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# Vocational and Professional Education and Training in Switzerland

Success factors and challenges for  
sustainable implementation abroad



**SFIVET**

## VOCATIONAL AND PROFESSIONAL EDUCATION AND TRAINING IN SWITZERLAND – PROGRESSIVE AND PRACTICALLY ORIENTED

Whether I am attending a ministerial meeting, an economic mission or a reception for international delegations, I am regularly asked to explain what makes Switzerland such a powerhouse of innovation. Expecting me to mention high-tech companies or promising start-ups that we support through an ingenious innovation policy, the enquirers are surprised to hear me first touching on our dual track vocational education and training system, and how it is built on the readiness of local companies to train learners (apprentice/students).

Thanks to its close ties to the job market, vocational education and training focuses on those fields where there is a demand for skilled employees. Young people are integrated into a professional environment early on in their careers, and they can choose from a variety of appealing professions and career opportunities. At the same time, our economy and society both benefit from the permeability of the Swiss education system, which provides us with skilled employees and managers, low (youth) unemployment and social stability.

The driving force behind key initiatives is not the federal government, but companies and organisations instead. They voice their views when they see a need for reform, or a call to define new occupations. Moreover, the businesses recognise opportunities, push innovation and build new distribution channels.

That is why we are constantly modernising our vocational education and training system together with the cantons and with professional organisations. To date, we have adapted almost 200 vocational education and training programmes to the legislation introduced in 2004, thereby



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ensuring that courses are consistently skill-oriented and closely related to the workplace. The federal vocational baccalaureate also offers a wide range of prospects.

It is the link between vocational education and training and extended general education. The baccalaureate not only grants access to universities of applied sciences, but also – after passing an additional exam – to universities and our two federal institutes of technology in Zürich and Lausanne. Furthermore, the modernisation of professional education (tertiary level) has led to new core syllabuses for study programmes at colleges of higher education, as well as to a greater focus on competences in federal examinations.

Professional education can lead to outstanding career opportunities: around 240 federal diplomas of higher education, 170 advanced federal diplomas of higher education and an additional 400 study programmes at colleges of higher education prepare students for demanding specialist and management positions.

Unfortunately, professional education is still labelled as inferior to the academic education and many people are underestimating the vast range of opportunities. We have to do more to get the message across to young people and their parents – especially those from foreign countries – that vocational education and training is the ideal solution within the Swiss education system. It allows everyone to progress according to their individual talents, regardless of their background or social status. This is where we distinguish ourselves from other countries where attaining a general baccalaureate, followed by a university degree, is the prerequisite for a successful career.

In order to make vocational education and training even stronger, and to ensure it remains an appealing choice, the Federal Council passed in 2014 a set of measures geared at increasing the appeal of professional education. Starting in 2018, an additional CHF 75 million a year will help reduce the financial burden for people who pass federal examinations. Moreover, an ordinance on the national qualifications framework for vocational and professional education and training is already in force. The ordinance allows acquired skills to be evaluated and to compare qualifications according to the European Qualifications Framework. This leads to

increased recognition of Swiss vocational and professional qualifications and improves the status of graduates on the national and international job market.

Furthermore, we are currently working on developing the federal vocational baccalaureate. At the same time we also evaluate new modes of access to universities of applied sciences that are practice and work oriented. Particular focus is placed on science, technology, engineering and mathematics – as there is a pronounced skill shortage in these fields.

Finally, the internationalisation of the economy creates new challenges for vocational and professional education and training, and this is why particular attention should be paid to the possibility of transferring this model abroad. Many countries are faced with high youth unemployment. We can contribute solutions by presenting our education system and by promoting awareness of the inherent strengths of a dual track system. This book will provide a valuable service to vocational and professional education and training in Switzerland – of this I am convinced.

In Switzerland, vocational and professional education and training and general education are two tracks of equal importance and appeal. Together they form an innovative system capable of keeping up with developments in society and the economy. We are justifiably proud of this system.

