

Chapter 3. Pathways and progression for vocational education and training graduates in Estonia

For initial vocational education and training (VET) graduates in Estonia, many learning pathways are open in principle, but rarely travelled. The optional extra year of education that helps upper secondary VET graduates to qualify for higher education attracted very few students each year. This is a major challenge, since the prospect of progression is often the key tool to attract good candidates into the VET track. This chapter gives recommendations on facilitating progression beyond VET into higher education, on developing hybrid programmes within VET schools, and on further developing Estonia's already strong professional examination system.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Introduction

Opportunities for further education are vital for VET graduates

In the past, vocational education and training, in Estonia as in other countries, was primarily designed to train young people for an occupation that they would pursue throughout their working life. But this simple pattern now rarely holds. Rapid change in the labour market, driven by technology, is changing the skillsets required in many occupations, and eliminating some types of job, while also creating other, new job roles. Higher level skills are increasingly in demand. This means that the typical graduate of initial VET will need to upskill and/or reskill during their working lives (OECD, 2014_[1]).

Changes in labour market demands are matched by growing aspirations

The aspiration to higher level qualifications is now nearly universal. For young people with such aspirations, the perception of general upper secondary education as the natural route to university represents formidable competition for any parallel vocational track. In Estonia as elsewhere, this means that the role of initial vocational education has to change. Rather than a dead end, it must be seen as a first step to lifelong learning. Partly this means ensuring that VET programmes, as well as meeting immediate employer needs, include sufficient general skills and education to facilitate further learning. These issues were discussed in Chapter 2. It also means ensuring that VET graduates have a full opportunity to progress into further and higher education. The pathways involved form the subject of this chapter.

A new UNESCO report spells out the importance of progression pathways

A new report from UNESCO (2018_[2]) (Box 3.2) encourages the development of pathways from initial VET programmes to further and higher education. It argues that the development of such pathways serves multiple policy objectives, increasing the attractiveness of initial VET by meeting student aspirations, and removing any perception of VET tracks as dead-ends; helping to meet growing economic demands for higher level skills and qualifications; supporting lifelong learning; and removing wasteful barriers, such as requirements to repeat course material; and improving equity by promoting the access of more disadvantaged groups to higher level programmes. All of these points are relevant to Estonia. The more specific challenge faced by Estonia, which, as discussed in Chapter 2, sets it apart from some other European countries, is the relatively small size of the upper secondary VET sector, with relatively few high-performing students entering VET. This means that the challenge of establishing a well-travelled route from VET to more advanced programmes is often greater in Estonia than elsewhere.

The main challenges

Progression from upper secondary VET to higher education

In principle most pathways are open

Many countries with upper secondary VET tracks, and the Nordic countries particularly, have wrestled with the challenge of whether to permit those with upper secondary VET qualifications to proceed directly to higher education, typically through a common core of general education in both upper secondary and vocational tracks, assessed at the end of both tracks. Such direct access supports the status of the VET track, and its attractiveness. But at the same time it means that the VET track will need to be demanding

academically, so as to prepare students for higher education, and this may promote drop out. This same dilemma was noted in Chapter 2 in relation to the attention given to basic skills in the course of VET programmes. Estonia permit access from vocational upper secondary programmes to higher education, but in practice higher education institutions are selective, and entrants are overwhelmingly from general education.

Few students pursue the additional bridging year to access higher education

Since 2006, an additional one-year bridging course,¹ focusing on theoretical subjects, has been available for upper secondary VET graduates who wish also to prepare for the state examination that grants access to higher education. But few students use it: in 2016 only 21 students started this bridging course, down from 50 in 2010 (Ministry of Education and Research, 2017^[3]). For comparison, in Latvia for example, a similar one-year bridging programme enrolled around 15% of upper secondary VET students, or more than 200 of the students graduating from upper secondary VET in 2013/14 (OECD, 2016^[4]).

