, apprenticeships and traineeships, thereby paving the way for the next generation of qualified workers. The involvement of companies in the Swiss VPET system is voluntary. Professional organisations define education and training content, establish national qualification procedures and are greatly involved in the development of syllabuses.

At federal level, SERI is responsible for the strategic management and development of the VPET system.

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, educational and career guidance.

¹² Of the four national umbrella organisations two are representing the social partners (Travail.Suisse; Schweizerischer Gewerkschaftsbund) and two representing the trade unions (Schweizerischer Arbeitgeberverband, Schweizerischer Gewerbeverband).



Competent institutions and bodies

Confederation: Representing the Confederation, the State Secretariat for Education, Research and Innovation (SERI) within the Federal Department of Economic Affairs, Education and Research (EAER) is the federal government's specialised agency for national and international matters concerning education, research and innovation policy. SERI is responsible for regulating and co-funding the VET and PET sectors.

Cantons: The cantons are generally responsible for education and training in Switzerland. National co-operation through the Swiss Conference of Cantonal Ministers of Education (EDK) helps to consolidate cantonal authority over education. There are 26 cantonal VET offices responsible for implementing VET at cantonal level. VET offices coordinate their activities through the Swiss Conference of VET Offices (SBBK), a specialised conference of the Swiss Conference of Cantonal Ministers of Education (EDK). The cantons are responsible for vocational, educational and career guidance service and provide information and advice to both young people and adults. They also run vocational schools, which offer classroom instruction for both dual-track (i.e. combined work and school) and school-based (i.e. full-time classroom instruction, no apprenticeship) VET programmes. In addition, vocational schools prepare learners for the Federal Vocational Baccalaureate Examination.

VET-research

In accordance with the Vocational and Professional Education and Training Act (VPETA) the Swiss Confederation supports the sustainable establishment of VET research (Art. 4 VPETA). The respective funding programme is administered and overseen by the State Secretariat for Education, Research and Innovation (SERI). The programme aims to achieve the following three objectives: firmly establishing VET research in Switzerland, ensuring that policymaking for Switzerland's VPET system is backed by solid research findings and developing the VPET system on a continuous basis. A scientific steering committee provides SERI with advice on funding. Moreover, the committee plays a key role in scientific quality assurance regarding the VPET research program. There are two funding mechanisms: Leading houses (LHs) and individual research projects (IRPs). LHs conduct research devoted to a specific theme relating to the VPET system and serve as competence networks. The various research projects are coordinated by a university chair. Currently, the SERI programme provides funding to four Leading Houses¹³. In addition, SERI sponsors individual research projects (IRP) devoted to a clearly delimited subject.¹⁴

Financed by the Confederation, the Swiss Federal Institute for Vocational Education and Training (SFIVET) is the Swiss governmental centre of competence for the provision of tertiary-level basic and continuing training to VET actors, for the development of occupations and for VET research. There are three regional campuses (Lausanne, Lugano, Zollikofen), one in each language region. SFIVET mainly provides basic and continuing training to VET and PET professionals and examiners. It is also involved in applied research, studies, pilot projects and the provision of services. (Link: www.ehb-schweiz.ch/en)

Vocational Training Act

The **Federal Act on Vocational and Professional Education and Training** (VPETA) of 13 December 2002 and the **Ordinance on Vocational and Professional Education and Training** (VPETO) of 19 November 2003 form the legal framework for the Swiss VPET system. They define standards for upper-secondary level vocational education and training (VET), tertiary-level professional education and training (PET) and job-related continuing education and training (CET). This legislation promotes

¹³ 1. Leading House "Economics of Education: Firm Behaviour and Training Policies" (LH Econ), University of Zurich; 2. Leading House "Technologies for Vocational Training" (LH Dual-T), Ecole polytechnique fédérale de Lausanne EPFL; 3. Leading House "Learning and Instruction for Commercial Apprentices" (LH LINCA), University of Zurich; 4. Leading House "Governance in Vocational and Professional Education and Training" (LH GOVPET), University of St. Gall

¹⁴ IRPs examine questions and innovative aspects relating to the VPET system that are not addressed by Leading House research projects. All types of research institutions are eligible for IRP-funding (including universities, universities of applied sciences or the Swiss Federal Institute for Vocational Education and Training SFIVET). (URL: <http://www.sbf.admin.ch/berufsbildung/01528/index.html?lang=en>) [Retrieved: 18.09.2015]



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 options for the transfer between different types and levels of education and training as well as between different fields. The legislation brings together all areas of VPET.

In collaboration with SERI, the sectors' professional organisations are in charge of defining the training content as well as the national qualification procedures for VET programmes and federal examinations in PET.

Supplementing regulations/practices

As defined in the Federal Constitution, the cantons are responsible for enforcement of VPETA. For this reason, each canton issues its own **cantonal legislation** on vocational education and training, which is in line with VPETA. Some cantons are issuing formal legislation (cantonal law) others introduce it through ordinances, decrees and other regulations. The cantonal legislation is usually not influencing the scope of VPETA, its purpose is to enforce the existing national legislation.

SERI issues education ordinances for each VET programme (VPETA Article 19). These **VET ordinances** are put in place at the request of professional organisations or, if necessary, at SERI's own initiative. VET ordinances cover the following aspects in particular: a. the subject matter and duration of the corresponding VET programme; b. the objectives and requirements of the work-based training segment; c. the objectives and requirements of the classroom instruction segment; d. the scope of course content and the distribution of VET content across learning locations and e. qualification procedures, qualifications and titles.

The **apprenticeship contract** is a standardised agreement between the apprentice and an employer. In Switzerland, an apprenticeship contract is only valid in written form. The special content of an apprenticeship contract is that the main compensation for work performed by the apprentice is not the salary but rather the apprenticeship training professionally provided at the company. The nationally standardised apprenticeship contract is available on www.lv.berufsbildung.ch. The apprenticeship contract is described in VPETA, and also integrated into the Code of Obligations (Article 344 to 346a) in the Swiss Civil Code.

Companies have to be qualified in order to offer an apprenticeship position, which is guaranteed through the issuance of **VET accreditation**. Cantonal VET offices are in charge of issuing these accreditations. The companies submit an application to offer apprenticeship positions in a given occupation. The cantonal VET office examines the application and a visit of the cantonal VET inspector to the company is arranged. The cantonal VET inspector checks whether the VET professional at the host company is qualified to serve as such. Those provisions are described in the VET ordinance of the specific VET programme. The host company also has to prove that its infrastructure is fit for having an apprenticeship and that the practical content of apprenticeship training can be taught on the premises of the host company. After the visit of the VET inspector, the company receives VET accreditation for the specified occupation. Henceforth, the company may advertise their open apprenticeship positions in the cantonal apprenticeship register (LENA).

The **Employment Act** (EmpA) is a central element for the protection of employees. It is also binding for apprentices. For example, it regulates the protection of young children and adults, protection of health and working hours. The articles on the protection of young children (Article 29 to 32 EmpA) include, among other things, a description of the term youth, restrictions at the workplace and specifies the minimum age including exceptions.