*Berne, Spring 2016*

*Johann N. Schneider-Ammann, Federal Councillor*

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## **PREFACE OF THE AUTHORS AND PUBLISHERS**

Several European countries and the world at large are being haunted by apparition of youth unemployment. In the European Union, every fourth person under the age of 25, who is not studying is unemployed. In the meantime it has nearly risen to fifty percent in Southern Europe.

There is no greater humiliation for a young human being than to feel unwanted. Many of them, who are not needed in job market possess higher education qualifications and yet are still unemployed. The pertinent question about the ability and commitment of the education system for the labour market is therefore decisive.

In several international comparisons concerning education, innovation, precision, technology leadership, production strength and quality Switzerland is well positioned. The country has excellent qualified specialists and executive managers at all different levels and utilises them specifically. The dual track vocational and professional education and training system is the core of Swiss success model relating to work quality and industrial competitiveness. This is a combination of apprenticeship in a company and in classroom instruction at a federal vocational and professional education and training school – a type of Public-Private Partnership.

A worldwide trend in the direction of an academic profession is casting a long dark shadow on society. More and more adolescence invariably insist on enrolling at Baccalaureate schools and Universities. In the mainstream of academic world every one lives with the belief that young people would later fare better if they were to obtain an academic title. This opinion needs to be emphatically scrutinized based on two rationales:

Firstly, the university education path very often qualifies and educates young people further away from the requirement of the labour market: The learned skills are not needed in the labour market.



Secondly, most of the full time school education path tends to neglect the practical human qualities similar to the qualification of practical and emotional intelligence, reliability, accuracy, precision and responsibility.

These are the “Swiss strengths and virtues”. But from our point of view, such abilities, skills and qualities (skills and soft skills) for employability of young adults and the economic competitiveness in general are decisive.

This book indicates in *chapter 1* those European countries with the highest number of Baccalaureate/Abitur students and University graduates mostly register the highest rate of juvenile unemployment and simultaneously experience significant economic descend. It illustrates that those fewer European countries which are conversant with the dual track vocational and professional education and training system concerning competitiveness, economic strength and juvenile rate of unemployment perform the best. These are, Switzerland, Germany and Austria and to a limited extend also the Netherlands and Denmark.

This development thoroughly goes in the direction of “knowledge based society” – undoubtedly. Needless to say that knowledge and innovation alone are not beneficial if the professional skilled work force with practical intelligence and qualitative work just as human, social and methodical competences that innovation can implement. Personal and practical abilities as well as skills need to be interconnected with the evolving knowledge – vocational and professional education and training system conciliates that precisely. Who has never been involved in company production processes systematically underestimates the significance of the professional education.

This book shows in *chapter 2* – in contrast to many other individual studies in economics and pedagogic – the interdependency between education system and economic performance. That is: economic policy is also education policy – and education policy is economic and social policy as well.

For decades and even now, the relevance of the dual track vocational and professional education and training in the academic world is unrecognised. Foremost, the tragedy of youth unemployment in Europe and the Anglo-Saxon world, out of their sheer ignorance galvanised the educational elite. OECD, EU-Authorities, UNESCO and likewise the Ameri-

can President today lauded the dual track vocational and professional education and training as the efficacious strategy against youth unemployment. Foreigner delegations have been visiting Switzerland on almost weekly bases to know and learn about the dual track vocational and professional education and training. In *Chapter 3* we present this system.

In recent years the dual track vocational and professional education and training system has become a reference model for many countries. Therefore, the Swiss Ministry of Economics, Education and Research elaborated a strategy for international cooperation in VPET. In this context, an important role has been assigned to the Swiss Federal Institute for Vocational Education and Training SFIVET, that is explained in *chapter 4* of this book. Th s institute is the publisher of this book as well.