There are two reasons why the bridging year attracts few takers in Estonia

First, as noted earlier in this report, upper secondary VET attracts few of the stronger school performers who might naturally expect to continue in higher education (i.e. those with high grade point averages). The second reason is that an extra year in school has a large opportunity cost, because of the wages VET graduates would otherwise receive. In addition, students while studying in ordinary upper secondary VET receive various benefits from the state as students, but they lose those benefits and social guarantees if they pursue the additional bridging year, unless they work. It is therefore unsurprising that a CEDEFOP survey found that 44% of respondents in Estonia said that it was difficult to switch from vocational to general education in their country (CEDEFOP, 2017^[5]). First, as noted earlier in this report, upper secondary VET attracts few of the stronger.

Other progression from VET

Relatively few graduates from any VET programme proceed to the next level

More broadly, few graduates from the different VET programmes proceed to further programmes at a higher level, and many of those who do continue in education do so at the same level. This is true both of those in upper secondary VET programmes, and of those in post-secondary and level 5 programmes (Table 3.1). European Qualifications Framework (EQF) level 5 programmes are a relatively new innovation in Estonia (since 2013). But there is little evidence as yet that they serve as an important route for graduates of upper secondary VET.

Table 3.1. The status of students the following school year after completing a VET qualification

	% (year)			
	Not in education the following school year	In education EQF 4 or below	EQF 5 and post-secondary VET	Higher education
EQF 4 (ISCED 351)	81	7	6	6
EQF 4 (ISCED 354)	82	7	4	7
Post-secondary VET	83	5	4	8
EQF 5 (ISCED 454)	81	2	5	11

Source: Adapted from Ministry of Education and Research (2017_[3]), *Background Report for OECD on Vocational Education and Training (VET) in Estonia*, www.hm.ee/sites/default/files/uuringud/oeed_vet_background.pdf

In Estonia, few VET graduates progress into professional bachelor's programmes

In principle, one might expect VET graduates to be natural candidates for professional programmes in technical universities of applied science (ISCED 1997 5B and ISCED 2011 6, EQF level 6). But in fact, in 2016-17, only 16% of students enrolled in these programmes came from vocational upper secondary education, (including some who studied unrelated occupations) with 80% coming from general upper secondary education. Higher education was made free of tuition fees in 2013, increasing the competition for limited numbers of study places, and therefore raising the threshold of academic attainment required to obtain entry (Ministry of Education and Research, 2017_[6]). In ordinary bachelor's programmes, only 5% of students come from upper secondary VET. This contrasts with experience in some other countries such as Switzerland and the Netherlands, where half or more of the students in universities of applied science come from VET backgrounds. The positive experience in some fields in Norway is relevant, noting that this also involves some adjustment of first year university programmes to ensure that VET graduates receive extra support to develop their theoretical knowledge (Box 3.1).

Box 3.1. Course exemptions in higher education for vocational graduates in Norway

In Norway, some VET graduates can directly enter relevant bachelor programmes. These pathways are available from numerous VET fields of study, and especially within engineering. The students might have an alternative first year in university, often with more theoretical subjects instead of the more practical parts of the programme compared to the other students. Experience from the engineering programmes, which first started accepting VET graduates, have been successful. Reports state that companies often find students with a VET background to be more attractive. Accepting VET graduates into engineering degree programmes is now an important tool used to ensure that Norway trains enough engineers.

