

**Legislative Council
of the
Hong Kong Special Administrative Region**

Delegation of the Panel on Education

**Report on the duty visit to Germany and
Switzerland to study the vocational education
and training systems in these two countries**

20 to 26 September 2015

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Chapter 1 - Introduction

Purpose

1.1 A delegation of the Panel on Education ("the Panel") of the Legislative Council visited Germany and Switzerland from 20 to 26 September 2015 to study the vocational education and training ("VET") systems in these two countries. This report presents the main findings and observations of the delegation.

Background

1.2 In his 2014 Policy Address, the Chief Executive highlighted that mainstream education is not a straightjacket that fits all young people as everyone has his or her own interests and abilities. The Government should re-establish the positioning of vocational education in the education system and guide the younger generation in choosing their career. To this end, a series of measures were announced to support the development of vocational education. In June 2014, the Task Force on Promotion of Vocational Education was set up with a view to mapping out a strategy to promote vocational education and raise public awareness of vocational education and recognition of its value.

1.3 On the nurturing of local manpower, the Chief Executive highlighted in his 2015 Policy Address the need to create diversified job opportunities with promising prospects for the younger generation on the one hand, and to provide them with varied learning, training and development opportunities on the other hand. In this connection, vocational education no doubt plays a pivotal role in broadening the learning opportunities for secondary school leavers and in-service personnel as well as nurturing the requisite human capital to support Hong Kong's development.

1.4 The Panel is aware of the entrenched bias among some people in the community in favour of traditional academic pursuits. Some Panel members share the observation that the local education system places excessive emphasis on academic excellence and has failed to provide diversified pathways and choices to cater for the different needs and aspirations of school leavers. Members generally consider that the Administration should collaborate with other stakeholders and actively promote vocational education as an attractive and viable option.

Meanwhile, the Panel notes that in some overseas jurisdictions, VET is widely accepted as an attractive pathway for young people in addition to general academic education. Available information indicates that the VET systems in Germany and Switzerland are highly regarded and have drawn global attention. The relatively low unemployment rate among young people and the dynamic and market-responsive workforce in these two countries are often attributed to their VET systems.

1.5 At the meeting of the Panel held on 11 May 2015, members noted and raised no objection to the Deputy Chairman's suggestion to conduct a duty visit to Germany and Switzerland to study their VET systems. On 3 July 2015, the Panel obtained the House Committee's permission to undertake the duty visit to Germany and Switzerland.

Objectives of the visit

1.6 The principal objectives of the proposed duty visit are –

- (a) to acquire first-hand understanding on the policy aspects and implementation experience (including resources allocation) of vocational education in Germany and Switzerland;
- (b) to study whether and how VET has served as an effective articulation pathway for young people; and
- (c) to study the respective roles of and collaboration between the Government, academic sector, business sector and other stakeholders in the provision of VET.

1.7 Where practicable, the delegation would also like to take the opportunity to learn about the implementation of kindergarten education and integrated education in the two countries.

Membership of the delegation

1.8 The delegation comprised the following Members –

Panel members

Hon IP Kin-yuen (*Deputy Chairman of the Panel and leader of the delegation*)

Hon LEUNG Yiu-chung

Hon TAM Yiu-chung, GBS, JP

Hon CHEUNG Kwok-che

Dr Hon Fernando CHEUNG Chiu-hung

Dr Hon CHIANG Lai-wan, JP

Non-Panel Member

Dr Hon Elizabeth QUAT, JP

1.9 Mr KWONG Kam-fai, Senior Council Secretary, and Miss Phoebe TANG, Council Researcher, accompanied the delegation on the visit.

Visit programme

1.10 The visit programme and a list of the organizations and persons met by the delegation are in **Appendices I and II** respectively.

Chapter 2 – Overview of vocational education and training systems in Germany and Switzerland

2.1 This chapter provides a brief description on the dual-track VET systems in Germany and Switzerland.

Germany

Choice of pathways

2.2 In Germany, young people receive career guidance during their secondary education. Elements of vocational orientation are incorporated in the curriculum of secondary education. To help students acquire career-related information, arrangements are made for them to visit various workplaces, career information centres as well as to receive individual career counselling. A wide variety of web-based resources, such as virtual tours of firms, are available online to enable students to learn more about vocational apprenticeship.

2.3 At about 15 years of age and after graduating from lower secondary schools, the students can choose between academic education or VET. In 2012, about 48% of them took up the vocational stream while 52% pursued the academic stream. There are two categories of VET, namely (a) the dual-track VET which requires the trainees to take up apprenticeship in enterprises and attend public vocational schools; and (b) school-based VET which requires attendance at public vocational schools on a full-time basis without any workplace training. The vast majority (about 75%) of new trainees take up the dual-track VET.

Implementation of the dual-track VET system

2.4 The VET system is underpinned by the *1969 Vocational Training Act*. It provides the legal basis for the German government to regulate the various aspects of the VET system and to safeguard the interests of trainees. The Federal Ministry of Education and Research is responsible for the overall policy on VET and coordinates with the respective ministries for training in various occupations. In 2013, apprenticeship straddled 329 occupations across the manufacturing and service sectors and there were about 1.4 million apprenticeship in Germany.

2.5 All companies in Germany are required by law to be members of their respective business chambers. The chambers are accountable to the government on the implementation of VET. They also play an active part in vocational training in their respective sectors. Each company needs to develop its own workplace training together with their business chambers. In 2013, about 21% of German companies participated in the dual-track VET system offering 564 200 apprenticeship for new trainees.

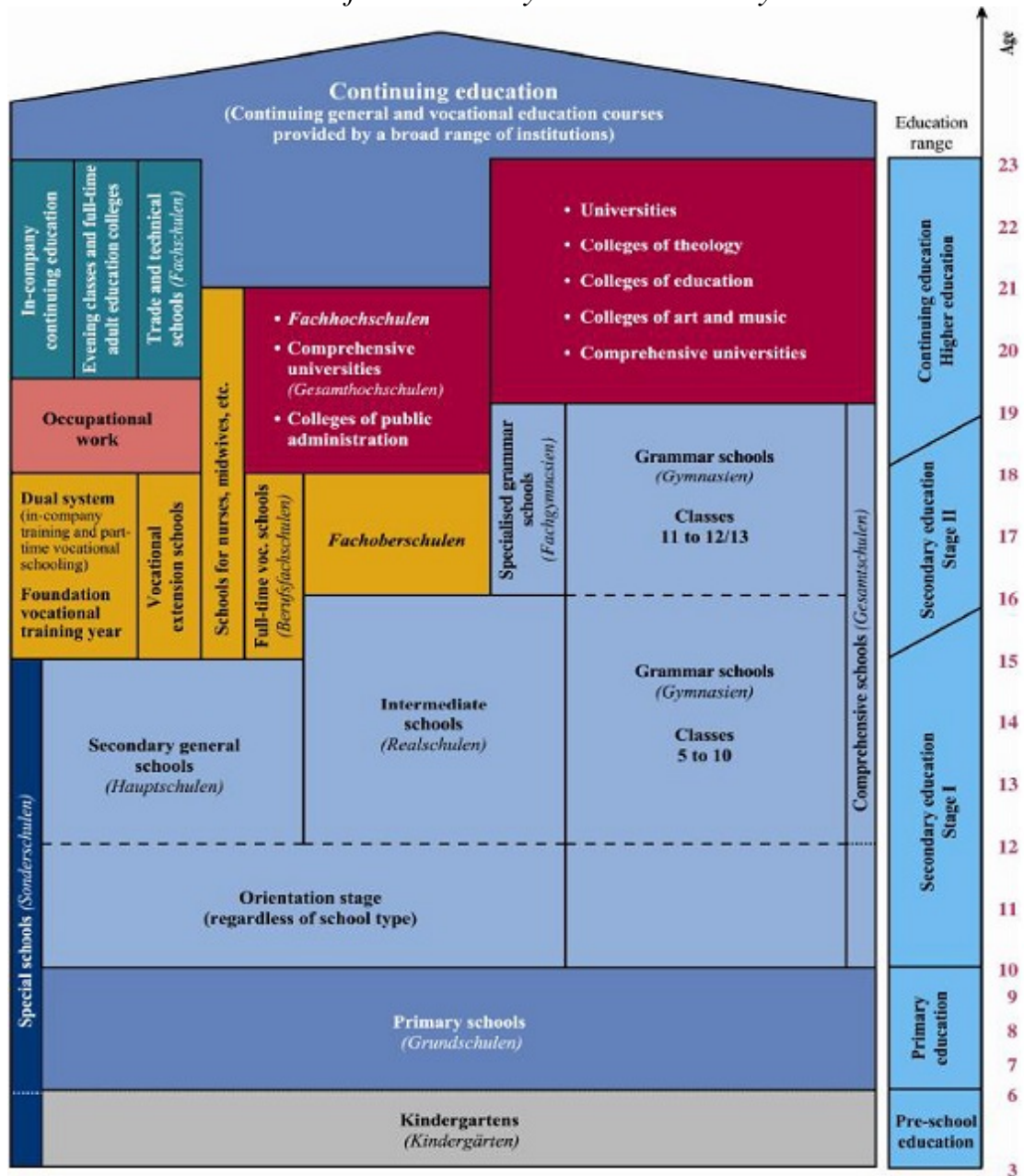
2.6 Under the dual-track VET system, it is necessary for a student to first secure an apprenticeship with an enterprise before he can enrol at a public vocational school. A dual-track VET trainee usually works for the enterprise for three to four days each week and study in a public vocational school for one to two days per week. On average, VET trainees receive a monthly training allowance of EUR795 (HK\$6,734)¹. Apprenticeship usually lasts for two to three years. As for classroom teaching, while 40% of the school work is in conventional subjects like languages, mathematics and science, 60% is in subjects directly related to the chosen profession.

