

A SKILLS BEYOND SCHOOL BRIEF ON AUSTRIA, GERMANY AND SWITZERLAND



The *Skills beyond School* study

Across the world, countries are increasingly looking beyond secondary school to more advanced vocational qualification to provide the skills needed in technical and professional jobs. This study addresses the policy challenges arising and builds on the previous OECD study *Learning for Jobs* which examines vocational education and training (VET) policy at upper secondary level. For the purposes of *Skills beyond School*, 20 separate country studies, involving country visits, analyses and published reports, were pursued. Full country policy reviews were conducted in Austria, Denmark, Egypt, Germany, Israel, Kazakhstan, Korea, the Netherlands, South Africa, Switzerland and the United States (with case studies of Florida, Maryland and Washington State). Shorter exercises leading to a country “commentary” were undertaken in Belgium (Flanders), Canada, Iceland, Romania, Spain and Sweden. The country reports outline the main features of national postsecondary VET systems and assess both their main strengths and challenges which need to be addressed. These assessments are supported by illustrations of how other countries have dealt with similar challenges. This brief on postsecondary VET in Austria, Germany and Switzerland was prepared for the launch of the *Skills beyond School* synthesis report in the UK in November 2014.

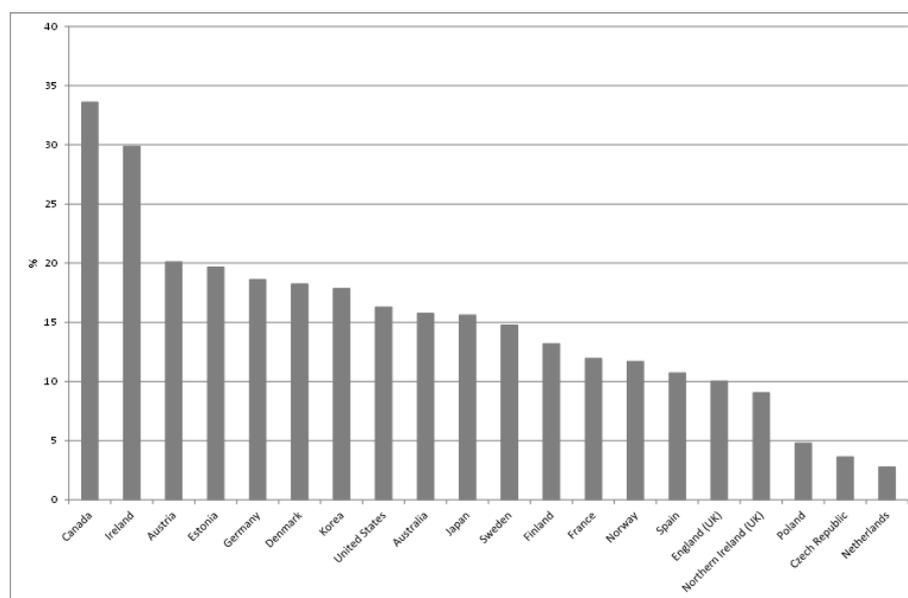
***Skills beyond School* studies in Austria, Germany and Switzerland**

The newly published *Skills beyond School* synthesis report is based on the above-mentioned 20 country studies. Among many other things, the report highlights the many qualities of the well-established high-level postsecondary VET qualifications¹ in the three Germanophone countries Austria, Germany, and Switzerland. These qualifications are important for the national VET ecosystem for at least three reasons: First, these postsecondary qualifications contribute to the attractiveness of VET as aspiring students are aware of the option to pursue higher-level VET upon completion of upper-secondary VET and some years of work experience. As a result, the vocational track is not perceived as a dead-end but as allowing for further education, including professional education and training and even tertiary studies at Universities of Applied Science (*Fachhochschulen*) (UAS). Second, an increasing number of professional, technical and managerial jobs require only one to two years of postsecondary career preparation. For instance, nearly two-thirds of employment growth in the 27 EU countries over 2010-2020 is forecast to fall in the “technicians and associate professionals” category – the category most closely linked to postsecondary VET. Figure 1 is based on data from the 2012 Survey of Adult Skills (PIAAC) and shows the importance of professional education and training in Austria and Germany (Switzerland did not participate in PIAAC)

¹ Henceforth called professional education and training.