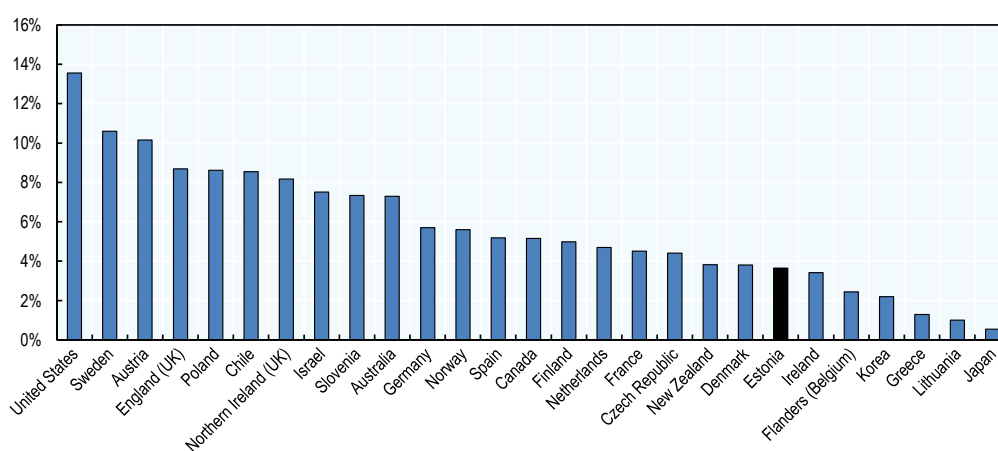
Source: NOKUT (2008_[7]), *Evaluering av ingeniørutdanningen i Norge 2008, Norge. Del 1 hovedrapport*, www.nokut.no/Documents/NOKUT/Artikkelbibliotek/Norsk_utdanning/Evaluering/INGEVA/Rapporter/INGEVA_NOKUT_%20del%201%20Hovedrapport.pdf; Norwegian Ministry for Education and Research (2012_[8]), *Meld. St. 13 (2011-2012) Utdanning for velferd, Norway*, www.regjeringen.no/no/dokumenter/meld-st-13-20112012/id672836/sec4.

Transitions from EQF level 5 programmes to higher education

Graduates from post-secondary VET programmes often wish to progress into linked higher education programmes. In Estonia, graduates of the new (since 2013) EQF level 5 qualification can be granted course exemptions for their previous training on entry to higher education, a right defined at the national level. But it is the individual higher education institution's privilege to assess the individual student and the use of exemptions is therefore variable. Such transitions are common in some countries: at any point in time, more than one in ten graduates of short-cycle professional programmes in Austria, Sweden and the United States are studying at tertiary level (Figure 3.1).

Figure 3.1. In some countries, post-secondary VET graduates often enter higher education

Percentage of graduates of post-secondary VET programmes aged 16-65 studying at tertiary level (5A or 5B)



Source: Calculations based OECD (2015^[9]), OECD Survey of Adult Skills (PIAAC) (Database 2012, 2015), www.oecd.org/site/piaac/publicdataandanalysis.htm.

StatLink  <https://doi.org/10.1787/888933921814>

Recommendations

To address the challenges described, the following recommendations are advanced:

- Recommendation 3.1. Develop a multi-dimensional strategy to facilitate progression from initial VET. This strategy would recognise the need to work with different institutions and programmes across the education system, including career guidance within basic school as well as in VET institutions; building a dialogue with higher education institutions to establish the credentials of VET graduates as potential entrants to higher education; and addressing equity to ensure fair access to post-secondary and higher education by gender, region and mother tongue.
- Recommendation 3.2. Establish, within upper secondary VET, a hybrid programme to prepare students for the state examination offering access to higher education, as well as training them in their VET speciality. This approach would be designed to attract into VET more students with good school performance, and raise the status of VET in general.

- Recommendation 3.3. Building on the existing system of occupational examinations, further develop a higher-level examination system. This would follow the model of the dual system countries in providing higher level VET qualifications, particularly for working adults, for graduates of the initial VET system.
- Recommendation 3.4. Consider the option of a central fund, designed to target areas of specific skills shortage, and groups and regions with particular needs for reskilling, involving partnerships between employers and training providers, using the model of Swedish higher VET.

Analysis and supporting arguments

Establish a multi-dimensional strategy to facilitate progression.

Recommendation 3.1. Develop a multi-dimensional strategy to facilitate progression from initial VET. This strategy would recognise the need to work with different institutions and programmes across the education system, including career guidance within basic school as well as in VET institutions; building a dialogue with higher education institutions to establish the credentials of VET graduates as potential entrants to higher education; and addressing equity to ensure fair access to post-secondary and higher education by gender, region and mother tongue.