2.7 Dual-track VET trainees are qualified as skilled workers after completion of their apprenticeship and passing the state examination. The qualification thus attained is recognized throughout the country. Each year, about two-third of dual-track VET trainees manage to secure full-time employment with the same enterprises where they have undergone training. Since 2005, VET trainees are allowed to spend parts of their apprenticeship abroad. Trilingual certificates (i.e. German, French and English) are issued to facilitate these VET graduates to work in other European countries.

2.8 Dual-track VET graduates can advance to master craftsman (i.e. Meister) or similar qualifications in their professions, subject to further advanced vocational training provided by their respective business chambers and passing the Meister examination. They can also pursue higher education in universities of applied sciences (i.e. Fachhochschule) or other post-secondary institutes, leading to bachelor or even master degrees. The qualifications attained upon completion of VET in Germany are pegged to the European Qualification Framework, allowing flexibility for VET graduates to pursue higher education and careers both in Germany and abroad.

¹ The exchange rate in January 2016 was EUR1 = HK\$8.47.

Chart 2.1 Overview of education system in Germany



- In some states of Germany, there are variations in the education system from the above pattern.
- The ages shown for attendance at the various education institutions refer to the earliest possible typical entry.

Source: Federal Ministry of Education and Research, Germany; and European Centre for the Development of Vocational Training.

Switzerland

Choice of pathways

2.9 In Switzerland, career guidance to help students make an informed occupational choice is the responsibility of the teaching staff at schools and usually starts in the sixth year of schooling (i.e. about 12 years of age). Afterwards, career guidance sessions are included in the curriculum of compulsory education. Students will visit career centres which provide individual professional career counselling. There are also tools for assessing students' talent and abilities for career advice.

2.10 After receiving nine years of compulsory education, graduates of lower secondary schools have the options of two major pathways for further study, namely (a) the academic baccalaureate education and (b) the dual-track VET programmes integrating workplace training and classroom instruction. In 2012, about 65% of Swiss young people took up the dual-track VET programmes while 35% opted for the academic stream. The less common variety of school-based VET programmes which consist of only class-room instruction without apprenticeship are also available.

Implementation of the dual-track VET system

2.11 The *Federal Vocational and Professional Education and Training Act* and its corresponding ordinances provide the legal framework for the VET system in Switzerland. In addition, the Swiss VET system is collectively governed by the Confederation (i.e. the federal level), the Cantons (i.e. the state level) and professional organizations. The State Secretariat for Education, Research and Innovation ("SERI") of the federal government has policy responsibility over the regulation and funding for vocational and professional education and training. A total of 26 cantonal VET offices are tasked with supervision, coordination and marketing of VET at the state level. In 2012, some 40% of Swiss companies participated in the dual-track VET system providing about 230 000 apprenticeship in 230 occupations across the manufacturing and service sectors.

2.12 Professional organizations in Switzerland (including trade associations, trade unions, training service providers and host companies of apprenticeship) are required by law to participate in the formulation and implementation of the policy on VET. Their involvement starts from the initial stage of training content design till the final stage of

completion of the federal examination. The Swiss VET system is largely led by private-sector initiatives, though with government regulation throughout the process.

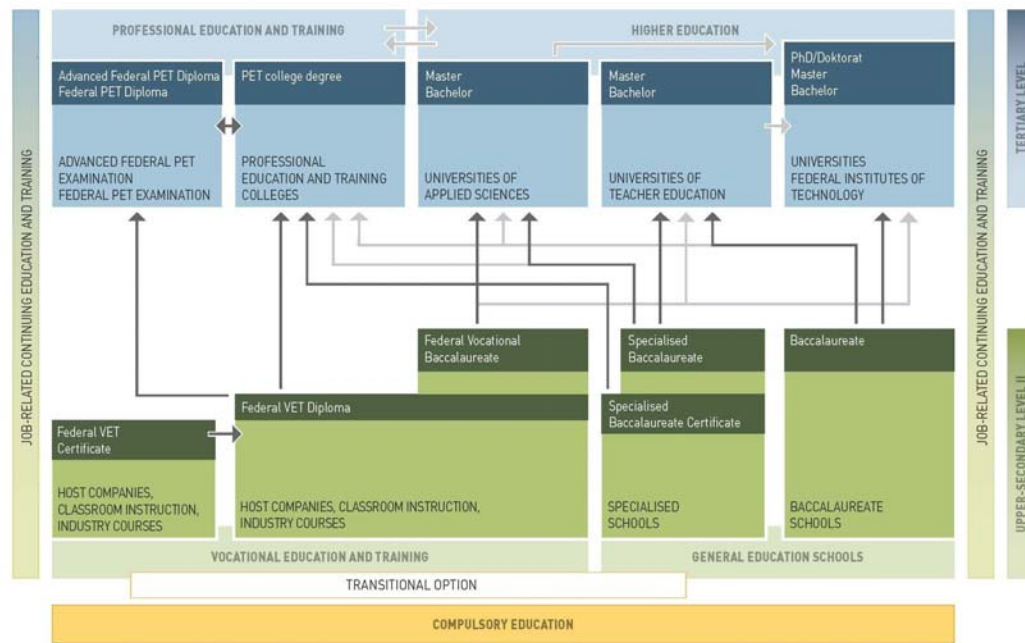
2.13 Similar to the German system, young people have to apply for apprenticeship positions in companies if they wish to pursue dual-track VET in Switzerland. Most of the trainees have to work in the host companies for three to four days each week. At the same time, they need to study vocational subjects and languages in the vocational schools for one to two days per week. VET trainees usually receive a monthly salary of around CHF600 (HK\$4,698)² to CHF700 (HK\$5,481) from their host companies in the first year of their apprenticeship. This will rise to around CHF1,100 (HK\$8,613) to CHF1,200 (HK\$9,396) in their last year of apprenticeship. VET programmes usually last for three to four years and graduates are awarded the Federal VET Diplomas. For students with lower academic learning performance, Federal VET Certificates are offered for practical skills-oriented programmes lasting for two years.

2.14 The Federal Vocational Baccalaureate ("FVB") is an extended general education programme, which can be completed during the three- or four-year VET programmes with additional instruction in general education subjects, or after completion of VET by attending classes at a corresponding institution on a full-time or part-time basis. FVB holders are entitled to enrol in any of Switzerland's universities of applied sciences or obtain an additional qualification for enrolling in cantonal universities or federal institutes of technology. In 2013, 14% of VET graduates obtained FVB qualification.

2.15 Upon completion of training, VET graduates may choose to receive further professional education and training ("PET") at the post-secondary level. PET prepares one to assume demanding roles and responsibilities in a technical specialist and/or managerial position. A PET qualification is equivalent to a university degree which is awarded through a federal examination or by a PET college. There are around 400 federal examinations and 57 professional college degree programmes in eight professional fields under PET. All Swiss universities have adopted the European Credit Transfer and Accumulation System. Hence, the credits attained by the students can gain recognition by institutions in other European countries.

² The exchange rate in January 2016 was CHF1 = HK\$7.83.

Chart 2.2 Overview of education system in Switzerland



Source: State Secretariat for Education, Research and Innovation, Switzerland

Chapter 3 – Institutional framework

3.1 This chapter provides an overview of the institutional framework for the VET systems in Germany and Switzerland. The delegation has visited Frankfurt and Wiesbaden in the German State of Hesse, as well as Bern and Zurich in Switzerland with a view to understanding the systems at the state and federal levels.

Germany

Policy responsibility at the federal level

3.2 The Federal Republic of Germany comprises 16 states (Länder), each with its own executive body, legislature and judiciary. The Federal Ministry of Education and Research has overall responsibility for the policy on VET in Germany, including the operation of the *Vocational Education and Training Act* ("BBiG"). Other important VET legislation includes the *Regulation on Craft Trades* ("HwO"), the *Regulation on Trainer Aptitude*, the *Safety at Work for Young Workers Act*, the *Works Council Constitution Act*, the *Aid for Further Training for Advancement Act* and the *Distance Learning Courses Act*. The relevant legislation regulates arrangements such as the length of apprentice training, the examinations to be carried out by business chambers to test workplace learning, requirements on employers and sector representatives to draw up a specification of workplace learning for each occupation and the transferability of skills across companies.

3.3 The BBiG and HwO provide the legal basis for the Federal Ministry of Economics and Technology, by agreement with the Federal Ministry of Education and Research, to recognize training occupations and issue training directives for these occupations. In collaboration with employers and employees, the Federal Institute for Vocational Education and Training is responsible for setting the criteria and standards for occupations subject to VET training. The National Occupation Standards are the agreed level of competency of a particular occupation developed by the federal government through consultation with the respective business chambers. In Germany, VET covers about 350 occupations in six broad categories of professions ranging from technical to health and management services. According to published information, the most common occupations covered by apprenticeship contracts under the dual-track VET system in 2013 were "retail salesperson",

"salesperson", "office management clerk", "industrial clerk" and "mechatronics technician". As different federal states have their respective areas of excellence, they cooperate with and complement each other in VET services. For example, the delegation has been told that trainees in wine-making from other states may be sent to Bavaria where the best breweries in Germany are found.

VET at the state level

3.4 In Germany, many functions are shared out between the federal government and the 16 states. Individual states are responsible for public-sector schools and education, including vocational schools. They also pass legislation with regard to vocational schools. Each state administers its qualifying VET examinations according to a uniform set of standards so that the qualifications awarded would be commonly recognized in different states. Meanwhile, the Standing Conference of Ministers for Education and Cultural Affairs works to harmonize education policies in the 16 states, including the comparability of qualifications among different states.

