Getting Qualified for Employment

- How the dual-track VET system in Switzerland matches skills development and the needs of the labor market

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Abstract

The historic, social, political and economic contexts of a society shape its educational system. They provide the background for the policy of education, including the roles and tasks assigned to VET, and the subsequent transition of VET students into working life and continuing education.

Vocational Education and Training (VET) traditionally play an important role in Switzerland. The VET system is generally highly recognised and supported by a policy which advocates a market-oriented system and aims at an early integration of young people into the labour market. The general goal of VET – certainly not only in Switzerland – may be described as follows: Building the competencies needed for successful integration into the labour market and for life-long learning. This means that the qualification needs of the labour market have to be met by teaching occupation-specific knowledge and skills, but also by steering the VET system to match demand and supply for work force as good as possible. At the same time, general education should continue to be fostered, at least in initial VET and transferable, personal and social skills should also be encouraged. Further, the system should offer flexible options for higher professional education.
Some facts and figures about VET in Switzerland will be presented in this paper to show that these goals are not mutually exclusive but can be successfully pursued and met. The attractiveness and competitiveness of the Swiss VET system could so far be preserved and partly even enhanced. This is reflected by the preferred educational choices made by the youth and adults at upper secondary and tertiary level, by the returns on educational investments and by the general employment situation. Around 70% of the school-leavers enrol in VET programmes at upper-secondary level. Switzerland has a comparatively low youth unemployment rate and the dual VET system is certainly one of the success factors. The majority of VET students experience a relatively smooth school-to-work transition in Switzerland, thanks to the proximity of their training to the world of work.

The well established Swiss VET system has to be understood in its socio-cultural and economic context. Key factors like its structure, its governance and the continuous efforts for adaptation and innovation have to be considered. Within the last two decades, economic and societal changes have posed a number of challenges (globalisation, tertiarisation) to traditionally grown, highly organised and specialised VET systems like Switzerland’s. Substantial reforms and innovations have been introduced to adapt the system and meet the challenges even if it is to mention that there is only very limited regulation for VET in Switzerland. The characteristics for a successful dual-track system that link skills development with youth employment will be described as well as measures that have been undertaken in order to ensure improved employment opportunities for young people.

The dual-track VET-system in Switzerland

Around the world, governments and businesses face a paradox: high levels of youth unemployment and a shortage of job seekers with critical skills. The lack of availability of jobs due to structural change and economic crisis is certainly one reason, why youth do not get employed in many countries. But it’s far from the whole story.
Despite the large increase in joblessness in many countries, employers continue to have difficulty finding the right talent. These shortages arise due to a lack of appropriately qualified candidates but also to the inability or unwillingness of firms to offer competitive pay and attractive working conditions, to poor recruitment and training policies. A critical reason for youth not getting the skills employers need is that education providers, young people, and employers do not understand one another and operate in “parallel universes”.

The youth unemployment rate figure of OECD shows that countries with a dual economy based VET-system (e.g. Switzerland, Netherlands, Austria, Germany) have advantages and lower youth unemployment rates than countries without VET-tradition. This trend is similar if the analysis is based on the NEET-rates (Not in Employment, Education or Training).

Switzerland has a comparatively low youth unemployment rate and the Swiss dual VET system is certainly one of the success factors.

The Swiss VET system (see Figure 2) has proven to be successful in the three intersections: enrolling in VET-programmes, building the right skills, and finding work. The majority of young people is integrated into post-compulsory
education and into the labour market.

VET programmes are offered at upper secondary level with an entry directly after compulsory school or after transitional offers (so-called bridge-year courses). VET programmes last 2, 3 or 4 years. Two-year programmes make up about 5% of all programmes. About a third of the graduates of these programmes subsequently continue their education in a 3- or 4-year programme.

The education system offers a number of pathways to higher professional education and training (PET). National PET Diplomas and PET College Degrees may be obtained at tertiary B level. At tertiary A level, the Universities of Applied Sciences (UAS) offer Bachelor and Master programmes. Holders of a Federal VET Diploma who obtained a Federal Vocational Baccalaureate (FVB) have direct access to the UAS.
Besides these main pathways, other options show the permeability in the Swiss education system: e.g. students graduating from general education schools at upper secondary level (baccalaureate schools, specialised schools) may continue in a track of professional education.

Holders of a FVB have access to the universities or federal institutes of technology if they pass an University Aptitude Test.

The PET system (at tertiary B level) contributes substantially to tertiary education. In 2009, 20% of the Swiss labour force held a PET degree, equaling the proportion of tertiary A degree holders.