In the **Collective Employment Contract** (Code of Obligations Article 356 para. 1), an employer or the employers' associations and the employees associations put together legal provisions about the employment relationship of the involved parties (employers and employees). The Collective Employment Contract establishes norms and is divided into a normative part and a contractual part.



2.2 Business, social partner and state cooperation

Stakeholders, roles and responsibilities

On a strategic-systemic and operational-conceptual level, the shared roles and responsibilities of public-private partners (PPP) within the Swiss VPET system are explained in the chapter entitled “Governance of the Swiss VPET system and regulatory framework”.

The **Federal Commission for Vocational and Professional Education and Training** (EBBK) advises SERI in matters regarding development and coordination of VPET on a strategic level. This ensures that the approaches in the area of VPET are aligned with general policy in education and supported by government. The 15 members of the EBBK (designated by the Federal Council) represent the Confederation, the cantons, professional organisations, trade unions and industry associations.

The annual “**National High-Level Conference on Vocational and Professional Education and Training**”¹⁵ (Nationales Spitzentreffen der Berufsbildung) has been held since 2005. The goal of this conference is to discuss the recent developments in VPET at a high level and to make strategic decisions on how to strengthen and develop the VPET system. The event serves to capture different perspectives in order to be able to respond to challenges and changes in the labour market that influence VPET. After each National High-Level Conference on VPET, a joint declaration is adopted.

The annual “**Associated Partner Conference**” (Verbundpartnertagung) is a two-day workshop-type event. This well-established event for VPET stakeholders serves to share know-how and experiences in relation to the latest challenges, themes and activities in VPET. The VPET partners include the Confederation, the cantons, professional organisations, trade unions, industry associations as well as stakeholders in education, labour market and integration (depending on the theme of the Conference).

The “**Fall Conference on Vocational and Professional Education and Training**”¹⁶ (Herbsttagung der Berufsbildung) is the national platform event for the dissemination of information concerning the VPET system. It includes presentations of projects and enables networking amongst VPET stakeholders.

Involvement of social partners

In Switzerland, social partners are part of professional organisations in the public-private partnership. They are involved in the same discussion processes as trade/industry associations. The social partners are participating in the discussion and decision-making processes concerning legislative issues and the development of vocational standards. Social partners are invited to all VPET conferences and included in all relevant commissions and working groups.

Involvement of companies

Companies are part of professional organisations in the public-private partnership. They are usually involved and represented through their trade or industry associations in VPET matters. The trade/industry associations take part in discussions and decision-making processes concerning legislative issues and the development of vocational standards. The trade/industry associations are invited to all VPET conferences and included in all relevant commissions and working groups.

2.3 Financing of VET / apprenticeships

Learners enrolled in dual-track and school-based VET programmes generally pay nothing at all for their training. In addition, learners receive a monthly salary from the host company where they undertake their apprenticeship. The terms of each apprenticeship is set forth in an apprenticeship contract signed by the learner and the host company. The host company also provides the workspace for the apprentice as well as the material required for work tasks.

¹⁵ formerly known as “national apprenticeship conference” (Lehrstellenkonferenz)

¹⁶ formerly known as “May Conference” (Maitagung)



The monthly salary paid to the apprentice varies from one VET programme to another. An apprentice earns less money in the first year of his/her apprenticeship than later on in the apprenticeship (increasing compensation). The salary is generally decided by the company and the apprentice and is written down in the individual apprenticeship contract. Legislation does not impose a minimum wage, but professional organisations within the branch usually agree on a recommendation. This recommendation is usually taken into account by the host company, but is not mandatory. It may also be part of a Collective Employment Contract for the sector. Apprenticeship salaries vary according to where the host company is based (canton, rural or urban area) and there are great differences between the compensation policies of host companies in general.¹⁷ The apprentices' salary can be different in each year of the apprenticeship. The salary is an integral part of the apprenticeship contract. The payroll accounting needs to be executed in written form.

The Swiss VPET system is funded by the Confederation, the cantons and professional organisations, each to their own degree. The cantons are responsible for implementing VET/PET. They provide at least three-fourths of public funding for the VPET system. One-fourth of the total public cost is covered by the Confederation. In 2013, around CHF 3.4 billion in public funding was allocated to the VPET system. A total of 10% of federal funding is used to promote VET/PET development projects as well as for specific activities that serve the public interest. Professional organisations (host companies) obtain a return on their investment through the positive cost-benefit-ratio in Switzerland. In the cost-benefit study¹⁸ conducted in 2009, the gross costs for professional organisations amounted to CHF 5.3 billion. This figure was lower than the productive output of learners, which amounted to CHF 5.8 billion. If we subtract the two figures, the result is a net gain of CHF 0.5 billion. More information on the cost-benefit ratio is given in the chapter entitled "Costs and benefits of apprenticeship".

In general the Swiss VET training model can be described as **production-driven**, and therefore generating a real net gain for the SMEs/MNEs involved in VET. One of the main reasons for the net gain of offering an apprenticeship is that apprentices are integrated as soon as possible into the productive processes of the company. Apprentices actually produce real output during the apprenticeship.

Contrary to the production-driven scheme in Switzerland, in many EU member states, the training strategies are based on an **investment-orientation**. Offering an apprenticeship is mainly a net-investment by the SMEs/MNEs involved in VET. In this scheme, the apprentices are mostly involved in simulated tasks and work in training workshops, which do not produce a real output or product. A company will receive a net gain from being involved in VET once the apprentice has finished the apprenticeship and enters the workforce.

Apprenticeship funding arrangements

Vocational schools are in the responsibility of the cantons. Of the public expenditure devoted to the VPET system, of which 75% is carried by the cantons and 25% by the Confederation, around 70% is spent on the maintenance and setting up of vocational schools.

The **training of vocational school teachers, apprenticeship trainers, and branch course instructors** is funded through public expenditure. The same holds true for financing of qualification procedures and preparation for enrolment in VET programmes.

Responsibility for **branch courses** lies with professional organisations. Branch courses are financed¹⁹ with course fees paid by the companies (average of CHF 150 per day and apprentice²⁰), public subsidies and professional organisations. The gross cost for all branch courses that took place in 2013 was around CHF 100 million²¹. This amounts to the average participation cost of CHF 220 per apprentice and day.

¹⁷ Lohnempfehlungen der Berufsverbände, Stand 2014 (URL: http://www.berufsberatung.ch/dyn/bin/9806-55393-1-lohnempfehlungen_der_berufsverb_nde_pdf_stand_2014_08.pdf) [Retrieved: 24.09.2015] (Link in German)

¹⁸ Strupler M., Wolter S. (2012): Die duale Lehre: eine Erfolgsgeschichte auf für die Betriebe. Ergebnisse der dritten Kosten-Nutzen-Erhebung der Lehrlingsausbildung aus der Sicht der Betriebe. Zürich and Chur 2012 (not available in English)

¹⁹ See http://www.sbbk.ch/dyn/bin/21108-21110-1-130523_sbbk_uek-reglement_d.pdf [Retrieved: 11.09.2015]

²⁰ See http://www.sbbk.ch/dyn/bin/21108-22181-1-sbbk_pauschalliste_2015_16_d.pdf [Retrieved: 11.09.2015]

²¹ See SBF: Vollkostenrechnung der kantonalen Berufsbildung 2012.