(see Figure 1). Of the 20-45 year-olds in Austria and in Germany nearly 20% and 18% respectively held professional education and training qualification as their highest educational attainment (OECD, 2014a). Similarly in Switzerland, 21% of the 25-44 year-olds held such a qualification as their highest qualification in 2012 (OECD, 2014b).² Third, alongside the capacity to work independently and to run their own business, postsecondary VET students in the three Germanophone countries also learn how to train apprentices – a characteristic of these VET systems that contributes to their sustainability and labour market orientation.

Figure 1 Percentage of adults aged 20-45 who have short-cycle postsecondary vocational education and training as their highest qualification



Note: These data identify vocational post-secondary programmes by excluding clearly general academic qualifications (according to field of study) in ISCED 4 and 5B.

Source: Survey of Adult Skills (PIAAC) (2012) in OECD (2014), *Skills Beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264214682-en>

Strengths

Postsecondary VET in Austria, Germany and Switzerland offers avenues of progression that are both attractive to upper-secondary VET graduates and meet labour market demands

Many countries have tried to emulate the dual apprenticeship systems of Austria, Germany, and Switzerland that alternate on-the-job training with school-based education. Such attempts have sometimes failed because of insufficient attention to the institutional context – including the range of further routes of progression. In Austria, Germany and Switzerland, the upper secondary vocational tracks are reinforced by labour-market relevant post-secondary options for their graduates. These career and learning routes help to professionalise the initial occupation by establishing a career structure and routes of progression (OECD 2014a). In Germany, the two main pathways of short-cycle professional education and training include advanced vocational examinations, which effectively link upskilling to recognition of prior learning, and

² The high share of postsecondary VET in Canada and Ireland can be explained by the fact that most and respectively all VET is offered at postsecondary level.

Fachschulen (trade and technical school) qualifications which have a clear value for both students and employers (Fazekas and Field, 2013a). The professional education and training (PET) system in Switzerland is comparably well articulated with upper-secondary VET. It offers progression opportunities for graduate apprentices through professional college (*höhere Fachschulen*) programmes and national professional education and training (PET) examinations that include the Federal Diploma Examination (*Eidgenössische Berufsprüfung*) and the Advanced Federal Diploma Examination (*höhere Fachprüfung*) (Fazekas and Field, 2013b). The Austrian postsecondary VET system is highly diverse with different programmes and institutions offering access to further and higher education (Musset, *et al.*, 2013c). Austria has a range of professional examinations designed to deepen or widen the professional skills of graduates of the apprentice system that resemble the arrangements in Germany and Switzerland. In all three countries, preparation courses for such postsecondary VET examinations are rarely mandatory but most examinees attend them (Musset, *et al.*, 2013c). Austria and Germany both have Master craftsman examinations (*Meisterprüfungen* and *Befähigungsprüfungen/Fortbildungsprüfungen*)³ which entitle individuals to run their own business and train apprentices or respectively, to be promoted in a company. In the Swiss VET system, all examinees of the Advanced Federal PET Examination receive the uniform designation “with Advanced Federal PET Diploma” (*mit eidgenössischem Diplom*). The Swiss Advanced Federal PET Examination reflects the classical progression from apprenticeship to *Meister* level, enabling the examinees to carry out their profession independently, run their own business, and train apprentices. Recently, the scope of this examination type has been widened to include other non-technical professions, in the commercial, manufacturing, agricultural, and service related sectors. These examinations fulfil the need to certify specific professional competencies in legally regulated areas, act as an entry point to the service sector, and are used as a human resources development tool (Fazekas and Field, 2013b). In the United States, for instance, there also exists a large number of industry organised postsecondary vocational qualifications but unlike in Switzerland, they are not subject to government regulation and are not formally recorded as part of the education and training system.