Many diverse factors potentially contribute to effective pathways

A very wide range of stakeholders are involved in pathways from VET to further and higher education. A new UNESCO report sets out a range of strategies, backed by country examples that may facilitate progression (Box 3.2). Guidance and information received by basic school students needs to indicate the prospects of progression (see Chapter 4). Initial VET programmes should prepare students for further learning, equipping them (as discussed in Chapter 2) with the range of basic and foundation skills that support further learning. Higher education institutions need to see that it is in their interest to adapt their provision so as to integrate entrants from the VET track, and partnerships between VET and higher education institutions need to be established to ensure mutual credit recognition.

A publicly announced strategy would give a higher profile to pathways

All of these factors need to act together, in a cycle of mutual reinforcement to facilitate progression, ensuring that there is a good fit between initiatives in one sector with those in another. To achieve this end, a focal point should be established within the Ministry of Education and Research to take ownership of a public strategy and co-ordinate the engagement of different bodies in these different initiatives. The existence of a public strategy will in itself be helpful in underlining the fact that upper secondary VET should no longer be seen as a dead end. Within this strategy it could also be guaranteed to vocational students that they would not lose their social benefits if they do the additional bridging year, as it is the case for the time-being.

Box 3.2. UNESCO recommendations for improving pathways between VET and further and higher education

To promote progression pathways through transparency, the report recommends using National Qualifications Frameworks to support transitions; supporting credit recognition agreements linked to learning outcomes; developing systems for recognising prior learning; and offering quality career guidance, backed by data on labour market outcomes, allowing VET students and graduates to identify options for further learning.

To design initial VET to support lifelong learning, and augment it with bridges to more advanced programmes the report recommends building into initial VET programmes a sufficient range of general knowledge and skills, including study skills, literacy, numeracy and digital skills, into vocational programmes and qualifications, equipping graduates with the skills needed to learn throughout their life, formally and informally, and supporting access to further and higher education; and providing optional bridging programmes for VET students allowing them to access further and higher education.

To remove the obstacles and fill the gaps in post-secondary provision the report recommends widening participation in higher and further education, thus allowing more access for VET graduates, broadening entrance criteria to give full recognition to VET and practitioner competences alongside academic skills; developing shorter post-secondary vocational programmes; and meeting the needs of adults through flexibility in time scheduling, and making full use of modern information and communications technology.

Source: UNESCO (2018^[21]), Pathways of Progression: Between Technical and Vocational Education and Training and Further and Higher Education.

The higher education community will need to be convinced of the strategy

Work with higher education institutions, individually and collectively, will be a critical part of the strategy, and potentially the most challenging. These institutions may not always welcome entrants with VET backgrounds, either because they believe that VET programmes have inadequately prepared students for the more academic demands of higher education, or because VET has come to signal low ability in the entrants to that track. But higher education can draw strength from a diversification of the student mix through an intake of vocationally trained students. While universities have always sought excellence, such excellence includes practical and vocational knowledge and skills, as well as more abstract and academic skills. Achieving this vision will require dialogue with the higher education community.

Enhance access to higher education from upper secondary VET

Recommendation 3.2. Establish, within upper secondary VET, a hybrid programme to prepare students for the state examination offering access to higher education, as well as training them in their VET speciality. This approach would be designed to attract into VET more students with good school performance, and raise the status of VET in general.

Hybrid programmes blend VET and general education

Many countries across Europe are establishing hybrid programmes, that offer from the outset within the frame of a single upper secondary programme, both a route to a vocational qualification and a qualification for entry into higher education (Deissinger et al., 2013_[10]). The advantage of hybrid programmes is that they allow students to enter the VET track without abandoning the prospect of a direct route to higher education offered by general education. The disadvantage is that it is difficult to encompass, within a single manageable programme, both the requirements of a vocational specialty, and the general academic requirements to pass an exam to enter higher education. Many countries have felt the advantages outweigh the disadvantages, not least because hybrid programmes provide a powerful means of attracting into VET the stronger-performing students who are often attracted to higher education, and would, in the absence of the hybrid option, not consider entering the VET track.