State Chancellery of Hesse

3.5 The State of Hesse is situated in central Germany with a population of about six million. Its state capital is Wiesbaden. The Rhine-Main area with Frankfurt as the largest city is the second largest metropolitan region in Germany. The State Chancellery of Hesse (Hessische Staatskanzlei) is the state's highest supervisory authority for education. The Hessian Ministry of Education and Religious Affairs is in charge of overall planning and the administration of the policy on education, such as the educational system, the development of core curricula, the allocation of teaching posts and the design of teacher training and further professional development. General schools, vocational schools and schools for adult education are under the purview of the Ministry. In addition, it is also responsible for issues affecting privately owned schools, German schools abroad and adult education facilities.

3.6 In exchanging views with officers of the Hessian Ministry of Education and Religious Affairs, the delegation has been informed that in the State of Hesse, there are 106 vocational schools staffed by some 8 700 teachers and attended by about 185 000 students. Currently, there are about 100 000 students pursuing VET under the dual-track system in Hesse. Every year, there are about 30 000 to 40 000 VET graduates.



The delegation met with representatives from various Hessian ministries



The delegation and representatives from various Hessian ministries posed for a group photo

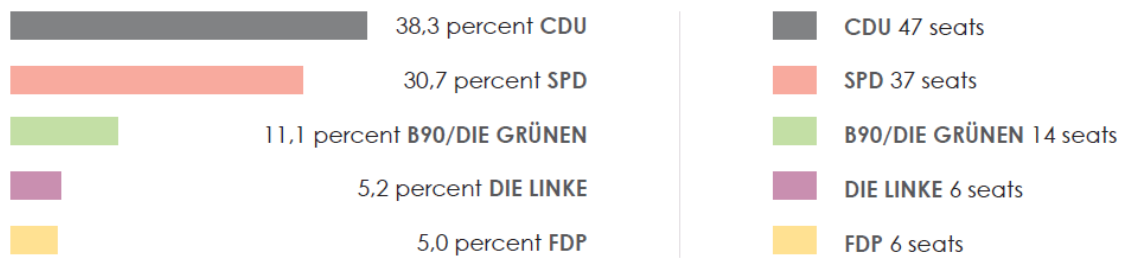
State Parliament of Hesse

3.7 The delegation had the opportunity to visit the State Parliament of Hesse to understand legislators' views on VET. The State Parliament comprises 110 Members, half of whom are returned by the proportional representation method and the remaining half by the first-past-the-post election method. In the last election held in September 2013, no single political party has won sufficient seats to form a majority. A coalition government was formed by the Christian Democratic Union ("CDU") and the Buendnis 90/Die Gruenen.



The delegation visited the State Parliament of Hesse

Chart 3.1 Election results 2013



Source: State Parliament of Hesse

3.8 The delegation has met with the spokespersons on education policy from different political parties. While they may differ in their political stance, they acknowledge the importance of VET, in particular the dual-track approach, as a viable pathway for young people in addition to traditional academic pursuit. Nevertheless, according to the observation of some Members of Parliament, the percentage of young people pursuing VET has dropped in recent years and parents have also become less interested in VET. They consider that the government should improve communication with parents and young people and promote the usefulness of VET.



Delegation members exchanged views with spokespersons on education policy from different political parties at the State Parliament of Hesse

Switzerland

Policy responsibility at the federal level

3.9 Switzerland, also known as the Swiss Confederation, is a federal republic made up of 26 cantons (i.e. states). Each canton has its own constitution, parliament, administration and courts. The vocational and professional education and training ("VPET") system in Switzerland is overseen by two agencies under the Federal Department of Economic Affairs, Education and Research. They are SERI and the Swiss Federal Institute for Vocational Education and Training ("SFIVET"). The *Federal Vocational and Professional Education and Training Act* and its corresponding ordinances provide the legal framework of the Swiss VPET system. In Switzerland, VET programmes covers about 230 different occupations, with some 230 000 trainees. In 2013, the most common occupations for apprenticeship contracts were "commercial employee", "retail clerk", "healthcare worker", "social care worker" and "electrician".

SERI

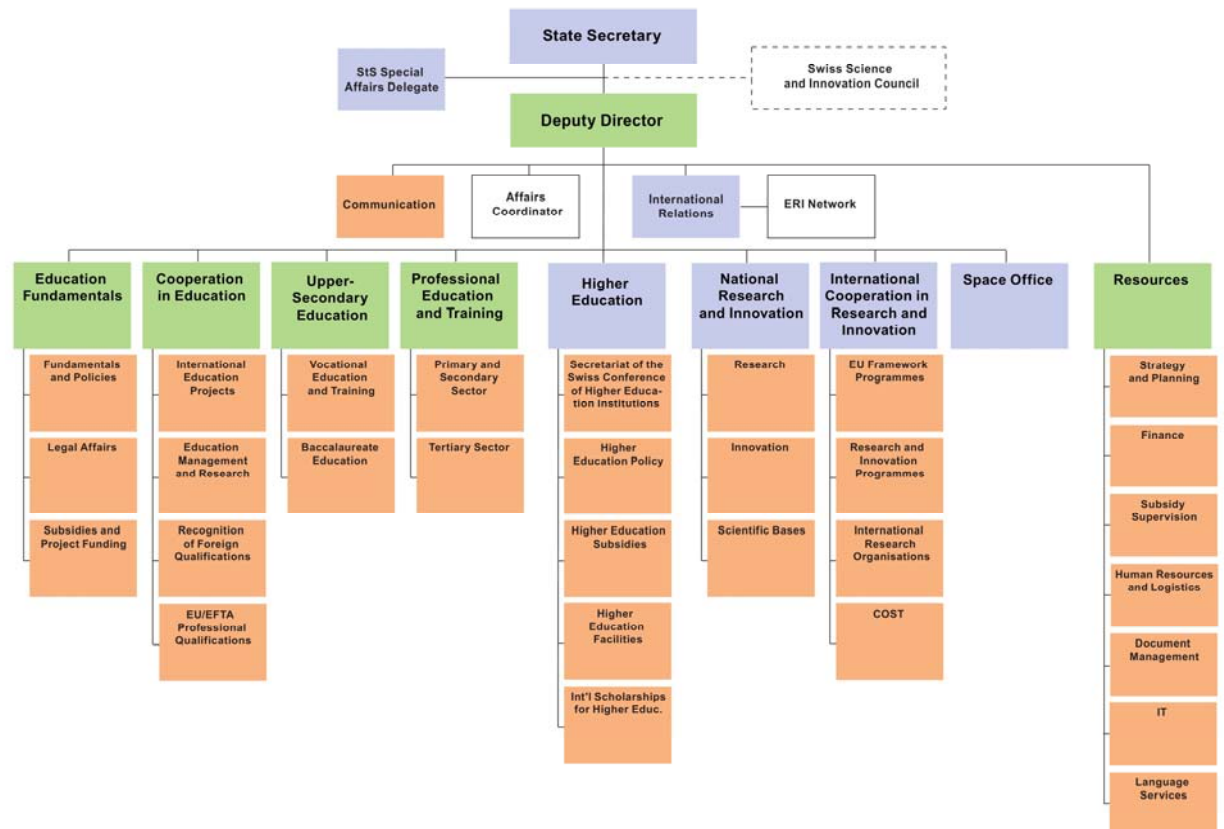
3.10 SERI was set up in 2013 by combining all federal activities on education, research and innovation under one roof. It is the federal government's specialized agency responsible for formulating and implementing the federal policy on education, research and innovation policy. On the area of VPET in Switzerland, SERI is responsible for the regulation, strategy and development of the VPET system. The objective of SERI is to encourage greater recognition of the fact that the investment made in VET today will benefit the society in future. Its major tasks include quality assurance and ensuring the comparability and transparency among the range of training courses, drafting legislation, processing requests for recognition of training programmes and examinations, training VPET professionals and vocational, educational and career guidance counsellors. SERI is also responsible for approving professional associations' proposals to develop new occupations and revise existing ones.

3.11 Headed by the State Secretary, SERI has about 280 members of staff and administers an annual budget of around CHF4 billion (HK\$31.3 billion). In 2013, public expenditure for Switzerland's VPET amounted to around CHF3.4 billion (HK\$26.6 billion), about 25% of which was contributed by SERI at the federal level while the remaining funding came from the 26 cantons.



The delegation met with representatives of SERI

Chart 3.2 Organizational structure of SERI (July 2015)