Challenges

Articulation between postsecondary VET and higher education

More systematic measures are necessary to support transition from professional training into academic education

Professional education and training takes place at career crossroads, leading on into different careers and further learning opportunities. The synthesis report argues that in many countries, including Austria, Germany and Switzerland, further efforts are needed to support the articulation of professional training with academic higher education (See Chapter 5 in OECD 2014a, for more information on clearer pathways for learners). Barriers to the transition from professional education and training to academic tertiary education not only inhibit the acquisition of additional skills, but also lower the status of the upper-secondary and postsecondary VET tracks, since students may perceive the vocational track as a *cul de sac*.

In Germany, despite reforms in 2009, there is scope for further measures to open up the route from postsecondary VET to academic higher education. For example, post-secondary vocational institutions (*Fachschulen*) follow standards set up by provincial authorities (*Länder*) ensuring comparability of programmes at the provincial level; but transition to academic programmes remains a challenge (Fazekas and Field, 2013a). The OECD review of Germany recommends the encouragement of credit transfer arrangements facilitating the transition from postsecondary VET to academic higher education (Fazekas

³ The *Meisterprüfung* for those who work in a regulated trade, and the *Befähigungsprüfung* in Austria or respectively the *Fortbildungsprüfung* in Germany in regulated non-craft trade.

and Field, 2013a). Switzerland has opened *Fachhochschulen* (Universities of Applied Science, UAS) to graduates from the dual apprenticeship system at upper-secondary level through the creation of a specific vocational matriculation examination (the *Berufsmaturität*), to be completed in parallel to an apprenticeship programme, which provides access to tertiary education: ca. 12% of all apprentice graduates obtain the *Berufsmaturität* and they represent half of the students in the *Fachhochschulen* (Fazekas and Field, 2013a). Austria introduced a similar exam (the *Lehre mit Matura*) in 2008 (Musset *et al.*, 2013). However, there remain obstacles to transition because of inadequate recognition of professional education and training. For example, while graduates of vocational colleges in Austria can, in principle, start a bachelor's degree in a relevant study programme in the second or third semester, such course exemption depends on individual agreements between institutions and is sometimes absent. In response, many vocational colleges have developed partnerships with academic post-secondary institutions abroad to allow their graduates to earn a professional bachelor's degree in as little as one additional year. To improve access to UAS and universities and recognition of prior learning, the OECD review of Austria suggests establishing a commission to develop an effective articulation arrangement between VET colleges and UAS and to facilitate the access of apprentice and vocational school graduates into tertiary education (Musset *et al.*, 2013). Switzerland faces similar challenges: while the transition from upper secondary VET to UAS is conditional simply on obtaining the *Berufsmaturität*, transitions from professional education and training to UAS are more complex. They generally depend on the varying requirements of specific UAS, even though the Rector's Conference of the Swiss UAS has issued guidelines concerning the admission of graduates from professional education and training into bachelor's programmes. The OECD review of Switzerland therefore recommends improving permeability and collaboration between professional education and training and academic tertiary education (Fazekas and Field, 2013b).

A strong training workforce

A good balance of pedagogical preparation and professional competence needs to be ensured

As in general education, the quality of the teaching and training profession is the most critical element to effective learning in vocational programmes (OECD, 2010). A number of OECD countries are facing challenges in recruiting and retaining high quality vocational teachers who are not only adequately prepared pedagogically, but are also experienced and up-to-date in their professional field. This challenge is often met by relying on part-time working arrangements and directly recruiting practitioners from industry (See Chapter 3 in OECD 2014, for more information on strengthening the training workforce in postsecondary VET).