The company pays the costs of **apprenticeship training** as well as the salaries of **apprenticeship trainers and apprentices**

Incentives for companies

Generally the SMEs and MNEs involved in the provision of apprenticeship training do not receive financial incentives from the Confederation or the cantons this. Nevertheless, there are still many motivating factors for businesses to invest in apprenticeship training. The main benefits have been analysed by Swiss researchers in various studies. Those studies have shown that one of the most important incentives for businesses²² in Switzerland to take part in apprenticeship training is the positive cost-benefit-ratio it offers.

Companies invest in apprenticeships as they receive the following returns:

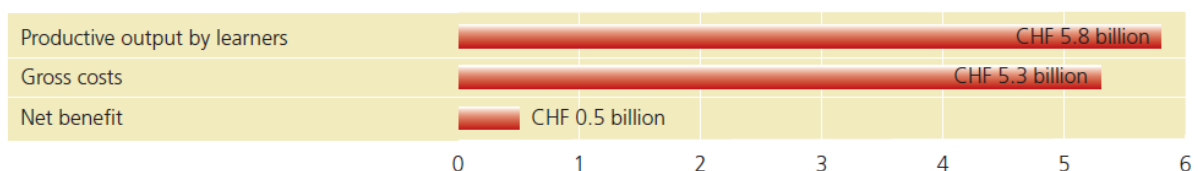
1. **Receiving tangible benefits:** Consistently over the past ten years, cost-benefit calculations for Swiss firms have shown that the productive contribution of an apprentice in a typical Swiss host company exceeds the training costs by more than CHF 6,000 per apprenticeship.
2. **Strengthening the image:** Customers become aware of the company taking their social responsibility seriously.
3. **Knowing the latest trends:** Young people bring fresh ideas and challenge old habits.
4. **Investment in the future:** Well-trained employees can quickly adapt to new developments and can be a decisive factor for success. Engaging in apprenticeship training facilitates the search for suitable workers in the future and therefore prevents skill shortages in a given branch.

Costs and benefits of apprenticeship

For each apprenticeship in the different sectors, the cost-calculations are different. The gross cost of an apprenticeship position for a company is between CHF 20,000 and CHF 30,000 per year²³. Some apprenticeships are more expensive than others. Opposite to the gross cost of an apprenticeship position for a company, there is the average productive performance of an apprentice, which is between CHF 18,000 and CHF 36,000 per year. One factor of the gross cost is the apprenticeship salary, which in some EU member states is relatively low for Swiss apprentices. Roughly speaking, an apprentice in Switzerland earns about 12% of a typical salary for a given occupation in the first year of his/her apprenticeship.

A study conducted by Strupler et al. analysed apprenticeship salaries. They showed the example of learners enrolled in a three-year VET programme in industrial painting; during the 1st year, the apprentice painter earns a gross annual salary of CHF 8,768; in the 2nd year, CHF 11,566; and in the 3rd year, the apprentices will receive CHF 18,534. In total, the apprentice painter will have earned CHF 38,868 during his three-year apprenticeship from the host company, which includes monthly salary, 13th/14th month salary, special provisions and additional expenses. The study is a good indication of most VET programmes and the range of the salary from the lowest (about 30'000 CHF) to the highest (about 68'000 CHF) is quite large.

Cost/benefit ratio for Swiss companies involved in VET programmes, survey year 2009²⁰



(Source: SERI Facts and Figures 2015: Study by Strupler and Wolter (2012))

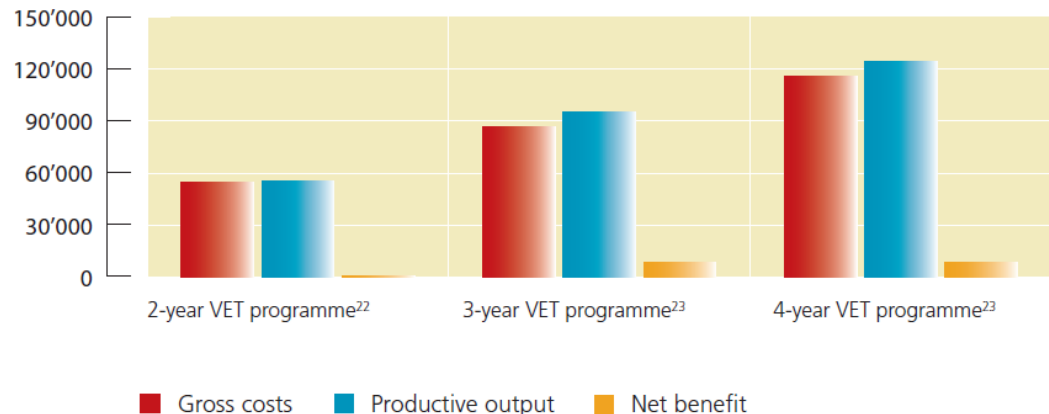
The cost-benefit ratio always depends on national features like wage structures, labour market regulations, the education system, etc. It is therefore unlikely that Swiss results can automatically be applied to other contexts outside of Switzerland.

²² VPET mainly takes place in proper market-oriented companies (SMEs and MNEs).

²³ Study by Wolter and Schweri (2003): Kosten und Nutzen der Lehrlingsausbildung aus der Sicht Schweizer Betriebe.



Cost/benefit ratio by apprenticeship duration, in CHF



(Source: SERI Facts and Figures 2015: Study by Strupler and Wolter (2012))

Swiss researchers at SFIVET have been working on a tool for Cost-Benefit Analysis (CBA)²⁴, which also enables “ex ante simulations”. With those simulations, it would be possible to analyse education systems in countries where apprenticeship training systems have not yet been introduced. The CBA-tool was designed to collect data and show simulations of the effect of changes in occupational curricula (reforms) in real time.

With the help of cost-benefit analysis it was possible to prove that private rates of return on education for Swiss PET qualifications (professional college degrees and qualifications issued to those passing professional examinations) and higher education qualifications all show positive net benefits for the individual. However, the individual net benefits of an additional year of PET outweigh the net benefits of an additional year spent at a higher education institution. This means that the private costs of pursuing a PET qualification are almost always compensated by average income gains of 16-25%. These figures show how well tertiary-level education is developed for individuals who start with a VET programme at upper-secondary level and later decide to obtain a PET qualification.²⁵

2.4 National standards – matching supply and demand

The monitoring of VET is conducted by the Federal Office for Statistics and SERI, as well as by the Swiss Coordination Centre for Research in Education (SCCRE).