*Chapter 5* is being dedicated to addressing the experiences and practical questions specific to implementation of the VPET-System in other countries. Concrete examples from different countries are presented in *chapter 6*, thereupon the immense benefits of VPET projects not only for the economy of the region, but also the social advantages for the communities and development for families in these regions are described. VPET is “the” sustainable approach for investment in a region, in order to generate employability, establishing an enterprise, independency, maintaining families and extended families, social security and with that foster and secure to a greater extend the contentedness in the long-term!

Th s book aims on one hand at enterprises and their executives. It contributes that these public figure es obtain a better insight and understanding for the dual track VPET-System. It is considered as “foundation work”, which can be utilised by International Enterprises, Delegations from FDFA, SDC, SERI, Department of Migration, Chambers of Commerce, Worlddidac, Switzerland Global Enterprise, SECO, etc. On the other hand, it is impressively informative and suitable for education and training courses or even as a “present” for the managers in Switzerland and abroad.

It is based on the English translated version of the book on the Swiss vocational and professional education and training system from Rudolf H. Strahm, which was originally published in German under the title

“Die Akademisierungsfalle” (Berne 2014) and under the French title “Le mirage des longues études” (Geneva 2016).

It has been supplemented with comments under the framework conditions regarding the introduction of VPET-Systems the Initiator, Co-Author and Co-Publisher, Bruno H. Geiger. The English edition was supported by the *Canton of Zug/Ministry of Economics (Volkswirtschafts-direktion Kanton Zug)*. As Co-Publisher by the *Swiss Federal Institute for Vocational Education and Training SFIVET*. The leading Swiss Education Publisher *hep verlag* in Berne published and marketed this book.

*The Swiss Minister for Economics, Education and Research, Federal Councillor Johann Schneider-Ammann*, who became the President of the Swiss Confederation for the year 2016, has patronised this English edition with his foreword.

The English translation was provided by *Dr. Neelam Nagar*, CEO of Neelam’s Sprachschule, Berne and *Jasmin Anita Lal* as well as by *ADAPT Localization Services GmbH*, Bonn.

The enterprises and organisations which have financially supported are enumerated in this book as their projects and company activities relate to the dual track vocational and professional education and training system.

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*The Publisher: Peter Egger (hep verlag)*

# Part I

## The dual track Vocational and Professional Education and Training System: Educational Policy and National Economy

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“Educational policy is Economic policy and Economic policy is Educational policy”

*by Rudolf H. Strahm*



# 1

## **Why University Education is not the only path forward and the apprenticeship is rated at the top**

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An Overview

## INTRODUCTION AND SUMMARY

Currently Europe is going through tragic youth unemployment scenario. Almost one fourth of all adolescence between the ages of 15 to 24, who is currently not in education formation, is unfortunately unemployed. In 2015, the EU registered over 5 million adolescence and 21 million adults above 25 years of age as unemployed.

Indeed, there is an enormous gap within Europe itself: The countries with a dual track Vocational and Professional Education and Training System VPET have remarkably lower juvenile unemployment rate. Above all, this is prevalent in Switzerland, Germany, Austria, Liechtenstein as well as Netherlands and Denmark. The other western and southern European countries are only conversant with fulltime schooling education system.

The term “Dual track Vocational and Professional Education and Training” entails professional formation – usually between the ages of 16 to 20 – an apprenticeship in a company combined with classroom instruction at a federal VPET school.