Starting a VET career is a valued and a flexible option in Switzerland. Around 70% of the school-leavers enrol in VET programmes at upper-secondary level (see Figure 3). This high proportion of VET entries has remained remarkably stable since 1995. A decrease is expected in the next decade for demographic reasons. Constant efforts to adapt and innovate the VET system will be needed to respond to the demand for skilled workforce and to ensure the attractiveness of VET, especially for higher-performing students (who might also opt for general education offers). But also the integration of weaker students is important, by providing VET programmes that prepare them successfully for the labour market and for life long learning. Without a qualification at upper-secondary level there is a high risk of unemployment nowadays.
Almost 90% of all VET students choose an apprenticeship in which work-based training in a company and education in a VET school run in parallel, the dual track system (see Figure 4).
Chapter II: Getting Qualified for Employment - How the dual-track VET system in Switzerland matches skills development and the needs of the labor market

Work-based training and school education are complemented by a third learning arrangement, the industry courses so that practical and theoretical teaching and learning are distributed on three learning environments (see Figure 5). The industry courses mostly take place at special training centres run by the involved industries. Because of this third element, the industry courses, we sometimes also speak of a “triadic” system.

Apprentices gain occupational experience and practice at their workplace, by participating in the productive processes and being coached by their trainers or other qualified workers.

VET-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. VET schools also offer a preparatory course for the Federal Vocational Baccalaureate Examination. About half of the school time is dedicated to occupational subjects, the other half to general education. More performing students may choose a VET programme with extended general education requirements in order to obtain a Federal Vocational Baccalaureate (FVB).

Industry courses are meant to complement classroom instruction at VET schools and work-based training at host companies by providing learners with essential practical skills. Industry courses often take place at third-party training centres run by the industries involved.

The time spent in industry courses depends on the occupation. If high-level technologies are involved, apprentices may spend up to 60 days in industry courses, usually distributed on several, block-released courses over the duration of the apprenticeship.
Linking skills development and labor market
- Characteristics of a successful dual-track VET-system

1. Involvement of the private sector

1) VET programmes’ content has to match the needs of the labor market

The influence of the professional organizations is fundamental for the VET and PET sector and, compared to other countries, it is very high in Switzerland. The influence of professional organizations ensures that the content of VET programmes matches the needs of the labor market. The Swiss solution guarantees, on the one hand, a high match between learning content and the skills required on the job market and, on the other hand, a high mobility of trainees on the job market. This is achieved by the «organised» channeling of the employers’ influence, rather than by having companies influence the learning content individually. Both these factors are similarly decisive for the appeal of company-based VET programmes for those completing their compulsory education.

The professional organizations have the lead in defining the occupation-related competencies to be built up in their VET programmes. They get didactical and methodological support from an external institute(e.g. Swiss Federal Institute for Vocational Education and Training, SFIVET) but the professional organizations are
Therefore, apprenticeship-based programmes have a high level of acceptance among employers since the trainees build up occupational competencies through participation in work processes in their host company, which are further completed and deepened in sector-specific industry courses (a feature that also ensures that work-based learning is not too company-specific).

In general, it can be expected that dual-track VET programmes (apprenticeships) are more closely related to the needs of the labor market than entirely school-based programmes.

2) Companies need a benefit from training apprentices

The VET sector is funded by the Confederation, the cantons and professional organizations, each to their own degree. Public expenditure for Switzerland’s VPET system stood at around CHF 3.5 billion in 2012. The cantons are responsible for implementing VPET. As such, they cover at least three-fourths of associated costs.

Professional organizations provide both services and funding for the Swiss VPET system: they do the groundwork, run their own training centres and promote specific occupations (VET sector) and professions (PET sector). Generally speaking, host companies stand to benefit from taking part in VET programmes, a benefit generated by the productivity of apprentices during training or by their take-over after training.

According to a cost/benefit study conducted in 2009, gross costs of involvement in VET amounted to CHF 5.3 billion. This figure was outweighed by the productive output generated by learners, which amounted to CHF 5.8 billion. Economic driven economic orientated VET.
To summarize, it can be said that, with few exceptions, the Swiss VET sector offers very good conditions enabling host companies to derive a net benefit from their investment in apprenticeship training. These conditions also lead to an efficient outcome on an economic level since there are enough companies willing to offer an adequate number of good-quality apprenticeships. This, in turn, brings benefits to society since all young people coming out of lower-secondary school will be able to find a suitable apprenticeship on the basis of their individual skills and background. Such apprenticeships are a decisive factor for their future entry into the labour market.

3) Flexibility and liberty to fix the wages

It is important for the companies to have the liberty to determine the apprentices’ salaries. There is no regulation from the state. Professional organizations usually do recommendations for their branches concerning the salary for apprentices but this is not mandatory for the companies.