Confederation

- Issuance / recognition of VET ordinances and corresponding fundamental documents
- Supervision and support for VET reform and revision
- Strategic management

Private sector

- Definition of training content
- Definition of qualification procedures
- Operational project management for VET reform and revision

Cantons

- Implementation of VET ordinances and training plans
- Supervision and support for VET reform and revision

²⁴ Schweri, Juerg Prof. Dr., SFIVET (2014): Cost-Benefit Analysis and Tools – the Swiss experience. URL: http://www.cedefop.europa.eu/files/05_cost-benefit_surveys_and_tools_-_the_swiss_experience_juerg_schweri_sfivet_switzerland.pdf (Retrieved: 22.04.2015)

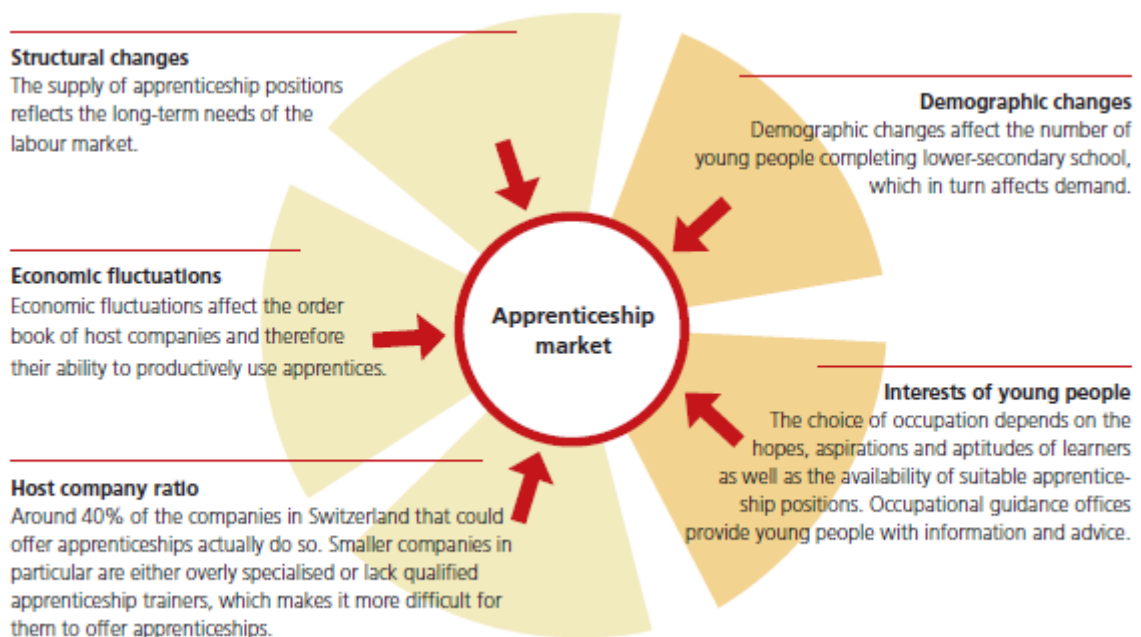
²⁵ Cattaneo M. (2011): New Estimation of Returns to Higher Professional Education and Training, Empirical Research in Vocational Education and Training, 3(2), p. 71–84. (URL: http://ervet.ch/pdf/PDF_V3_Issue2/Cattaneo.pdf) [Retrieved: 18.09.2015] and Cattaneo, M. & Wolter, S. (2011). Der individuelle Ertrag einer höheren Berufsbildung. Die Volkswirtschaft. Das Magazin für Wirtschaftspolitik 12(1), pp. 63-66 (URL: <http://dievolkswirtschaft.ch/de/2011/12/cattaneo/>) [Retrieved: 18.09.2015]



Assessment/forecasting of skills needs

No general forecasting of skills needs occurs in Switzerland. The Confederation trusts professional organisations to assess the market mechanisms in their branches and to respond when skills needs arise. Therefore, the task of assessing the need for a new occupation and the anticipation of skills needs is largely up to professional organisations. With their understanding of the labour market, they are in the best position for such assessments. The analysis of skills needs takes place before the development of a new qualification. Several consulting firms in Switzerland are specialised in accompanying professional organisations during this process.

The same holds true for the process of revising existing qualifications. The process is driven by professional organisations. They may approach SERI as soon as they discover a discrepancy between the skills needs of a qualification and the VET programme associated with it.



(Source: SERI Facts and Figures 2015: Apprenticeship market)

Matching supply and demand

Every four years, the **Swiss Education Report** is published by the SCCRE. The report contains facts and figures derived from statistics, research and official data for the entire Swiss education system. It sets out the relevant background and contexts, describes the institutional characteristics of each level of the education system and assesses the performance of the education system on the basis of the three criteria of effectiveness, efficiency and equity. The Education Report sets out to give all players in the education system the opportunity to assess Switzerland's current education system and to develop their ideas regarding the Swiss education system of tomorrow. It does this by providing the best possible summary of current knowledge. (Link: www.skbfc-scre.ch/en/education-monitoring/education-report-2014/)

In Switzerland, two transition processes are used for monitoring purposes. The first transition is the moment that the youth finishes compulsory education and is taking the first step into the labour market while searching for an apprenticeship position. The second transition is the moment that learners complete their apprenticeship and step into the labour market as an employee. The moment of the transition process serves well to detect incoherencies in the existing system as well as to look for indicators of change in the labour market.



- Transition I: The match of apprenticeship demand and supply is monitored through the “**apprenticeship barometer**” (Lehrstellenbarometer) based on a written business survey carried out twice a year as well as on a telephone survey of young people between the ages of 14 and 20. This instrument has been established by the Link Institute for Market and Social Research as part of a SERI mandate.
- Transition II: In addition, the cantons carry out a monthly survey of supply and demand in the apprenticeship market, which is presented in their “**list of apprenticeship positions**” (Lehrstellennachweis LENA).

The “**VET graduate employment barometer**” (Berufseinstiegs-Barometer) gives information about the development of the labour market for graduates of VET (novice workplaces). This instrument was developed by the Stellenmarkt-Monitor Schweiz at the University Zurich on behalf of SERI and the SECO. The latest publication showed that about 66% of all VET qualification holders immediately entered the working force after graduation, of which two of five graduates remained employed with their host company. About 20% enrolled in continuing education at tertiary level and only about 9% of all VET graduates remained unemployed or looking for a job in the year right after their graduation²⁶.

Occupational profiles and curriculum design for training

The legal basis for each VET programme in Switzerland can be found in national **VET ordinances** issued by SERI. These are prepared through the joint efforts of the Confederation, the cantons and the corresponding professional organisations. VET ordinances cover the legally relevant aspects applying to a given occupation: they define the occupational profile, the content of training, the criteria that qualified workers in the occupation must meet, the maximum number of students, and qualification procedures. VET programmes lead to **federally recognised formal qualifications**.