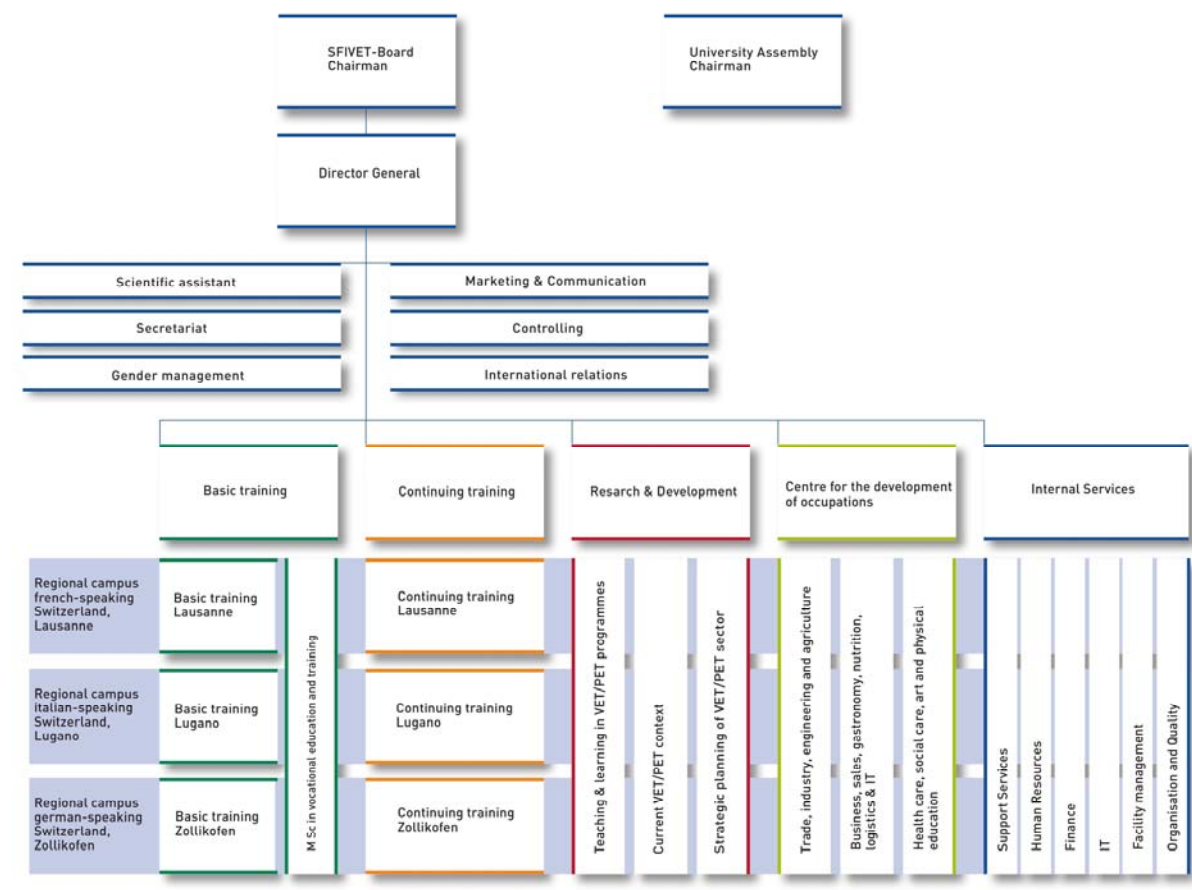


Source: State Secretariat for Education, Research and Innovation

SFIVET

3.12 SFIVET is a federal higher education institution founded in 2007 to replace the former Swiss Pedagogical Institute for Vocational Education, which was first set up in 1972. The mission of SFIVET is to serve as the national centre of competence for the provision of VET and PET, and for the development of professions and VET research. As a national institute, it coordinates, at the federal level, all matters relating to development projects and the basic and continuing training of VET/PET professionals. It also provides coordination between trade associations, professional organizations and hundreds of vocational schools and professional colleges in the 26 cantons. SFIVET has 245 employees and its expenditure amounted to CHF40.9 million (HK\$320.2 million) in 2013.

Chart 3.3 Organizational structure of SFIVET (October 2015)



Source : SFIVET



Delegation members exchanged views with representatives of SFIVET

3.13 SFIVET focuses on four core activities, namely basic training, continuing training, research and development, and development of occupations. It provides basic training (including certificate and degree programmes) to VET teachers and instructors involved in the delivery of VET and PET. Currently, among its students, 1 200 are VET teachers and 200 are VET trainers/instructors. There are 38 students taking the Master of Science in Vocational Education and Training programme. The teacher/instructor trainees of SFIVET attend classes in the Institute on a part-time basis and apply their knowledge to practical use in their respective training schools or enterprises.

3.14 On continuing training, SFIVET offers a wide range of training programmes (including refresher courses and advanced study programmes) for over 10 000 VET/PET professionals and examiners every year. Continuing training courses provide VET/PET professionals with state-of-the-art knowledge and skills that are directly applicable to their day-to-day work.

3.15 Apart from providing training, SFIVET also conducts research projects on issues relating to VET/PET, education science, economics, psychology and sociology. It also conducts VET congress every two years.

3.16 SFIVET provides support for professional associations in developing the training content and qualification procedures as well as preparing relevant VET ordinances and training plans for the new/reformed occupations. SFIVET also provides support in the review of training content and qualification procedures of various occupations conducted by respective professional associations.

The Swiss Parliament

3.17 The delegation paid a visit to the Swiss Parliament in Bern. The Swiss Parliament consists of two chambers of equal powers, the 200-member National Council representing the Swiss population and the 46-member Council of States representing the cantons. Members of Parliament are elected by the people for a term of four years. Parliamentary members in the Switzerland are not divided by political parties, but by parliamentary groups comprising members of the same political party or of parties sharing similar aspirations. Currently, there are seven parliamentary groups in the Swiss Parliament –

- (a) FDP-The Liberals group (Fracziun liberaldemocratica) (41 members);
- (b) Christian Democrat/EPP group (Fracziun PCD/PEV) (44 members);
- (c) Social Democrats (Fracziun socialdemocratica) (57 members);
- (d) Swiss People's Party (Fracziun da la Partida populara svizra) (63 members);
- (e) Green Group (Grüne Fraktion) (17 members);
- (f) Green Liberal Group (Grünliberale Fraktion) (14 members); and
- (g) Conservative Democrat Group (Fracziun PBD) (10 members).

3.18 The Committee for Science, Education and Culture ("CSEC") is one of the nine legislative committees established under the National Council. The Committee comprises 25 members from different political parties. The delegation has met with the President and some members of CSEC, and observed that notwithstanding the wide spectrum of political affiliations present in the Committee, its members concur on the need to provide more resources to strengthen the provision and promotion of VPET in Switzerland.



The delegation and members of the Committee for Science, Education and Culture posed for a group photo



The delegation was briefed on the work of the Committee for Science, Education and Culture while touring the parliament building

VET at the state level

3.19 The Swiss cantons have put in place cantonal ordinances to regulate VPET. The cantons are responsible for the implementation of VPET and the supervision of vocational schools and apprenticeships within their jurisdictions. About 30% of the overall funding on VPET in Switzerland come from cantons.

3.20 The delegation has visited the Department of Education and Vocational Training of the Canton of Zurich to understand how VET is implemented and promoted at the state level. The objective of the Department is to provide educational experience that focuses on both general and specialist knowledge to learners, so they become responsible, competent workers with strong willingness to learn and to perform. It operates a wide range of teaching and learning facilities including grammar schools, 22 VET schools, universities and other institutions for higher education. The delegation was informed that in 2014, the Department worked with more than 13 700 companies to provide about 35 200 apprenticeships, which was about one-seventh of the total number of apprenticeships in Switzerland. The Canton of Zurich has topped other Swiss cantons in the provision of VET.



The delegation received a briefing by the Department of Education and Vocational Training of the Canton of Zurich

3.21 Another major function of the Department of Education and Vocational Training of the Canton of Zurich is to authorize Swiss companies to provide apprenticeships. The delegation notes that upon receipt of an application, the Department would arrange a visit to assess whether the company possesses (a) the ability to deliver the full training content for the specific occupation; (b) qualified instructors (i.e. VET diploma holders with at least two years of working experience); and (c) sufficient workplace accommodation as stipulated by laws. If the assessment is positive, the responsible instructors in the company would also be required to complete a 40-lesson programme before the company can proceed with the apprenticeship. The Department is also responsible for the approval/dismissal and registration of every apprenticeship contract signed between a company and its trainees.

Chapter 4 – Business sector participation

4.1 During its visit, the delegation has learned about the active participation of professional organizations, trade associations and business chambers in the VET systems of Germany and Switzerland. This chapter discusses the roles of these stakeholders in the implementation and development of VET in these countries.

Germany

4.2 In Germany, VET is mainly an extension of its ancient guild-based apprenticeship. In the Middle Ages, guilds of artisans or merchants controlled the practice of their own crafts, including training up new entrants. Over time, this tradition has been succeeded by the formation of employer associations and business chambers.

4.3 Trade associations and business chambers play a pivotal role in the German VET system. All registered companies in Germany are required by law to be members of their respective trade associations or business chambers and to take an active part in occupational training of their sectors. In general, the major responsibilities of business chambers include advising companies, registering trainees, certifying trainers and administering examinations. During its stay in Hesse, the delegation has met with two business associations representing different types of enterprises.

Craft-based industries

4.4 The delegation visited the Welcome Center Hessen which is a joint initiative between the state and federal governments and the Chamber of Skilled Crafts Frankfurt-Rhein-Main (Arbeitsgemeinschaft der Hessischen Handwerkskammern) ("the Chamber") commissioned in July 2013. According to the Chamber, there are about 75 000 establishments in the Hessian craft-based industries taking on some 28 000 VET trainees. There are 130 recognized occupations in craft-based industries in respect of which apprenticeships are offered.



The delegation visited the Welcome Center Hessen to understand its services

4.5 As most establishments in the craft-based industries are small and medium enterprises ("SMEs"), the delegation has exchanged views with the Chamber on the challenges faced by them in providing apprenticeships. As explained by the Chamber, these craft-based SMEs are also required to comply with the legal requirements regulating apprenticeships. Those SMEs which are too small to operate their own facilities can make use of the training centres or workshops set up by their respective trade associations for member companies. In general, VET trainees in SMEs attend 14 weeks of study at public vocational schools, 12 weeks of workplace training and four weeks of training at training centres of trade associations.

4.6 The delegation notes that member companies have to pay a mandatory subscription to their respective trade association or business chamber, the amount of which is calculated with reference to their business revenue. The Chamber has advised that on average, an annual subscription of EUR150 (HK\$1,270) is payable by a member company to its chamber for the purpose of VET. The subscription income thus collected would enable the chambers to take an active role in VET and reduce reliance on the government for financial support.

Commerce and industry

4.7 The delegation has met with the Frankfurt Chamber of Commerce and Industry (Industrie- und Handelskammer Frankfurt am Main) ("CCI"). Established in 1808 to serve the Frankfurt-Rhein-Main economic region, CCI is one of the 80 chambers of commerce serving different regions in Germany. It is a representative of interests and an opinion leader in economic policy issues in the region. It also provides advisory service to about 100 000 member companies. A mandatory subscription is payable by each member company to CCI, the amount of which is calculated with reference to its business performance, including profits. As informed by CCI, it has 220 employees and more than one-third of them are responsible for matters related to VET, which include:

- providing advice to member companies and trainees;
- monitoring the provision of training by companies (e.g. facilities of the companies, qualifications of trainers etc.)
- registration of training contracts;
- administering qualification examinations; and
- participating in the development of training standards and curriculum.