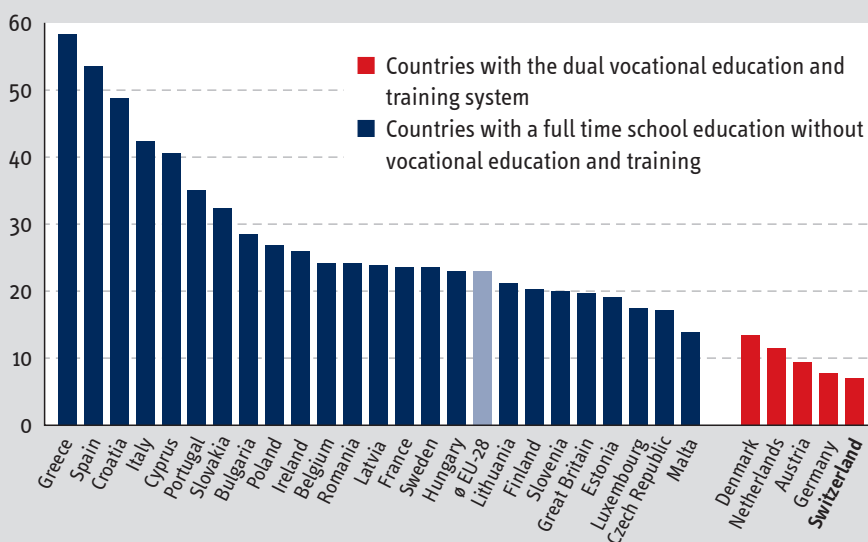
The dual track VPET is unequivocally superior, concerning employability and labour market integration, to the fulltime schooling education programmes.

Moreover, the VPET improves the industrial innovation and international competitiveness, along with export prospects. Refer chapter 2.

GRAPH 1.1

## Adolescence unemployment in Europe and the discrepancy of the educational system

Adolescence unemployment quota: The proportion of unemployed people in the workforce, 15–24 years of age, 2014 (in %)



Source: Eurostat © Strahm/hep verlag

Currently Europe is suffering from high rate of adolescence unemployment. Almost every fourth adolescence in Europe, who was not in the process of education formation, was unemployed in 2015.

The countries with the dual track vocational and professional system have distinctively lower rate of adolescence unemployment (red). These are Switzerland, Germany, Austria, Liechtenstein and – slightly less significant – the Netherlands and Denmark. Under the term “dual track apprenticeship” it is meant, a combination of practical orientated education in a company and theory in a state vocational school.

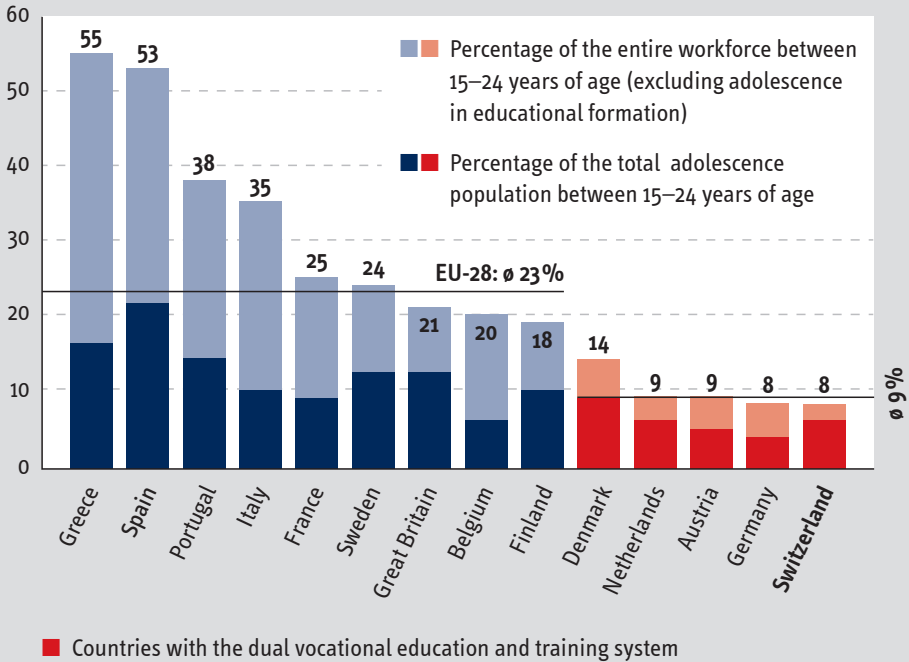
The other EU-countries do not have a formal company apprenticeship, but only full time school education. They have structurally higher rate of adolescence unemployment. This dual track vocational/professional and educational system results in better integration and noticeable employability in job market.