Training plans form the basis for the vocational teaching concept used for VET programmes. They are used to structure vocational education and training courses and guide vocational teachers and trainers in their work. They define not only the technical but also social and personal skills a student must acquire, the content of education (lessons at vocational schools, range of practical skills taught at the host company and content of branch courses) and specify the respective roles of vocational school, host company and branch training centre in providing these competences. They also define the process of assessment.

For each VET ordinance there is the obligation to nominate a **committee for occupation development and quality (CODQ)**, which is either exclusively created for the given occupation or a standing group in the occupational field. Each CODQ is comprised of members representing the three main VPET partners (Confederation, cantons and professional organisations). Their role is to adapt training plans for specific VET programmes to the current needs of the labour market. If necessary, they submit a request to SERI to have changes made to the VET ordinance.

In-company training plan and school curriculum design

The tasks of the apprenticeship trainers at host companies include training apprentices according to the goals set forth in the VET ordinance (Bildungsverordnung), the training plan (Bildungsplan) and the company-specific apprenticeship training plan. This planning serves to describe the tasks to be undertaken over the specified duration in the specified units or divisions of the host company. These measures ensure that the apprentice is being trained in the defined activities during the apprenticeship. They also ensure he/she acquires the necessary practical experience and skills attainment. The company-specific apprenticeship training plan helps to keep the overview of the entire vocational year and to plan ahead for tasks to be performed by apprentices. Every semester the apprenticeship trainer agrees with the apprentice on the individual learning objectives (Lernziele), which are documented in

²⁶ SERI (2012). VET Graduate Employment Barometer for the Years 2010-2012. [Retrieved 11.09.2015] <http://www.sbf.admin.ch/berufsbildung/01587/01588/01609/index.html?lang=en> (SERI, 2012, S. 2&3)



an education report (Bildungsbericht). Each apprentice has his/her own training logbook (Lerndokumentation).²⁷

Vocational schools are responsible for teaching vocational subjects as well as language, communication and society (LCS) subjects to learners, and they employ vocational school teachers. The school curriculum designs are defined according to the VET ordinance and the training plan for the specific occupation.

Assessment/examination and certification of training

The qualification procedure (Qualifikationsverfahren) usually marks the end of the apprenticeship. The apprentice acquires grades from the vocational school, which are complemented by the grade for the practical experience from the host company. Usually final examinations take place at vocational schools for the final grades. The apprenticeship trainer in the host company awards a grade for practical experience (Erfahrungsnote). The final grade for the apprentice is the median of the weighed grades of all the subjects covered in the final examination and the grade awarded for practical experience.

3-year or 4-year VET programmes lead to issuance of a Federal VET Diploma. 2-year VET programmes lead to issuance of a Federal VET Certificate. Learners enrolled in a 3-year or 4-year VET programme for the Federal VET Diploma can take an additional preparatory course for the Federal Vocational Baccalaureate (FVB) Examination, which they can take as soon as they finish their apprenticeship.

2.5 Programmes and pathways in the apprenticeship system

Apprenticeship programmes and qualifications

Two-thirds of each Swiss youth age-group enrol in vocational education and training (VET) at the end of compulsory education.). There are around 230 occupations to choose from. The VET sector forms the basis for lifelong learning and opens up a wealth of job prospects.

VET programmes provide learners with solid professional competences and pave the way for lifelong learning.

- 3-year or 4-year VET programmes for the Federal VET Diploma: These VET programs provide learners with the competences needed to work in a specific occupation and open access to tertiary-level professional education and training (PET). Learners also have the option of preparing for the Federal Vocational Baccalaureate (FVB) Examination either during their training or after graduation.
- 2-year VET programmes for the Federal VET Certificate: These VET programmes provide young people with more practical skills to obtain a recognised qualification for a specific occupational profile. Graduates of the 2-year VET programme may enrol directly in a 3-year or 4-year VET programme leading to the Federal VET Diploma.
- Federal Vocational Baccalaureate (FVB): Learners enrolled in a 3-year or 4-year VET programme for the Federal VET Diploma have the option of preparing for the Federal Vocational Baccalaureate (FVB) Examination. This preparatory course covers general education subjects and those who pass the FVB examination may enrol in a Swiss university of applied sciences (UAS) without having to take an entrance examination. Moreover, holders of the FVB can prepare for the University Aptitude Test (UAT), which opens the way for enrolment in a cantonal university or federal institute of technology. The FVB can only be obtained in combination with a VET qualification. Either the studies to obtain the FVB are taking place parallel to the apprenticeship (extracurricular courses at VET schools) or after already having finished the apprenticeship (extra-occupational courses at VET schools).

²⁷ Checklists and Information for apprenticeship trainers at host companies: <http://www.hb.berufsbildung.ch/dyn/4160.aspx> [Retrieved: 11.09.2015]



Access and guidance to apprenticeship

There are two sides to the apprenticeship market: the supply side (host companies offering apprenticeship positions) and the demand side (young people looking for apprenticeship positions). A learner needs to write job applications to companies that offer a matching apprenticeship position. The process is similar to a regular job application and includes writing an application letter with a CV and submitting school records. The company chooses the candidates and invites them to an interview. Once the company has chosen its apprentice, the apprentice will receive an apprenticeship contract from the company. This nationally standardised fixed-term contract establishes the terms of employment and the apprenticeship salary, which varies from one apprenticeship and canton to another. The companies notify the cantons that they have issued a new apprenticeship contract and therefore will send a learner to vocational school according to the details set forth in the apprenticeship contract. The cantons finance vocational schools. The cantonal VET offices notify the vocational schools of any new apprentices that will enrol in the upcoming year (beginning of apprenticeships usually in August). Vocational schools then assign learners to the relevant classes according to the occupation that they are learning.

The State plays a mediating role: it ensures the best possible general conditions for host companies, encourages the provision of apprenticeship positions and helps young people to choose an occupation.

Apprenticeship marketing is a cantonal task in Switzerland. Cantonal VET offices are familiar with the conditions in their regions. They also establish and maintain contacts with local businesses. Accordingly, they are the best placed to assess the number of available apprenticeships, to take suitable measures at the right time and to offer individual support to young people in their search for an apprenticeship position. If the apprenticeship situation is strained, then the federal government may step in to offer additional financial incentives. The most important apprenticeship marketing measures are:

1. Information and advice on careers
2. Apprenticeship records
3. Creation of host company networks
4. Provision of state-sponsored transitional options (mainly bridge-year courses)
5. VET promotion agents deal directly with companies, encouraging them to create apprenticeship positions
6. Placement and individual mentoring of young people who have been unable to find a suitable apprenticeship

The cantons are generally responsible for **career guidance and information**. They work closely with schools during the occupation selection process and help pupils to find a suitable apprenticeship position. To facilitate this process, there are cantonal “lists of apprenticeship positions” (Lehrstellen-nachweis LENA), which can be searched through by occupation. Career guidance takes place in cantonal vocational guidance offices. Individual coaching and mentoring is offered by cantons (free of charge) and private organisations (consultation fees possible). Young people may receive career guidance and counselling during and after compulsory education to help them develop their career choice, discover their personal and professional preferences and skills, and optimise their applications.