Delegation members received a briefing by representatives of the Frankfurt Chamber of Commerce and Industry

4.8 Representatives of CCI have further explained to the delegation that the duration of a training contract may last for two to three-and-a-half years, depending on the occupation involved. As specified by law, key provisions such as the duration of training, the competence and knowledge to be imparted during the period of training and the examination requirements are stipulated in the contract. Trainees are required to attend classes in VET schools and undergo practical training in their host companies. According to CCI, VET trainees receive a monthly salary of about EUR800 (HK\$6,776) to EUR850 (HK\$7,200) during the apprenticeship period. Trainees have to sit an intermediate examination administered by CCI for testing their level of competence. Upon successfully passing the final examination taken at the end of the apprenticeship period, the trainee will be awarded a certificate issued by CCI as proof of the requisite qualification for the occupation concerned.

4.9 The delegation takes an active interest in ascertaining the factors that motivate the business sector to actively engage itself in VET. In this regard, CCI has highlighted that offering apprenticeships to support VET not only enhances the public image and reputation of the company as a socially responsible corporation, but can also bring about tangible benefits. It is estimated that on average, a company spends about EUR18,000 (HK\$152,460) a year on a trainee under the dual-track VET system. Nevertheless, more than two-thirds of such cost can be recovered through the productive work of the trainee. While the trainees gain practical experience and become acquainted with the operation of their host companies, the employers are also able to observe their performance and potentials during the apprenticeship period. Upon completion of apprenticeship, these trainees are a valuable source of skilled manpower for the companies concerned.

Switzerland

4.10 Switzerland has a long history of occupational training, which can be dated back to the medieval times when guilds controlled entry into the trades and masters passed the job skills to their selected apprentices. In the late 19th century, professional organizations emerged to replace guilds and took over vocational training, with legislative endorsement from the federal government. This unique historical background has set the scene for the participation of professional organizations including trade associations and individual companies in the Swiss VET system.

4.11 Unlike their counterparts in Germany, companies in Switzerland are not required by law to become members of their respective trade associations or business chambers. Professional organizations including trade associations, trade unions, training service providers and host companies of apprenticeships are required by law to participate in the formulation and implementation of the VET policy. Their involvement starts from the design of training content stage till completion of the federal examination.

Commitment of the business sector

4.12 The delegation notes that Swiss companies do not receive any subsidy from the government for providing apprenticeships. According to the Department of Education and Vocational Training of the Canton of Zurich, the VET-related expenditure incurred by the business sector stood at an average of over CHF5 billion (HK\$39.2 billion) per annum, mainly for employment of trainers and experts for the design and implementation of the training curriculum, and for supervision of trainees and assessment of their workplace performance. In 2013, the federal and cantonal governments provided a total of CHF3.4 billion (HK\$26.6 billion) for the operation and maintenance of vocational training facilities. Currently, about 30% to 40% of Swiss companies offer apprenticeships.

4.13 Noting the Swiss business sector's investment in VET, the delegation is interested in understanding the reasons for such commitment. While corporate social responsibility has been put forward as one of the reasons, the Swiss authorities have explained to the delegation that enterprises can also benefit from the apprenticeship arrangements. According to a survey commissioned by the Swiss government, the gross cost incurred by all employers participating in the VET system was CHF5.35 billion (HK\$41.89 billion) in 2009; yet the aggregate output generated by VET trainees was about CHF5.82 billion (HK\$45.57 billion). The net benefit topping CHF470 million (HK\$3,680 million) should serve as incentives for enterprises to participate in VET. Moreover, upon completion of apprenticeship, the trainees are a valuable source of skilled manpower for host companies as well as the relevant industry.

Enterprises of different operating scales

4.14 The delegation notes that in 2014, Switzerland was ranked as the most innovative economy in the world for the fourth consecutive year, as well as the most competitive economy for the sixth consecutive year. A

striking feature of the Swiss economy is the predominance of SMEs making up over 90% of all enterprises in Switzerland, which is quite similar to the situation in Hong Kong. The delegation had the opportunity to meet with the Swiss Federation of Small and Medium Enterprises (Schweizerischer Gewerbeverband) ("the Federation"), which was established in 1879 and by now the largest business association in Switzerland representing the interest of some 300 000 SMEs.

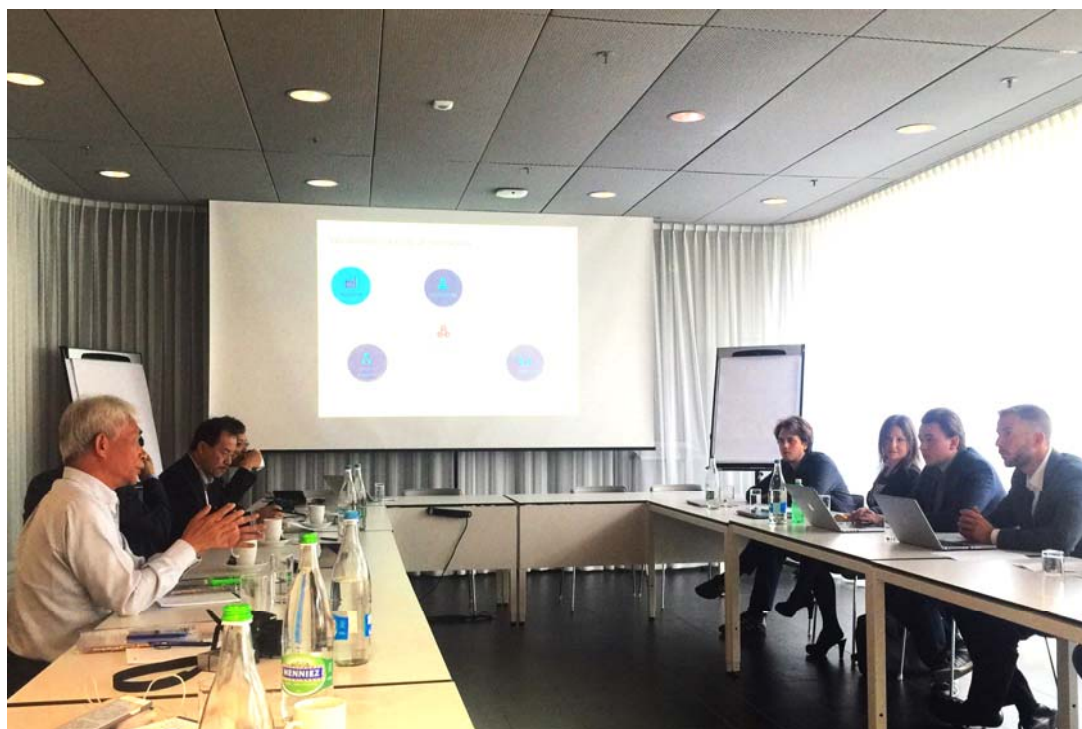


Delegation members discussed the involvement of SMEs in VET with representatives of the Swiss Federation of Small and Medium Enterprises

4.15 According to the Federation, vocational training policy is one of its priorities in striving to support a market and growth-driven SME economy in Switzerland. It is committed to bringing vocational education and academic education on par with each other in terms of status and general recognition; as well as building the capacity of trade and professional organizations in designing and implementing VET. The delegation has been informed that in 2013-2014, the Federation provided 70% of the apprenticeships in 230 occupations in Switzerland. The delegation was impressed by the commitment of SMEs in providing apprenticeship opportunities to young people, and notes that the Federation also plays an instrumental role in designing the training content to keep pace with the changing needs of the industries.

4.16 The delegation has visited Swisscom, a leading telecommunications company offering mobile communications, fixed network, Internet and digital TV services to corporate and residential customers. In 2015, Swisscom has a total of 21 486 employees, about 900 of whom are trainees. It generated a revenue of CHF11.4 billion (HK\$89.26 billion) in 2014.

4.17 In exchanging views with the delegation, the senior management of Swisscom has explained that the company would wish to contribute to the community as a socially responsible company. The trainees not only bring new knowledge, ideas and productivity into the company, they also provide a stable source of manpower for the future development of Swisscom. As a large business establishment, Swisscom offers, through its Apprenticeship Programme, about 250 places each year across six main tracks ranging from Mediamatics, Interactive Media Design to Commercial and Retail Assistants. Swisscom has advised that there is keen competition for apprenticeship places. In selecting prospective trainees, the company places greater emphasis on personality traits of the applicants rather than their academic results.



The delegation received a briefing by Swisscom on its Apprenticeship Programme

Chapter 5 – Experiencing vocational education and training

5.1 To better understand the operation of the dual-track VET systems in Germany and Switzerland and the views of young people participating in VET, the delegation visited a number of training institutions providing different training services and enterprises offering apprenticeships, and talked to the trainees and staff. This chapter describes the key experience in these exchanges.

Germany

Hessian Institute for Advanced Training in Technology

5.2 The Hessian Institute for Advanced Training in Technology (Hessischen Landesstelle für Technologiefortbildung) ("HLFT") is a publicly-run training institution in the State of Hesse. It is mainly involved in providing basic and advanced vocational training programmes, as well as professional training for vocational school teachers. The HLFT offers a broad range of training programmes covering diverse areas, which include business management, computing, electrical engineering, automotive technologies, healthcare, hairdressing, culinary arts and catering.

5.3 The delegation had the opportunity to meet with some students attending a three-year programme on banking. They have already completed upper secondary education and met the requirements for admission to universities. However, they are more interested in pursuing dual-track VET instead of traditional academic studies. Each week, they spend two days attending classes and three days working in host banks. Vocational education is provided to them free and they also receive a salary for working in the banks. According to the trainees, upon completion of the VET programme, they have the options to take up employment in the banking industry; or to continue to study for a higher academic qualification before joining the industry.