GRAPH 1.2

### Countries with vocational and professional education and training have distinctively lower rates of adolescence unemployment

Rate of unemployment quota amongst adolescence between 15–24 years of age 2012 (in %)



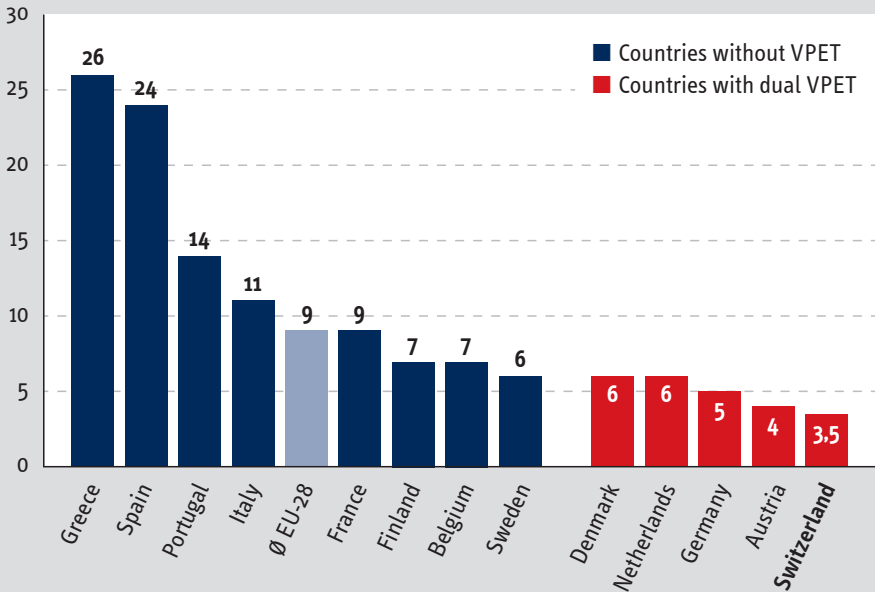
Source: Eurostat/BFS © Strahm/hep verlag

This graph illustrates the youth unemployment quota in industrialised countries with similar economic standards under two different systems: The higher columns indicate that the youth unemployment figures in percentage are far higher among youth without VET/PET (workforce). The darker colour in the columns indicates in total the percentage of unemployed youth between 15 to 24 years. In comparison both show that the five countries with VPET (yellow) have lower youth unemployment. The VEPT is closer to labour market and also permits – different from only full time schooling – the qualification of the practical intelligence. Practical intelligence is the ability to apply and adapt subject oriented knowledge.

GRAPH 1.3

**VPET countries have less unemployed adults**

Unemployment quota of adults, all age groups above the age of 25, Western Europe



Source: Eurostat/BFS © Strahm/hep verlag

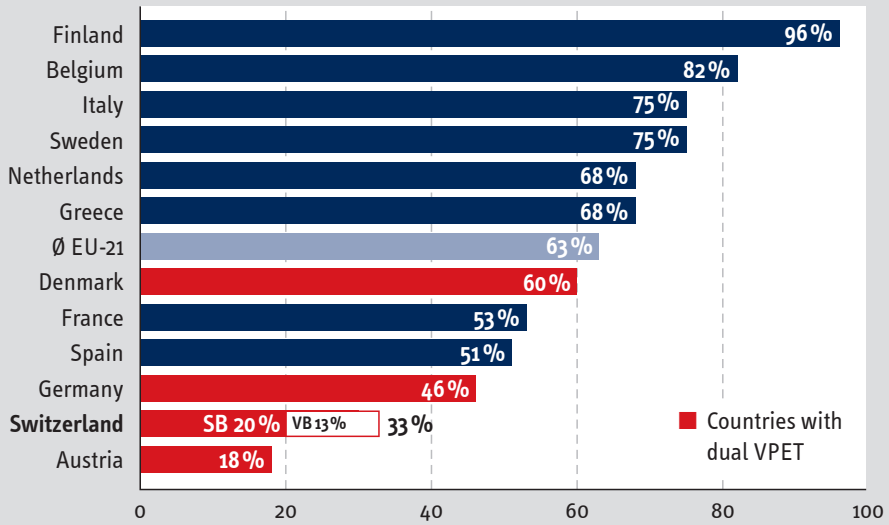
This graph illustrates the adult unemployment quota in comparable industrialised countries in Europe. Not only with the youth but also in all age groups, the five VEPT countries Switzerland, Germany, Austria, the Netherlands and Denmark (Liechtenstein belongs to them as well) have far lower unemployment quota.