Progression and permeability

The Swiss VPET system is based on clearly defined education and training options as well as on national qualification procedures. Typically, VET and PET are very flexible: Learners may pursue more advanced education and training opportunities, switch from VET and/or PET pathways to general education and/or higher education pathways and later change the course of their working lives with relative ease.

Tertiary-level professional education and training (PET) builds up from upper-secondary level vocational education and training (VET). It provides professionals with specific competences and pre-



prepares them for highly technical and managerial positions. There are around 400 federal examinations for the Federal PET Diploma and Advanced Federal PET Diploma as well as 57 professional college degree programmes in 8 different professional fields. The Swiss PET sector enables a wide range of people to obtain exactly the type of tertiary-level education and training needed on the labour market. One of the key features of PET is that it is closely correlated with the needs of the labour market and the approach to learning combines theory with the practical realities of the profession. The PET sector enables individuals to plan their own learning progress on the basis of their individual life circumstances, learning curves and employment situation. It offers them the opportunity to acquire a tertiary-level qualification regardless of age. Generally, several years of professional experience in the field are required in order to pursue a PET qualification. The PET sector offers holders of VET qualifications the opportunity to take their education and training to a higher level. This enhances the overall appeal of VET programmes and the VPET system as a whole. Holders of higher education qualifications also use PET examinations, particularly the Advanced Federal PET Examination, as a means of acquiring additional competencies for the labour market.

The **Federal Vocational Baccalaureate (FVB)** opens the way to **Swiss Universities of Applied Sciences (UAS)**.

FVB holders who pass the **University Aptitude Test (UAT)** may enrol in a cantonal **university** or one of Switzerland's two **federal institutes of technology (FITs)**.

Continuing education and training (CET) options are available at all levels.

Dealing with diversity

Transition pathways between lower- and upper secondary level are especially intended for **young people** who encounter difficulties making the transition. They include the following: individual tutoring, two-year VET programmes for the Federal VET Certificate; the option of obtaining individual skills certificates; and VET Case Management. These are pathways for young people who, upon completion of lower-secondary level, are unable to enter the labour market without assistance. The various measures always include practical training and pre-apprenticeships. Their general aim is to prepare young people for enrolment in VET programmes and ensure that they stay in the labour market.

Initiatives to encourage the integration of youth in VET programmes regardless of their nationality and origin are an integral part of Swiss VET. VPETA considers several options that can be used to help young people. The Confederation (acting through SERI) supports projects to integrate young people from a migration background in VET programmes.

Two-year VET programmes lead to issuance of the **Federal VET Certificate**, which is a federally recognised formal qualification. These VET programmes have their own specific occupational profiles focusing on obtaining practical skills. Graduates of the 2-year VET programme may enrol directly into a 3-year or 4-year VET programme leading to the Federal VET Diploma.

Individual tutoring is intended to provide learners with learning difficulties support in 2-year VET programmes. Host companies, vocational schools, third-party training centres and social workers all work together to ensure the learner's progress. Apprentices in 3-year or 4-year VET programmes may also benefit.

Individual skills certificates are intended for young people who have been unable to complete a VET programme leading to a federally recognised qualification. These certificates provide written acknowledgement of the vocational and social skills that the young person has acquired. Those certificates are issued by the cantons and professional organisations.

In order to integrate disadvantaged youth with multiple problems into VET programmes, each canton is in charge of having a **VET Case Management** programme (Case Management Berufsbildung). VET



Case Management helps to ensure that young people and young adults (up to 25 years old) are given the opportunity to complete a VET programme. VET Case Management is based on the principle of empowerment and involves a coordinated approach to maximise the efficiency and effectiveness of measures taken. This programme is a structured process to coordinate the activities of all persons and institutions involved (guidance counsellors, teaching supervisors, regional employment centres, migration offices, welfare offices and cantonal invalidity offices). With VET Case Management, only one agency or person is responsible for providing various inter-institutional services geared to the young persons' individual needs. The cantons are responsible for the operational implementation of VET Case Management. The Confederation provides a funding contribution to the cantons for implementation of this national project, which was initially launched at the national Apprenticeship Conference in 2006. The Confederation also helps to sustain the national operational infrastructure (database, coordinative tasks).

Adults may acquire VET qualifications by various means. The Federal Vocational and Professional Education and Training Act (VPETA) mentions several pathways ranging from regulated, structured procedures for some occupational categories to individual recognition procedures in validation processes. There is no age limit to beginning an apprenticeship. If the company and prospective apprentice are in agreement with each other, an adult may begin an apprenticeship. The formal qualifications that can be acquired by adult learners are exactly the same as what young learners acquire upon completion of training.

2.6 Company training and teaching at schools

Learning companies

In order for a **company** to obtain authorisation to train apprentices, certain requirements must be met: Operational requirements:

- Workplace/environment for an apprentice
- Practical work according to the apprenticeship training plan must be executed according to the respective regulation/ordinance, model course, etc. Partially external training courses are also possible.

Staff requirements:

- Apprenticeship trainer according to the respective regulation/ordinance
- Participation in a training course for apprenticeship trainers

Companies need to apply for **VET accreditation** issued by the canton, and it must be awarded before taking on an apprentice. The cantons may have additional requirements to the ones mentioned above. The cantons are also responsible for conducting inspections of apprenticeships in the companies. The inspectors visit the companies on a regular basis in order to check their ability to be a good host company for their apprentice. The cantons may also revoke VET accreditation from a company that does not meet the requirements during inspections.

Small and medium-sized companies, which are too specialised to offer the training in all areas specified in the training plan, may train apprentices together and share the cost and time invested in the training. By creating a **host company network**²⁸ (Lehrbetriebsverbund), these small-sized or specialised companies may host part of an apprenticeship in combination with one or more other companies. The participating companies in this multi-company collaboration share resources and apprentices. SERI can provide initial funding to support the creation of such a host company network.

Integrating learning at work and at school

Most VET programmes are of the dual-track variety (i.e. part-time classroom instruction at a vocational school combined with a part-time apprenticeship at a host company). As mentioned previously, in Switzerland most apprentices work in a real work environment with actual tasks. This implies that the

²⁸ Examples of host company networks: www.lehrbetriebsverbund.ch, www.login.org



apprentices undertake tasks that generate profits for the host company. The output of the apprentices is of economic value for the company. The apprentices only train in training situations or workshops, if safety issues prevent them from mastering the tasks in the work environment.

The less common variety is a school-based VET programme (i.e. full-time classroom instruction, no apprenticeship). School-based VET programmes are generally offered by trade schools or commercial schools. Tertiary-level professional education and training (PET) also combines classroom instruction with work-based training, thereby ensuring a smooth transition from dual-track VET programmes.