4) Limited regulation

The VET system(apprenticeship market) should not be regulated too strongly. Regulations like subsidies for training or the obligation to take over apprentices as employees should not be imposed. One exception in Switzerland is that at the request of professional organizations, the Secretariat of Education, Research
and Innovation (SERI) can, under certain conditions, declare funds for training in the respective branches mandatory for all companies that are active in a branch. This means that the companies that do not train will have to pay money into the fund to help to cover for the costs of VET/PET (e.g. development of VET programmes, organisation of industry courses and qualification procedures).

2. Quality assurance

Quality needs to be ensured in all three learning environments (host company, VET school, industry courses).

The SERI has defined core curricula for each category of VET teacher or trainer, in which the minimal pedagogical standards to be attained are defined.

For every VET programme a federal ordinance is issued by the SERI. VET ordinances are prepared jointly by the Confederation, the cantons and the professional organisations. They cover the legal aspects of an occupation: Definition of the occupational profile, duration and content of the VET programme, the criteria that qualified workers must meet and the qualification procedures (exams).

All VET programmes had to be reformed and new ordinances issued as a consequence of the VPETA, the new Vocational and Professional Education and Training Act, which came into force in 2004. This was done following a master plan and a procedure defined by the SERI. Originally, this process was expected to be finalised within 5 years but the last ordinances are still under revision. This shows that it takes time to define market-relevant VET programmes and qualification standards. Until an ordinance is issued it may last 2 to 3 years. Until the first cohort will graduate, 6 or 7 years will have passed.

VET qualification profiles and training plans therefore have to be based on current and future occupational requirements. The professional organizations have the lead in defining the occupation-related competencies to be built up in their VET programmes. They get some financial support for this work (75,000 CHF per ordinance) but, at the same time, they are obliged to ground their qualification profiles and training plans on analyses. For this, most professional
organizations get some external support (e.g. from SFIVET). The training plans structure the VET programmes and guide the teachers and trainers. They define the technical, social and personal skills to be acquired in the three learning arrangements (company, industry courses, VET school). To test the consistency between the training plan and the qualification procedure of an occupation, there will also be a “consistency check” by a third party (i.e. not the institution that helps the professional organizations during the development phase).

The development and implementation of VET programmes is illustrated in the following figure.

Figure 7. Development and implementation of VET programmes in Switzerland

When a VET ordinance is issued, a Commission for Quality and Development for the given occupation, composed of members representing all VET partners (Confederation, cantons, professional organizations), is formed. Its role is to monitor the development of the occupation and, if necessary, to adapt the VET programme to the needs of the labour market. Thus the partnership between the stakeholders and the underlying instruments of governance ensure an adequate number of VET programmes and their quality.
Swiss Government set up the Swiss Federal Institute for Vocational Education and Training (SFIVET) in order to ensure that the training of instructors and trainers in all regions of Switzerland meets the highest standards. The following figure shows the support of SFIVET for all main stakeholders:

![Figure 8. Support of SFIVET to VET stakeholders](image)

3. Close cooperation of stakeholders

The provision of VET and PET is a mission shouldered by the Confederation, the cantons and Professional organisations. These three partners are jointly committed to the highest possible standard of VPET.
The Confederation, cantons and professional organisations all work together and share their tasks and responsibilities in VET by acting on different levels. According to the principle of subsidiarity, a lot of autonomy is accorded to the cantons, the intermediate professional organizations and the companies: Everybody takes responsibilities at the corresponding level.

The Confederation is responsible for the strategic management and development of the VET/PET system as a whole, which means implementing legal provisions and supervising VET and PET activities, comparability and transparency of courses throughout Switzerland, enactment of around 250 VET ordinances and the recognition of around 400 examination regulations and 40 core curricula for PET.

The Cantons are responsible among others for implementing the Federal Vocational and Professional Education and Training, supervising apprenticeships, VET schools and PET colleges and Providing occupational, educational and career guidance services.

Professional organisations establish training content of VET programmes and the skills needed to obtain a qualification. Here, professional organisations
work with social partners, other organisations and VET providers to develop the VET system further.

4. Permeability

What do Sergio Ermotti and Monika Walser have in common? Not only are they CEOs of two internationally renowned Swiss companies - the banking giant UBS and iconic bag brand Freitag respectively – but they are also graduates of the Swiss dual vocational training system. Other top Swiss managers and leading professionals have also opted for the vocational route.