A group of banking programme trainees at HLFT
shared their experience with the delegation

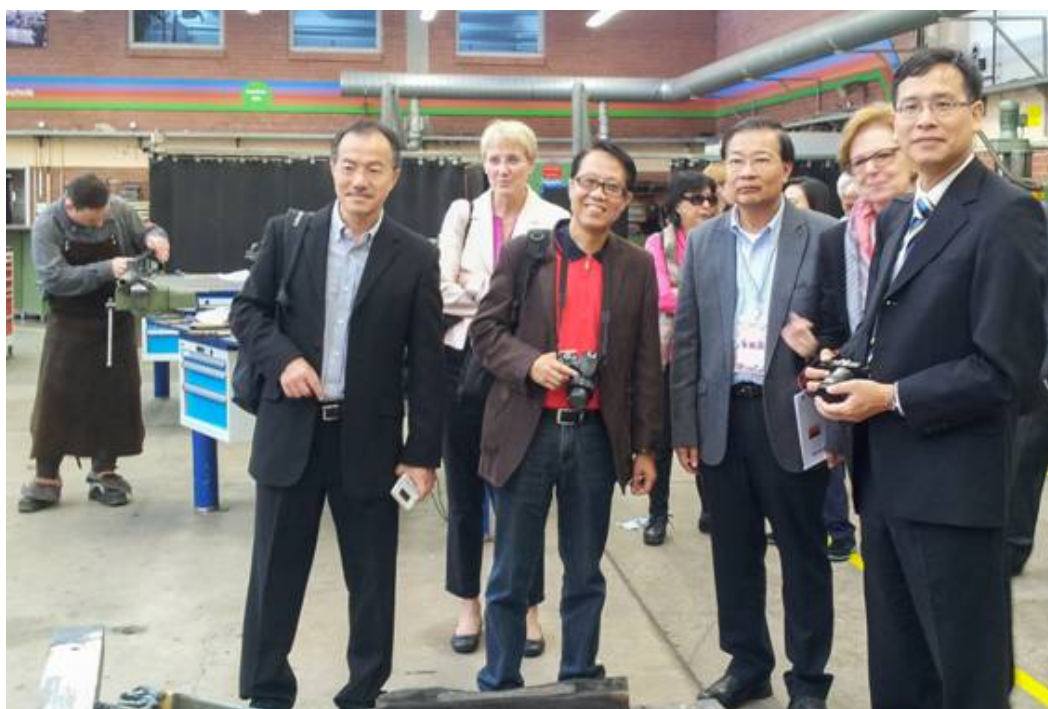


Delegation members talked to a group of electrical work trainees at HLFT

5.4 The delegation has learned from another group of electrical work trainees that there may be difficulties for those students who have only completed lower secondary education to pursue dual-track VET as very often, they are not able to secure apprenticeships in enterprises. To assist these young people, HLFT offers a two-year preparatory course (equivalent to grades 10 to 11 of secondary education) which provides training on basic skills and knowledge of a trade. Upon completion of the preparatory course, the students stand a better chance to find an apprenticeship to enable them to join the dual-track system.

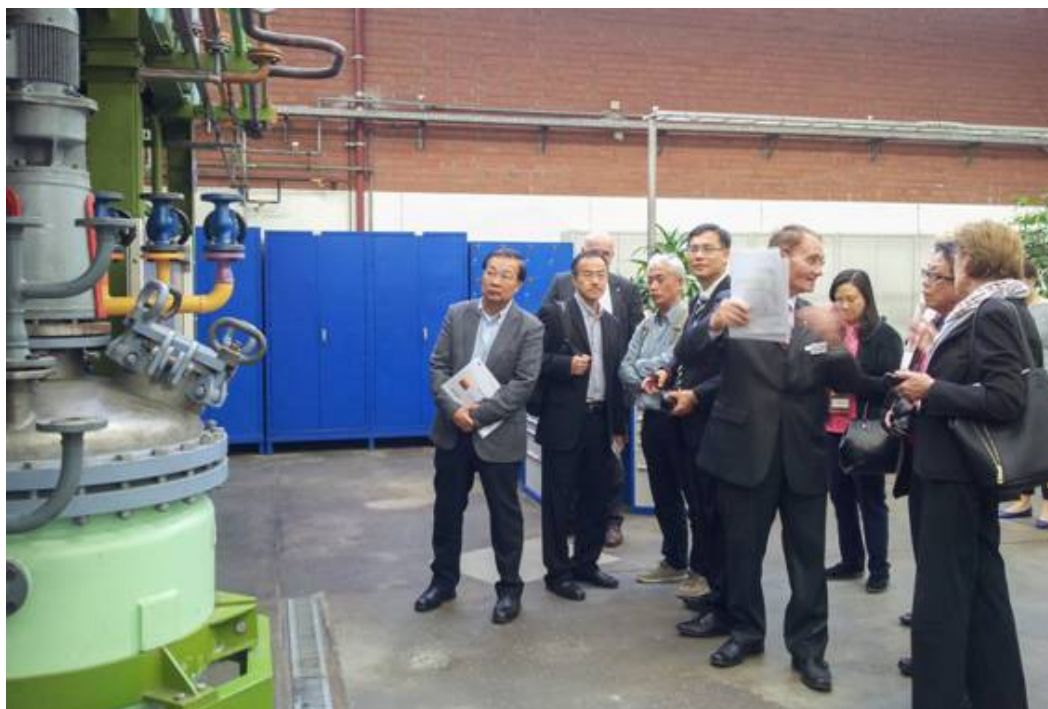
Provadis

5.5 Another institution of interest to the delegation is the Provadis, which is a privately-run vocational training provider located in the Industrial Park Höchst (Industriepark Höchst) ("IPH") in Hesse. The IPH is one of Europe's largest research and production sites for the chemical and pharmaceutical industry housing more than 90 multinational corporations with about 22 000 employees. Provadis offers training programmes covering more than 40 vocations in the areas of business and management, computer science, laboratory technology etc. attended by some 1 400 trainees. Provadis College, a private higher education institution of the Provadis group, offers federally accredited bachelor and master degree programmes.



Delegation members touring the campus of Provadis
in the Industrial Park Höchst

5.6 The delegation is interested in the differences between a publicly-run and a privately-run training institution. Given that under the dual-track VET system, attendance at public vocational schools is free, the delegation has enquired about the reasons why enterprises are willing to pay extra fees for their trainees to attend private vocational training institutions like Provadis.



Delegation members were briefed on the facilities of Provadis
in the Industrial Park Höchst

5.7 According to Provadis, public vocational schools provide general occupational knowledge and skills, and basic theoretical knowledge. However, their curriculum and facilities may not fully address the needs of individual enterprises. Provadis, as a private vocational training institution, offers customized vocational training to trainees to suit the needs of individual enterprises, and prepares the trainees for examinations. About 80% of the training content at Provadis is determined by the chamber of respective trade while about 20% of the training content is tailor-made for individual enterprises. Trainees will spend about 50% of the learning time in their workplace, 25% in public vocational school and 25% in Provadis. Equipped with state-of-the-art laboratories and facilities that are not available in public vocational schools, Provadis provides useful practical training opportunities for trainees. Provadis also provides services for enterprises to recruit and select suitable VET trainees.

5.8 It has been explained to the delegation that both the German government and enterprises are committed to enhancing its human capital so as to support the sustainable development of the economy. Nevertheless, the majority of vocational training institutions are publicly-run. Institutions such as Proবাদis are not commonly found in Germany.

Switzerland

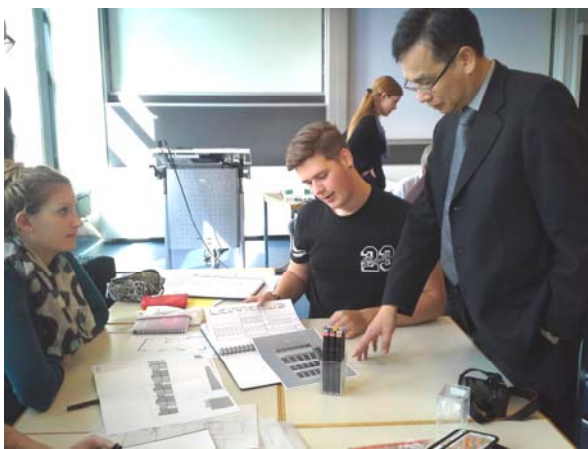
School for Crafts and Construction in Zurich

5.9 The School for Crafts and Construction in Zurich (Baugewerbliche Berufsschule Zurich) ("BBZ") is a publicly-funded cantonal vocational school in the Canton of Zurich. Being one of the largest vocational schools in Switzerland with more than 4 500 students, BBZ offers programmes on vocational education and professional education for construction and building professionals.



The delegation was briefed on the use of different building and construction models at the School for Crafts and Construction in Zurich

5.10 The delegation has met with some students in their third year of study at BBZ. According to the students, they spend one to two days each week at BBZ to learn theories and generic skills, and the other three to four days working in the companies offering them apprenticeships. They find the arrangements under the dual-track VET system highly useful. Not only are they equipped with professional skills and knowledge, they are also able to gain practical working experience and early exposure to the world of work. As informed by some students, the host companies have already indicated that they will be retained as full-time employees upon their completion of apprenticeship next year.



Delegation members talked to students attending different courses at the School for Crafts and Construction in Zurich

Zurich University of Applied Sciences

5.11 Universities of applied sciences were introduced in the 1990s. They mainly focus on applied research and development and provide access to study for professionals who have completed VET with a FVB.