With the dual-track approach to learning, learners attend courses at vocational schools on a part-time basis. The remaining time is spent doing an apprenticeship at a host company where they are provided with the practical know-how, knowledge and skills needed for their chosen occupation. Learners also actively take part in the host company's production processes.

In some cases, host companies may wish to combine their strengths to offer one or more apprenticeships in a modular format and therefore form host company networks.

Vocational schools provide classroom instruction. This consists of instruction in vocational subjects as well as subjects falling under the Language, Communication and Society (LCS) category. Classroom instruction is intended to develop technical, methodological and social skills of learners while imparting the theoretical and general principles needed to perform occupational tasks. Classroom instruction covers one or two days per week. Vocational schools also offer a preparatory course for the Federal Vocational Baccalaureate Examination. Branch courses are meant to complement classroom instruction at vocational schools and apprenticeship training at host companies by providing learners with essential practical skills. Branch courses often take place at third-party training centres run by the industries involved.

Pedagogical methods

Swiss VET qualifications are characterised by a strong learning outcomes approach and a competence-oriented structure of training content.

In Switzerland, two vocational models are commonly used to structure the documents that describe the VET programmes and qualifications in a competence-oriented manner: The competence-oriented model and the competences-and-resources model. These two models determine how professional competences are described and structured in the training plans that are used by vocational school teachers and apprenticeship trainers.

With the competence-oriented model, the competences that students need to acquire are depicted in the training plan in the form of competence areas, competences and performance objectives. Competences include technical competence, methodological competence, personal autonomy and social skills.

With the competences–and-resources model, the training plan describes the specific competences that learners need to acquire. 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 to successfully handle the situation.²⁹

²⁹ SDBB, Glossary of Vocational and Professional Education and Training, 2012.



Teacher and trainer workforce

The task of the vocational school teachers, apprenticeship trainers and branch course instructors is to train apprentices at the three learning locations (i.e. vocational school, host company and branch training centre, respectively). The professional and pedagogic requirements in terms of background and work experience of vocational school teachers, apprenticeship trainers and branch course instructors is described in VPETA³⁰ (Art. 45-48) as well as in VPETO³¹ (Art. 40-54). All three of these categories of VET professional are trained only at federally recognised institutions³² that work closely with the private sector. Vocational school teachers make a special effort to be up-to-date in their classroom instruction so to meet the current needs of companies.

VET professionals support and challenge their learners to become more self-reliant for their current and future professional careers and pathways. VET professionals take economic, social political and operational interests in consideration whilst also considering personal expectations and needs. The diversity of profiles of VET professionals is quite large and correlates with the different learning locations and the depth of pedagogical and didactical expertise required for classroom instruction, apprenticeship training or training in branch courses.

There are several different training courses for VET professionals, each of a different duration:

- For apprenticeship trainers at host companies
- For branch course instructors at branch training centres or similar third-party training centres, in trade schools (Lehrwerkstatt) and other recognised VET institutions
- For vocational school teachers responsible for basic vocational instruction at vocational schools (vocational subjects, language, communication and society subjects, and sports lessons)
- For vocational school teachers responsible for preparing learners for the Federal Vocational Baccalaureate Examination
- For teachers working at professional colleges

2.7 VET excellence / Image and Marketing of apprenticeships

VET Excellence

There is a broad range of VET programmes, which also includes apprenticeships that are very demanding. Apprenticeships are attractive for very good learners due to the uniqueness of the profiles and learning pathways. Especially the integral approach of the practical training and the school-based learning leads to a profound knowledge of the profession. Apprenticeships lead towards being a well-respected and qualified person in the specific profession. They are sought-after employees on the labour market. The career opportunities after having completed a VET programme are vast and depend on the individuals' talents and ambitions. There are great opportunities for formal and non-formal continuing education and training (CET) as well as many on-the-job opportunities for professionals. Mixed education pathways, the combination of professional and academic education, are given due to the permeability between the pathways. They are also fully recognised by the labour market and the socially valued by the Swiss public.

Tertiary-level professional education and training (PET) builds up from upper-secondary level vocational education and training (VET). It provides professionals with specific competences and prepares them for highly technical and managerial positions.

Talented learners may also wish to obtain the Federal Vocational Baccalaureate (FVB), an optional additional qualification entitling the holder to enrol in a Swiss university of applied sciences (UAS). In addition, FVB holders who go on to pass the University Aptitude Test (UAT) may also enrol in a cantonal university or one of Switzerland's two federal institutes of technology (FITs).

³⁰ Federal Vocational and Professional Education and Training Act

³¹ Ordinance on Vocational and Professional Education and Training

³² <http://www.sbfi.admin.ch/berufsbildung/02383/index.html?lang=de> [Retrieved: 11.09.2015]



The Swiss VET sector is also a source of contestants in skills competitions, such as the WorldSkills Competition (Swiss overall ranking of 4th place at 2015 World Skills in Sao Paolo) and the EuroSkills Competition. Each year, numerous trade associations send their young professionals to compete in national SwissSkills competitions. At the same time, these competitions serve as a means of selecting the most excellent participants for the EuroSkills and WorldSkills competitions. In 2014, the first centrally organised SwissSkills competition was held in Bern.

The image/attractiveness of apprenticeship in the society

Two-thirds of all young people coming out of compulsory education in Switzerland enrol in VET. VET qualifications increase one's job prospects on the labour market and form the basis for lifelong learning. In Switzerland, nearly 95% of young people hold upper-secondary level qualifications. VET graduates enjoy good employment prospects on the labour market. They are sought after by SMEs and large-sized companies alike and enjoy high rates of employment. Young people and adults without post-compulsory qualifications are more frequently unemployed than those who have completed VET. The long-term average (since 20014) unemployment rate of those without post-compulsory qualifications is 1.9 times higher for young people and 2.7 times higher for adults.

The **promotion of VPET** is a shared responsibility of professional organisations, the cantons and the Confederation. The **overarching image campaign**³³ for the entire Swiss VPET system is called "VETPLUS.CH" and is supported by professional organisations, the cantons and the Confederation. SERI is responsible for execution of the VETPLUS.CH campaign. Initially launched in 2007, the latest conceptual relaunch took place in August 2015. The current campaign specifically aims to raise public awareness and the image of VPET and its pathways.

- Raising public awareness and the image of VPET.
- Showing the career possibilities that VPET offers.
- Encouraging companies to offer apprenticeship and traineeship positions.
- Helping to supply the economy with qualified workers

VPET actors are free to complement the national campaign with their **own promotional activities**. Goals of those campaigns are for example to increase public awareness of specific qualifications or systemic elements of VPET. Many of the trade/industry associations have launched their own campaigns to raise awareness of the qualifications of their specific branch.