This shows that the Swiss VET-system is highly recognized in the Swiss Labor market and that it is highly permeable. The Swiss Education system follows the principal that there are no dead ends. The system is highly permeable and VET forms the basis for lifelong learning and opens up good career prospects. The Swiss VET system is the first rung on the lifelong learning ladder. Students who have successfully completed their basic training can choose to embark on an advanced programme which equips them with specific occupational skills and prepares them for leadership roles. There are around 400 federal vocational exams, as well as 52 college degree programmes in 8 different occupational fields. Generally speaking, the Federal Vocational Baccalaureate entitles the holder to enrol in a Swiss University of Applied Sciences(UAS) without having to sit an entrance exam. The high degree of permeability within the Swiss education system means that anyone, any time, can build on their existing basic knowledge and skills, acquire advanced professional qualifications, re-train, or even – if they pass the University Aptitude test, study for a degree at a traditional university or at one of Switzerland’s two Federal Institutes of Technology in Lausanne and Zurich(EPFL and ETHZ).
Integration measures for young people

A successful start in working life is essential for personal development. Two transitions are critical in determining the future prospects of young people and young adults: the transition from lower-secondary to upper-secondary level (transition I) and the transition from school to working life (transition II).

Increasing the graduation rate at upper-secondary level is among the various education policy objectives established by the Confederation and the cantons. By 2020, 95% of all 25-year-olds should have an upper-secondary level qualification. Today the graduation rate at upper-secondary level stands at 90%.

The vast majority of young people manage to find an apprenticeship. The apprenticeship market in Switzerland is quite well balanced with a supply of 92,000 apprenticeships and a demand of 96,500 in 2012. In 2011 the supply of apprenticeships for the first time even exceeded the demand by young people looking for apprenticeship positions. As the following figure shows about 70% of the apprentices got an apprenticeship in their desired profession.

Figure 10. Satisfaction with choice of apprenticeship, Swiss Education Report 2014

![Figure 10. Satisfaction with choice of apprenticeship, Swiss Education Report 2014](image-url)
However, the interest of young people in a given occupation and available apprenticeships are not the only factors influencing the apprenticeship market. Other factors such as structural change, demographic change and economic conditions also influence the apprenticeship market. In recent years, the Confederation, cantons and professional organisations have taken a series of measures to help young people enrol in VET programmes and find suitable apprenticeships, thereby lending support to development of the next generation of qualified workers.

A solid battery of instruments is available to help young people gain access to VET programmes.

The three main partners regularly review these measures (e.g. in the Annual Apprenticeship Conference) to assess effectiveness and make changes as needed. VET and PET should be perceived by young people, adults, employers and HR officers as an appealing pathway to education and training, with a clear understanding of all of the associated benefits. Various partners work at all levels to make this happen.

The Swiss Service Centre for VET/PET, Occupational, Educational and Career Guidance (SDBB) provides information through various media channels, teaching and working materials on all occupations and professions as well as on academic, vocational, professional and continuing education and training options. The SDBB also maintains a website www.berufsberatung.ch that provides an overview of the full range of options. In addition, the SDBB provides VET/PET offices, host companies and learners with important documents and working materials relating to VET.

Marketing of occupations is handled mainly by trade associations. They produce brochures, fliers, videos, websites and other communication media for the purpose of raising the profile of their occupations and drawing young people. In addition, job fairs are organised each year in Switzerland for young people, teachers and parents.

The Annual Apprenticeship Conference is led by the head of the Federal Department of Economic Affairs (FDEA). This event offers representatives of the
Confederation, the cantons, professional organizations and the Swiss Parliament the opportunity to discuss the current state of the apprenticeship market and to review existing instruments and decide on any necessary adjustments.

Here are some examples of measures that have been taken to help young people to enroll in VET programmes and at the end have access to the labor market.

- **Occupational information and advice**
  Cantonal guidance offices work closely with schools to provide young people with assistance in choosing an occupation and finding a corresponding apprenticeship.

- **Apprenticeship postings**
  Apprenticeship postings show a list of vacant apprenticeship places advertised by host companies. These apprenticeship places can be searched by occupation and canton.

- **Bridge-year courses**
  Bridge-year courses are intended to help young people gain access to VET who face social barriers and/or had poor academic performance in lower-secondary school. Bridge-year courses also serve as a stop-gap measure for young people who are unable to find a suitable apprenticeship immediately after completing lower-secondary school.

- **Coaching /mentoring**
  Coaching and mentoring are intended to provide individual support to pupils in lower-secondary school. Examples include measures to develop relevant occupational, social skills and application skills. The programmes and projects are sponsored by both the cantons and private organisations.