Vocational and professional education and in host company training, is deeply and historically rooted in the German speaking European countries and their agglomeration: Since the early industrialisation the guilds (corporations) guaranteed a practical education through an experienced master craftsmen. Consequently Vocational/Professional Education Training System originated out of this industrial in-house training (enforced in Germany and Austria in 1918 and in Switzerland in 1933). Unfortunately, other European countries neither had an in-house practical Education and Training System nor did they consider it highly reputable.

GRAPH 1.4

## Extremely Diverging Matriculation quotas in Europe

Matriculation quotas 2011: Ratio in percentage of adolescence in an age group with access to a higher educational institution (higher education levels), at the Swiss Baccalaureate (SB) and Federal Vocational Baccalaureate Examination (VB).



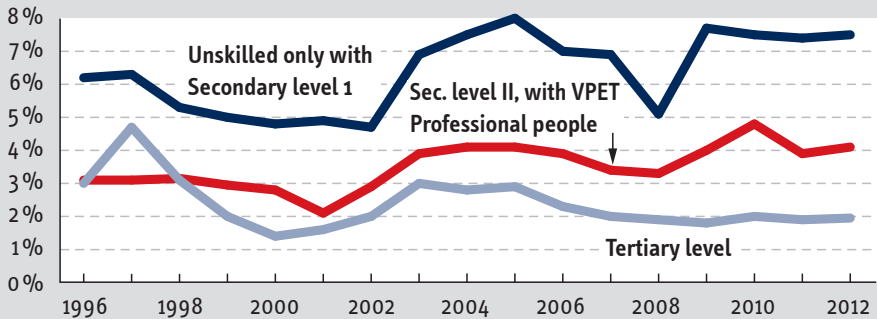
In average in the EU-countries only 63% of youth successfully complete matriculation or similar education qualification (upper secondary graduation/certificate or general programmes in full time schools) ( according to OECD: secondary Level IIA; in England GCE, O-Level and A-Level). At the end of this formal education many young people, unfortunately, are not able to complete tertiary graduation (university or higher Institute of learning) nor are they qualified to be absorbed in the job market. These countries are trapped in their university driven education as their educational system is not labour market oriented.

In the VPET countries (red) the Quota General Programmes is lower than in countries with full-time formal education. 66% of the youth in Switzerland begin their career by successfully completing a pre-vocational and vocational programme. Therefore, only 20% of the youth complete Baccalaureate (full time school) and 12% a professional baccalaureate (in combination with professional apprenticeship).

GRAPH 1.5

## Unemployment among people without vocational education is far higher in every economic cycle

Unemployed quota based on various educational levels, Switzerland 1996–2012



Source: BFS © Strahm/hep verlag

In economic cycles the unemployment amongst people with vocational education is also distinctively lower than amongst people with compulsory education but unskilled. Even lower still is the unemployment from tertiary graduates. In Switzerland the risk of skilled workforce being unemployed is statistically three times lower than the risk of unskilled workforce being unemployed.

Rate of unemployment fluctuates in economic cycles, however, it primarily depends on educational system and its practicality. In absence of practical oriented educational system, even countries with higher economic growth have higher rate of youth unemployment.