In 2014, the Confederation organised the first **international congress**³⁴ devoted exclusively to vocational and professional education and training. The main focus was on image building, bilateral exchanges between the private sector and policymakers and the presentation of "good practice" in host companies and vocational schools. The congress was sponsored by SERI, the Canton of Zurich, professional organisations and the Zurich University of Applied Sciences (Zürcher Hochschule für Angewandte Wissenschaften, ZHAW). For all of these sponsors, the International Congress on Vocational and Professional Education and Training is of great strategic importance. The second edition of the International Congress on Vocational and Professional Education and Training will take place in June 2016 exploring "From Skills to Prosperity – Sharing Elements of Success". The Congress offers the opportunity to share and learn from the experiences made in different education systems all over the world and to find out about the core elements leading to successful learning and implementation.

Quality assurance

Great priority is placed on ensuring quality within the Swiss VPET system, as in other areas of education. Quality assurance is conducted at various levels by the federal government, the cantons and professional organisations. VPETA and VPETO form the legal basis for maintaining the quality of the VPET system. Considerable importance is attached to quality assurance at all levels and in all areas of education. The providers of VPET are responsible for maintaining quality. The federal government is responsible for encouraging quality, establishing quality standards and monitoring adherence to

³³ More information on www.vetplus.ch

³⁴ More information on www.vpet-congress.ch



them. 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 where individuals work, and other third-party learning locations. The Federal Council guarantees the quality of qualification procedures irrespective of levels and areas of education. A "committee for occupation development and quality (CODQ) is established for every VET ordinance issued by SERI for the occupation in question. The VET ordinances issued by SERI contain instruments to promote the quality of VET (e.g. training plans). Each VET ordinance must be reviewed regularly according to VPETA in order to ensure that the VET programme meets the needs of labour markets and that apprenticeship training may take place accordingly.

The federal government focuses mainly on its supportive role in the implementation of 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 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 VPETA. At national level, this Act, along with various ordinances, 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;
- Requirements relating to qualification procedures;
- Cooperation among study locations;
- Education and training of VET professionals.

The cantons and the federal government are responsible for the provision of education and training and for quality in the areas assigned to them. The cantons are responsible for monitoring improvement in quality in host companies, organisations offering work placements, courses taken outside the organisations in which individuals are working, vocational schools and professional colleges. As part of their supervisory roles, the cantons ensure that guidance is available for learners and for vocational school teachers and apprenticeship trainers. The cantons also handle 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 prepare and organise examinations for the Federal PET Diploma, examinations for the Advanced Federal PET Diploma and professional college degree programmes. The federal government and the cantons share the monitoring of improvements in quality and quality assurance in relation to the Federal Vocational Baccalaureate.

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. The monitoring includes:

- 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 contracting parties



3 Recent developments

Specific projects on national level in **Initial VET** including improvements for qualification processes, competence-based examination processes, matching and legal measures / www.sbf.admin.ch/match-prof

- Simplification of validation processes and competence-based examinations
- “Match-Prof” – Improvement of matching supply and demand of VET apprenticeship positions on the labour market
- New age limit and related measures for hazardous work in VET
- Appeal of Federal Vocational Baccalaureate
- VET qualifications for adults

Strategic project at national level with a package of measures in order to enhance the financing, positioning, esteem, comparability and transparency of **professional education and training (PET)** nationally / www.sbf.admin.ch/hbb/

The measures include the following aspects:

- Increase in funding for PET examinations, degree programmes and preparatory courses
- Improvement of tax deductions for job-related continuing education and training on individual level
- National Qualifications Framework for VPET, certificate supplements (for VET qualifications) and diploma supplements (for PET qualifications)
- Refined English title translation standards for PET qualifications
- Improved permeability between the different types of tertiary education
- Promotional measures to increase visibility and esteem of PET

Switzerland's overarching strategic objectives for **international cooperation in vocational and professional education and training (IC-VPET)** / www.sbf.admin.ch/ibbz result from corresponding objectives in various policy areas: education policy, development policy, foreign policy, migration policy and economic policy, which are also affected by various trends. Based on the objectives and principles of these policy areas, the Confederation has identified three overarching strategic objectives for international cooperation in vocational and professional education and training:

- 1) Strengthening the Swiss VPET system within an international context
- 2) Encouraging economic and social growth in partner countries
- 3) Successful positioning of Switzerland at the international level.



4 Sources and further reading

Publications

- SERI (2012). *Entering the Labour Market*. (URL: <http://www.sbf.admin.ch/berufsbildung/index.html?lang=en>) [Retrieved: 18.09.2015]
- SERI (2015). Vocational and Professional Education and Training in Switzerland – Facts and Figures. (URL: <http://www.sbf.admin.ch/berufsbildung/index.html?lang=en>) [Retrieved: 18.09.2015]
- SERI (2011). Professional Education and Training - Facts and Figures. (URL: <http://www.sbf.admin.ch/berufsbildung/index.html?lang=en>) [Retrieved: 18.09.2015]
- Swiss Education Report 2014. (URL: <http://www.skbf-csre.ch/en/education-monitoring/education-report-2014/>)
- Strupler M., Wolter S.: Die duale Lehre: eine Erfolgsgeschichte – auch für die Betriebe. Ergebnisse der dritten Kosten-Nutzen-Erhebung der Lehrlingsausbildung aus der Sicht der Betriebe. Zürich und Chur 2012. (available in German only)
- Wolter, C. & Mühlemann S. (2014). Return on Investment of Apprenticeship Systems for Enterprises: Evidence from Cost-Benefit Analyses. *IZA Journal of Labour Policy*, 3(25). (URL: <http://link.springer.com/article/10.1186%2F2193-9004-3-25#>) [Retrieved: 18.09.2015]

Links

- State Secretariat for Education, Research and innovation: www.seri.admin.ch
- Vocational counselling services and VET descriptions: www.berufsberatung.ch
- Swiss VET database: <http://www.adressen.sdbb.ch/>
- Comparison possibilities between educational profile by profession: <http://www.anforderungsprofile.ch/>
- Information on labour market development in 130 vocational fields: <http://www.beratungsdienste-aargau.ch/ausbildungsfinder.html> (from March 2015)
- **WAB**: Largest education database in Switzerland – professional education and training, universities of applied sciences and continuing education and training
- **UNI-INFO**: Database of all degree programmes at Swiss cantonal universities
- **Fachhochschulen**: Database of all degree programmes at Swiss universities of applied sciences
- **Eurydice**. Description of national education systems

Swiss Federal Legislation on VPET

- Federal Constitution, Art. 61a, Sec. 1 & 3. (URL: <https://www.admin.ch/opc/en/classified-compilation/19995395/index.html>) [Retrieved: 18.09.2015]
- Federal Vocational and Professional Education and Training Act (VPETA), 2002. (URL: <https://www.admin.ch/opc/en/classified-compilation/20001860/index.html>) [Retrieved: 18.09.2015]
- Vocational and Professional Education and Training Ordinance (VPETO), 2003. (URL: <https://www.admin.ch/opc/en/classified-compilation/20031709/index.html>) [Retrieved: 18.09.2015]