5.12 The delegation paid a visit to the Zurich University of Applied Sciences (Zürcher Hochschule für Angewandte Wissenschaften) ("ZHAW"), which was set up in 2007 by a merger of the Zurich University of Applied Sciences Winterthur with three other institutions in Wädenswil and Zurich. ZHAW is one of the leading universities of applied sciences in Switzerland, with a total of 11 186 students and 500 employees in 2014. It is made up of eight schools specializing in disciplines which include applied linguistics, architecture, design and civil engineering, health professions, management and law and social work. ZHAW provides scientifically-based and practice-oriented degree programmes at Bachelor and Master levels, and a wide range of continuing education and training programmes. Some of its programmes are unique in Switzerland, such as its Bachelor's degree programme in Aviation. It carries out several hundred research projects in collaboration with local, regional and international partners, with a total funding of CHF115 million (HK\$900 million) in 2014.



The delegation was briefed by the Zurich University of Applied Sciences on its aviation training programme

5.13 The delegation has learned that a vast majority of students at ZHAW have completed VET at upper secondary level and possessing Federal VET Diploma and FVB. Students who have completed general education at upper secondary level may also apply for admission if they have gained at least one year of practical experience or completed an apprenticeship in an area of work related to the chosen field of study. Students' performance in ZHAW is rated according to the European Credit Transfer and Accumulation System. The delegation notes that ZHAW provides multiple progression pathways for secondary students to pursue or articulate between academic and VET-related studies.

5.14 The delegation has met with two students who are conducting post-graduate research upon completion of undergraduate programmes in ZHAW. They take a great interest in applied research that can integrate knowledge and practice as well as support the development of the engineering sector. They introduced the delegation to a set of instruments designed by them to obtain data on the structural safety of bridges and roads. They also informed the delegation that a construction company has decided to acquire this product for use in its projects.



The delegation learned about the functions of a set of instruments designed by post-graduate students which have been put into practical use

Training at SFIVET

5.15 During its visit to SFIVET, the delegation has talked to some trainees undergoing VET at SFIVET. On why they have chosen VET instead of further education at universities, the trainees have told the delegation that they find VET more interesting and can better cater for their aptitude and aspiration. The delegation notes that these trainees take pride in pursuing dual-track VET as they are able to earn a reasonable income and acquire hands-on working experience, while their peers are still studying in traditional universities.

5.16 The delegation has also learned that at lower secondary level, students are provided with information on different occupations. They also have the opportunities to participate in work experience programmes to help them better understand their aptitudes and interests in different career fields.

Apprenticeship at Swisscom

5.17 Members have acquired first-hand understanding into the operation of the apprenticeship programme run by Swisscom, a large business establishment. The delegation notes that one of the striking features of the apprenticeship programme at Swisscom is its self-directed nature, which is not commonly found among the programmes offered by other Swiss companies. Each trainee will be under the guidance of a vocational coach who is an experienced staff member in the company. The trainees will apply for participation in projects available on an internal project portal called the MarketPlace with reference to their personalized training plans developed in consultation with their vocational coaches. As a project team member, a trainee is assigned a variety of tasks under the supervision of an instructor. A project usually lasts for six months and each trainee will participate in at least six projects during their apprenticeship with the company. By doing so, the trainees will be able to gain hands-on experience in a wide spectrum of work activities.



Trainees at Swisscom shared their experience with the delegation

5.18 According to the trainees, the practical experience gained at the workplace can strengthen their confidence and better equip them for transition from school to work. Swisscom can also benefit from a home-groomed workforce familiar with the company's operations. The delegation has learned that upon completion of the apprenticeship programme, about 60% of the trainees are retained by Swisscom as full-time employees.

Chapter 6 – Concluding observations

6.1 Members of the delegation have found the duty visit highly useful. In particular, they cherish the opportunity to visit VET-related organizations and facilities in Germany and Switzerland, and to exchange views in person with stakeholders including government officials, parliamentarians, training providers, employers and young people attending different types of VET. Although the experience of Germany and Switzerland may not be readily applicable to Hong Kong owing to the differences in political and socio-economic conditions, the delegation has made a number of observations which can serve as useful reference.

Role of the government

6.2 The delegation notes that in both Germany and Switzerland, the government (both at the federal and the state levels) plays a vital role in the development and implementation of VET. In terms of institutional arrangement and strategic planning, there are dedicated agencies tasked to formulate policies and oversee their execution, such as the Federal Ministry of Education and Research and the Hessian Ministry of Education and Religious Affairs in Germany; SERI and the Department of Education and Vocational Training of the Canton of Zurich in Switzerland. Furthermore, members note that there are clearly articulated policy objectives. For instance, the objective of SERI in Switzerland is to "encourage greater recognition of the fact that the investment made in vocational education and training today will pay dividends in tomorrow's society". The delegation considers the formulation of clear policy objectives very important in enabling a longer-term vision on the development of VET.

6.3 The VET systems in Germany and Switzerland are underpinned by legislation. Relevant arrangements such as the duration of apprenticeship, the obligations and entitlements of employers and trainees and the responsibilities of business chambers and professions are set out in VET-specific legislation. The delegation considers that a proper legal framework, which sets out the necessary requirements and standards for compliance, is very important in safeguarding the interests of all stakeholders.

6.4 The delegation notes that VET is receiving increasing policy attention in Hong Kong, but would look forward to the formulation of clear policy objectives and concrete implementation plans. The

delegation believes that the Administration's formal response to the recommendations of the Task Force on Promotion of Vocational Education³ in due course will shed light on the future direction of VET in Hong Kong. In this connection, it is noted that as announced in the 2016 Policy Address, the Government has accepted all the recommendations put forward by the Task Force. The Panel will continue to monitor the implementation of VET in Hong Kong.

Role of the business sector

6.5 Apprenticeship is an integral part of the dual-track VET system in Germany and Switzerland. Its success relies heavily on enterprises' readiness to provide the necessary training and supervision, time and remuneration for their VET trainees. The delegation has been impressed by the strong commitment of the business community in the two countries. For instance, according to available information, the cost of apprenticeship borne by the private sector in Germany in 2013 was about EUR23.8 billion (HK\$201.6 billion), while the contribution from the public sector was EUR5.7 billion (HK\$48.3 billion) in public vocational education. Meanwhile, the willingness and capability of the business community to create some 230 000 apprenticeships each year is vital to the success of the Swiss VET system.

6.6 The delegation has found that the mandatory requirement on enterprises to be members of their respective business chambers has affirmed the role and responsibility of the chambers as the collective representative of host companies in the German VET system. The professional organizations in Switzerland also have well-defined roles to play in VET. Heavy involvement of the business sector would help ensure that the training content is relevant to the industry's needs and the VET qualifications are well-accepted or recognized by employers.

6.7 If VET is to be more widely promoted in Hong Kong, the delegation sees a need to enlist greater support from the business sector. As SMEs make up over 90% of all business establishments in Hong Kong, the Administration should engage the business community to devise measures to enhance the capacity of SMEs to participate in VET. Steps should also be taken to encourage greater participation of enterprises and non-governmental organizations in the Business-School Partnership

³ The Task Force on Promotion of Vocational Education submitted a report to the Government setting out its recommendations in July 2015.

Programme⁴ and to provide more diversified career exploration activities, such as work experience and job shadowing programmes, for secondary students.

Permeability of the dual-track VET system

6.8 A striking feature of the German and Swiss dual-track VET systems is the permeability between different pathways within the VET system and between VET and academic education. As described in foregoing chapters, there are different levels of VET programmes leading to various qualifications. The VET systems in the two countries allow opportunities for life-long learning. Employees can receive professional continuing training after working for some years.

6.9 The delegation notes that in Germany, students who have completed general education at upper secondary level may pursue VET or university studies. The qualifications attained upon completion of VET are pegged to the European Qualification Framework, which facilitate the trainees to pursue further education and training opportunities at home or abroad. Meanwhile, in Switzerland, upon completion of VET at upper secondary level, graduates may choose to pursue higher education at universities of applied sciences, PET colleges or traditional universities. Students who have completed general education may enrol in universities of applied sciences after they have obtained practical experience or completed apprenticeship in an area of work related to the chosen field of study.

6.10 The delegation is much impressed by the choices and flexibility available to young people in the two countries, in sharp contrast to the education system in Hong Kong which is predominantly academically oriented. With the phasing-out or mainstreaming of prevocational schools, secondary technical schools and skills opportunity schools, there are limited choices available to junior secondary students for pursuing the technical or practical disciplines. The current secondary curriculum only prepares students to take the Hong Kong Diploma of Secondary Education ("HKDSE") Examination. However, there are insufficient publicly-funded undergraduate places for all secondary school leavers who meet the general university admission requirement.

⁴ The Business-School Partnership Programme ("BSPP") launched in 2005 aims to promote better co-operation and closer partnership between the business sector and schools. Through BSPP, enterprises can co-operate with schools in offering a wide range of activities (such as workshops, workplace visits and work experience programmes) for students.

6.11 The delegation recognizes that the German and Swiss VET systems have their unique historical background and have taken many years to develop to their present state. Nevertheless, members consider it timely to re-examine the positioning of VET in the education system of Hong Kong with a view to providing young people with more choices in progression pathways which can lead to competitive qualifications. For example, the Administration may explore the feasibility of suitably revising the New Senior Secondary curriculum to provide students with options in VET or work-based programmes. Successful completion of these programmes will lead to another qualification comparable to the HKDSE qualification for the purpose of seeking admission to tertiary education.

Training for VET teachers and trainers

6.12 The delegation notes that one of the main activities of HLFT and SFIVET in Germany and Switzerland respectively is to provide training for VET teachers and trainers. Under the VET systems of the two countries, there are prescribed requirements for VET teachers and trainers. For example, companies in Switzerland that intend to provide apprenticeships should possess qualified instructors who are VET diploma holders with at least two years of working experience. These instructors are required to complete a 40-lesson training programme for VET trainers. Although due to limited time, members have not been able to conduct a more in-depth study into the training for VET teachers and trainers in these two countries, they share the view that building up the capacity of teachers and trainers and providing them with professional development programmes is an essential link in the implementation of VET systems.