- **VET Case Management**
  VET Case Management is a structured process: a single agency is responsible for ensuring a coordinated and systematic approach. The focus is on the principle of empowerment and on maximising the efficiency and effectiveness of measures taken(see page 71).
• Apprenticeship placement services
  Measures to help learners find a suitable apprenticeship begin from the fourth quarter of the last year of lower-secondary school. Apprenticeship placement services are an additional means of easing the transition from lower-secondary to upper-secondary level.

• Individual tutoring
  Individual tutoring is intended to provide slower learners in two-year VET programmes with complete support. Host companies, VET schools, third-party training centres and social workers all work together to ensure the learner’s progress. Individual tutoring is provided for in Art. 18 para. 2 of the Vocational and Professional Education and Training Act. While mainly intended for learners in two-year VET programmes, learners in three-year and four-year VET programmes may also benefit.

• Trials
  One-week trial periods to get in closer contact with occupations and companies they are interested in.

And a few examples of measures to help host companies.

• VET promotion agents
  VET promotion agents deal directly with companies to encourage them to create apprenticeship places for learners.

• Host company networks
  The creation of host company networks enables small-sized or specialised companies that would otherwise be unable to train learners, to offer mini-apprenticeships in combination with one or more other companies. This allows the participating companies in the host company network to share resources. The SEFRI provides start-up funding for the creation of host company networks.
Lessons learnt for Korea and other countries

The Swiss dual-track VET system has a very long tradition with an excellent reputation. It will not be realistic to transfer a system that has grown over decades into another country. Nevertheless, to learn from dual-track systems may be beneficial and the transfer of important elements should be possible.

In comparison to the dual-track system school-based VET programmes may have some serious disadvantages which may be inferred from different observations and experiences that are interrelated. From our point of view there are several disadvantages that Swiss VET policy generally tries to minimise by strongly advocating the dual model. School-based VET

- **tends to be more expensive** (either for the state or the individual participants) because the state not only has to fund the vocational schools, but also has to come up for practical training. In the private-public partnership of the dual system these costs are covered by the companies.

- **has limited or no productive goals** and cannot make use of the students’ productive potential during training. Research studies on the cost-benefit situations of companies in Switzerland showed that the apprentices‘ productivity made up for the training costs in two thirds of the trained occupations. If the costs cannot be compensated during the training period (e.g. due to intensive support and/or expensive technologies needed), the companies may still have a profit afterwards. They have invested in training qualified staff that they can perhaps subsequently employ. So they save costs for recruiting qualified labour and for getting them introduced to their workplace.

- **risks to produce inert knowledge** which is not transferred and applied by the students in work situations. Learning research showed that knowledge and skills are to a great deal situated and therefore better instructed and learned within the intended contexts of application and their social setting. For VET students it seems particularly relevant to be immersed in
authentic and situated practice from the start to become adaptive and flexible professionals.

- **risks to produce work force that is not needed or do not meet the qualification needs of the labour market.** In the Swiss dual system, the companies and professional organisations are directly involved in defining the goals (content and competencies) of VET. Further, the companies will offer apprenticeships and hire apprentices on the market when they need for qualified work force.

Based on these observations, a few recommendations are described below from our point of view that of course would need a deeper analysis:

- **Involve companies**
  As seen before, the success of a work-based VET-system is built on the involvement of the private sector. Companies have to be aware of the value to offer training. Private companies define their needs for future staff. When they see that curricula can be developed by them and therefore young people be trained exactly according to the companies’ needs, when they see that offering work-based learning can be profitable, companies will play an active role in vocational education and training even without financial support of the government.

- **Start small with a few sectors and build on success stories**
  Our experience shows that it is helpful not to change a whole VET-system from the beginning with a top-down approach but to pilot an alternative model (based on the Swiss practice or others) in which curriculums are developed on the ground of the immediate working experience in the companies. A recommendation could be to start with a few companies of selected industries. Programmes (of different lengths) for 2-3 professions can be developed in collaboration with the private companies starting with the very admission of the students, passing the actual dual education and training process, based in companies and vocational schools, and finally
ending with an official exam for the students.

- Be patient
  It takes time to implement elements of a dual VET-system. In Switzerland for example reforms of market-relevant VET-programmes and new occupations may take several years. Until an ordinance is issued it may last 2 to 3 years. Until the first cohort will graduate, 6 or 7 years will have passed. When work-based learning is not implemented in a country and not part of the culture yet, even more time has to be considered.

- Promote a positive public image of VET
  In countries where VET has no long tradition and the image of VET is in general poor it is important to promote a positive image of VET. Based on the above mentioned success stories for the 2-3 professions it should be shown that dual-track VET offers good opportunities and provides students with the skills that matches the needs of the labor market.
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