In Germany, rapid changes in technology and labour market demand make it challenging for *Fachschulen* to keep their workforce skills up-to-date (Fazekas and Field, 2013a). *Fachschul* teachers have demanding qualification requirements which can be barriers for part-timers from industry (OECD, 2014a). In the light of this, the OECD review of Germany recommends that Länder should seek to allow *Fachschulen* the flexibility to employ more part-time teachers and trainers who also work in industry. Full-time teachers and trainers should be encouraged to spend some time in industry throughout their careers to sustain and update their knowledge and skills (Fazekas and Field, 2013a). In Austrian VET colleges, especially in those for engineering, arts and crafts, many teachers work part-time in the industry or have long working experience in industry before becoming teachers. But due to a change of legislation in 1994 it has become more and more difficult to recruit teachers from industry (Musset *et al.*, 2013). In Switzerland, teachers and trainers in professional colleges are well prepared both in their profession and pedagogically. The supply of well-trained teaching staff is underpinned by the high prestige of teaching in a professional college and flexible arrangements to blend work in the profession with teaching. Such part-time teaching arrangements not only allow teachers to keep their job in industry, but also ensure that professional college curricula reflect up-to-date industry requirements (individual teachers typically

develop their own curricula within the framework of the certified curriculum of their college) (Fazekas and Field, 2013b).

Systematic work-based learning

Work-based learning should be made mandatory in all vocational programmes

Work-based learning is a powerful tool to enhance learning, encouraging both the development of hard and soft skills, to link provision more closely to employer needs, to help building local partnerships, and to improve transition from school to work, allowing employers and potential employees to get to know each other. While work-based learning is already an integrated part of the apprenticeship systems in Austria, Switzerland and Germany, the degree of systematic use of work-based learning at the postsecondary level varies.

In Germany's *Fachschulen* a work-based element or workplace learning is so far not extensively employed. The OECD review of Germany therefore recommends making some form of workplace training a mandatory part of the *Fachschulen* curricula and further strengthening the evidence on demand for *Fachschule* provision and encouraging greater flexibility for *Fachschulen* to respond to that demand (Fazekas and Field, 2013a). Similarly in Austria, the mix of provision in VET colleges is largely driven by student demand moderated by *Land*-level co-ordination and planning (Musset *et al.*, 2013). In Switzerland, work-based learning is generally well integrated into PET programmes, with work linked to study for part-time students, and substantial internships for full-time students. Internships are typically for full-time students, mainly in professional colleges, where they form an integral part of the programme. Part-time students typically continue to work in regular jobs alongside their PET studies but in this case, the student's work has to be related to PET studies. Students commonly have to try out techniques, apply concepts learned in the study programme at the workplace, and report back on their experiences (Fazekas and Field, 2013b). The OECD synthesis report recommends that all professional education and training programmes should include some work-based learning as a condition of receiving government funding (OECD, 2014a). The work-based learning should be systematic, quality-assured and credit-bearing. If substantial workplace training were to become a mandatory part of all VET college programmes it would serve as a direct feedback mechanism on each programme (OECD, 2010). Employers readily offer internships in professions with skills shortages and less readily in professions oversupplied in the labour market. This would help to align the mix of training provision with labour market needs.

References and further reading:

- Fazekas, M. and S. Field (2013a), *A Skills beyond School Review of Germany*, OECD Reviews of vocational Education and Training, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264202146-en>
- Fazekas, M. and S. Field (2013b), *A Skills beyond School Review of Switzerland*, OECD Reviews of vocational Education and Training, OECD Publishing, Paris. <http://dx.doi.org/10.1787/20777736>
- Musset, P., *et al.*, (2013c), *A Skills beyond School Review of Austria*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264200418-en>
- OECD (2010), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264087460-en>

OECD (2014a), *Skills Beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris. <http://dx.doi.org/10.1787/9789264214682-en>

OECD (2014b), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris. <http://dx.doi.org/10.1787/eag-2014-en>