Positive attitude towards VET

6.13 In 2012, about 48% and 65% of graduates of lower secondary schools took up VET at upper secondary level in Germany and Switzerland respectively. VET is by no means a second-choice option for young people. According to the VET trainees whom the delegation has met, most of them have fulfilled the entry requirements for universities but have made an informed decision to pursue VET instead. They take pride in being able to acquire practical working experience while earning a reasonable income. They are well aware of the progression pathways open to them upon completion of training. For instance, they can envisage a better chance of finding full-time employment in their field of training; some may pursue programmes in

universities of applied sciences or other higher education institutions leading to bachelor or master degrees.

6.14 Members are aware that not all young people are academically gifted. It is therefore important for them to understand their aptitudes, interests and aspirations and choose a pathway that can bring their potentials into full play. Although the delegation has not studied life planning education and career guidance service during its visit, members have noted, through exchanges with different parties, that students in Germany and Switzerland have the opportunities to receive career guidance and participate in work experience programmes at lower secondary level. They are given an early opportunity to explore their aptitudes and aspirations, as well as early exposure to the world of work.

6.15 To enable secondary students to better understand themselves and make an informed career choice, the delegation considers that elements of practical work, such as company visits, work shadowing and internship, should be strengthened in life planning education for secondary students in Hong Kong.

Youth employment and the economy

6.16 In 2014, the unemployment rate among young people in Germany aged 24 and below was 7.8%, while the unemployment rate for young people aged 15 to 24 in Switzerland was 8.6%. The relatively low youth unemployment rate as compared to the figure of 22% for the European Union has often been attributed to the VET system in the two countries. The delegation has observed that dual-track VET in Germany and Switzerland has enabled young people to build up working experience while studying, thereby providing a solution to low employability among those who have little or no working experience.

6.17 The delegation notes that Germany and Switzerland have a highly diversified economy, which has created opportunities for VET across a wide spectrum of occupations ranging from mechatronics, process engineering to nutrition and health, and business and management. Hong Kong's externally-oriented economy however is much less diversified, with the service industries making up a major part of its economic base. The delegation believes that if Hong Kong can diversify its economy and create new occupations, the scope of VET disciplines can be widened to cater for the different aptitudes and interests of young people. Pursuit of VET may also become a more attractive option.

Acknowledgements

The delegation wishes to thank all the distinguished individuals, including Members of the Parliament, government officials, academics, representatives of organizations and enterprises as well as trainees and students whom the delegation met during its visit in Germany and Switzerland. The delegation is most grateful to them for their detailed briefings and useful exchanges of views.

The delegation is grateful to the State Chancellery of Hesse, Swiss Federal Institute for Vocational Education and Training, the Consulate-General of the Federal Republic of Germany in Hong Kong and the Consulate-General of Switzerland in Hong Kong for their assistance in drawing up a comprehensive visit programme and providing logistical support.

The delegation also wishes to thank the Hong Kong Economic and Trade Office in Berlin for its advice and assistance on logistical arrangements for the visit. Last but not the least, the delegation expresses its gratitude to staff of the Legislative Council Secretariat for their dedicated support.

Acronyms and abbreviations

| | |
|-----------------------|--|
| BBiG | Vocational Education and Training Act |
| BBZ | School for Crafts and Construction in Zurich (Baugewerbliche Berufsschule Zurich) |
| CCI | Frankfurt Chamber of Commerce and Industry |
| CDU | Christian Democratic Union |
| the Chamber | Chamber of Skilled Crafts Frankfurt-Rhein-Main (Arbeitsgemeinschaft der Hessischen Handwerkskammern) |
| CSEC | Committee for Science, Education and Culture |
| the Federation | Swiss Federation of Small and Medium Enterprises (Schweizerischer Gewerbeverband) |
| FVB | Federal Vocational Baccalaureate |
| HKDSE | Hong Kong Diploma of Secondary Education |
| HLFT | Hessian Institute for Advanced Training in Technology (Hessische Landesstelle für Technologiefortbildung) |
| HwO | Regulation on Craft Trades |
| IPH | Industrial Park Höchst (Industriepark Höchst) |
| the Panel | Panel on Education |
| PET | professional education and training |
| SERI | State Secretariat for Education, Research and Innovation |
| SFIVET | Swiss Federal Institute for Vocational Education and Training |
| SMEs | small and medium enterprises |
| VET | vocational education and training |
| VPET | vocational and professional education and training |
| ZHAW | Zurich University of Applied Sciences (Zürcher Hochschule für Angewandte Wissenschaften) |

Appendix I

Visit Programme

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|--|--|
| 20 September 2015 (Sunday) | Depart from Hong Kong |
| 21 September 2015 (Monday) | Arrive at Frankfurt, Germany |
| | Visit to the Hessian Institute for Advanced Training in Technology |
| | Visit to the Industriepark Höchst |
| 22 September 2015 (Tuesday) | Visit to the State Chancellery of Hesse |
| | Visit to the State Parliament of Hesse |
| 23 September 2015 (Wednesday) | Visit to the Welcome Center Hessen |
| | Visit to the Frankfurt Chamber of Commerce and Industry |
| | Depart for Zurich, Switzerland |
| 24 September 2015 (Thursday) | Visit to the State Secretariat for Education, Research and Innovation |
| | Visit to the Swiss Federal Institute for Vocational Education and Training |
| | Visit to the Parliament of Switzerland |
| | Visit to the Swiss Federation of Small and Medium Enterprises |

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| 25 September 2015 (Friday) | Visit to the Department of Education and Vocational Training of the Canton of Zurich |
| | Visit to Swisscom |
| | Visit to the School for Crafts and Construction in Zurich (Baugewerbliche Berufsschule Zürich) |
| | Visit to the Zurich University of Applied Sciences |
| | Depart for Hong Kong |
| 26 September 2015 (Saturday) | Arrive in Hong Kong |

Appendix II

List of organizations and persons met by the delegation

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| 21 September 2015 (Monday) |
| Hessian Institute for Advanced Training in Technology (Hessischen Landesstelle für Technologiefortbildung) <ul style="list-style-type: none">- Mr Martin GONNERMANN, Director- Mr Wolfgang SIEGEL, Head of Department |
| Provadis (training provider in Industriepark Höchst) <ul style="list-style-type: none">- Dr Udo LEMKE, Managing Director of Provadis- Prof Dr Eva SCHWINGHAMMER, Principal of Provadis College |
| 22 September 2015 (Tuesday) |
| State Chancellery of Hesse (Hessische Staatskanzlei) <ul style="list-style-type: none">- Ms Lucia PUTTRICH, Hessian Minister of European and Federal Affairs- Mr Klaus MÜLLER, Hessian Ministry of Education and Religious Affairs- Ms Carolin FRIEDLÄNDER, Hessian Ministry of Economics, Energy, Transport and Regional Development- Mr Claudio KASPERL, Hessian Ministry of Higher Education, Research and the Arts- Ms Meike USMAR, Hessian Ministry for Social Affairs and Integration- Mr Winfried KRON, Hessian Ministry for Social Affairs and Integration- Ms Wiebke SCHINDEL, Hessian Ministry for Social Affairs and Integration- Ms Elke GROSS, Advisor for International Affairs, Hessian State Chancellery |
| State Parliament of Hesse (Hessischer Landtag) <ul style="list-style-type: none">- Mr Wolfgang GREILICH, Member of Hessian Parliament, Free Democratic Party (FDP)- Mr Daniel MAY, Member of Hessian Parliament, Faction Bündnis 90 / Die Grünen- Mr Christoph DEGEN, Member of Hessian Parliament, SPD-Faction- Ms Barbara CARDENAS, Member of Hessian Parliament, Faction Die Linke |

23 September 2015 (Wednesday)

Welcome Center Hessen

- Mr Karl-Heinz HUTH, Chairman of the Board of Directors of the Federal Employment Agency in Frankfurt
- Mr Alberto CORONADO, representative of the Welcome Center Hessen
- Mr Bernd EHINGER, President of the Chamber of Skilled Crafts Frankfurt-Rhein-Main
- Ms Claudia WESNER, Hessian Ministry of Social Affairs & Integration
- Dr Frank ZERAYOHANNES-BÖLTS, Researcher at Institute for Vocational Training, Labour Market and Social Policy GmbH
- Ms Sigrid BECKER-FEILS, Deputy Manager of a social enterprise, beramí berufliche Integration e.V.

Frankfurt Chamber of Commerce and Industry (Industrie- und Handelskammer Frankfurt am Main)

- Dr Jürgen RATZINGER, Managing Director of the International Division
- Ms Heike WEIDMANN, Deputy Head of Vocational Education Division

24 September 2015 (Thursday)

State Secretariat for Education, Research and Innovation

- Dr Therese STEFFEN GERBER, Head of Cooperation in Education Division
- Mr Jérôme HUGLI, Project Manager of International Education Projects

Swiss Federal Institute for Vocational Education and Training

- Prof Dr Cornelia OERTLE, Director General
- Mr Erik SWARS, Head of International Relations

The Parliament of Switzerland

- Mr Matthias AEBISCHER, President of Parliamentary Committee for Science, Education and Culture ("CSEC")
- Mr Jacques NEIRYNCK, Member of CSEC
- Mr Christian WASSERFALLEN, Member of CSEC

Swiss Federation of Small and Medium Enterprises

- Ms Christine DAVATZ-HÖCHNER, Deputy Director

25 September 2015 (Friday)

Department of Education and Vocational Training of the Canton of Zurich

- Mr Andres MEERSTETTER, Head of the Department of Education and Vocational Training of the Canton of Zurich

Swisscom

- Mr Julien HAUTLE, Head of Talents and Promotion

**School for Crafts and Construction in Zurich
(Baugewerbliche Berufsschule Zürich)**

- Mr Rainer HOFER, Director

Zurich University of Applied Sciences

- Prof Dr Armin ZÜGER, Head of International Relations of the School of Engineering

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