In Estonia, a hybrid programme would attract high-performing students into VET

In Estonia, the arguments for a hybrid programme are compelling. Progression from upper secondary VET to higher education is low by international standards, and few of those with strong school attainment enter upper secondary VET. This suggests that there would be demand for a hybrid programme among those who currently pursue general upper secondary education. Experience with one hybrid programme – the Danish EUX programme – suggests that such programmes can effectively attract students with intermediate level school attainment (Box 3.3).

A hybrid programme would be demanding

Practically, such a hybrid programme, as in other countries, would have to handle the challenge of including both the general education and vocational requirements in a single programme. This would most likely mean a heavier workload and intensity of the programme relative to ordinary upper secondary VET, and partly some increase in its overall length relative to a standard VET programme. Different modes of study might be explored for the additional requirements – for example through evening, weekend and holiday courses, and different forms of e-learning, so as to be fitted around the normal routine of a VET programme.

Box 3.3. The EUX hybrid programme in Denmark

The EUX programme was launched in Denmark in 2010 as a means of improving the attractiveness of VET by encouraging the link between VET and higher education. EUX combines a three-year gymnasium general upper secondary education and a four-year apprenticeship in a single programme. EUX is normally four years and a few months in length, with some variability between fields of study. It is a demanding programme, since the students must follow two curricula, so it will only become a small part of the Danish VET system (2% of students in 2013-14). An evaluation has shown that it can attract a group of mid-performing students into VET. These are students with a stronger academic performance than most VET students, but not as strong as the strongest gymnasium students.

Source: Ramboll (2017^[11]), *Evaluering af EUX – endelig rapport*, www.dpt.dk/wp-content/uploads/2010/06/170315-Evaluering-af-eux.pdf; Jørgensen, C. (2015^[12]), *Recent Innovations in VET in Denmark. Responses to Key Challenges for VET*, http://nord-vet.dk/indhold/uploads/report1c_dk.pdf.

International experience could guide the Estonian approach

Switzerland, for example, has been relatively successful at opening the technical universities of applied science to vocational graduates, through a special optional general education qualification (*Berufsmaturität*) that provides access to tertiary education. This qualification can be pursued alongside regular upper secondary apprenticeship through one day a week of study. More than 10% of VET students now obtain this qualification, and VET graduates now represent around half of the students in the universities of applied science (Nikolai and Ebner, 2011^[13]; Hoeckel, Field and Grubb, 2009^[14]).

Develop a higher level examination system

Recommendation 3.3. Building on the existing system of occupational examinations, further develop a higher level examination system. This would follow the model of the dual system countries in providing higher level VET qualifications, particularly for working adults, for graduates of the initial VET system.

Estonia already has a well-structured system of occupational examinations

Estonia's established system of occupational qualifications and examinations has great strengths, rooted as it is in sector skills councils which construct the qualifications in line with labour market needs and an established framework for managing the examinations, by franchising an examination body for five years to undertake each examination. The examinations are flexible, such that they are applicable to those who have completed a formal programme of study, for example in upper secondary VET, as well as to those who have acquired their occupational skills more informally, and wish to have them formally certified through the examination.

In several countries professional examinations play a key role in progression from the initial VET system

In the dual system countries in particular, professional examinations are widely used as a means of providing higher level vocational skills in individual professions to graduates of the initial VET system (see Box 3.4 for an example from Germany). Typically graduates in a vocational field, after some years of working in that field, might pursue the examination. These examinations serve an important role, alongside other pathways of progression for vocational graduates.

Box 3.4. Advanced vocational examinations in Germany

Advanced vocational examinations are typically pursued after the completion of upper secondary vocational training (such as apprenticeship) and some years of relevant work experience, and reflect the classical progression from apprentice to Meister. Meister examinees must show that they can pursue their profession independently, run their own business and can train apprentices. These qualifications are now available, not only in technical professions but also in agricultural, commercial, manufacturing, and service-related sectors. The certified senior clerk (*Fachwirt/in*) rose in popularity by 45% between 2003 and 2010 to become the most common advanced vocational examination, followed by the certified industrial supervisor (*Industriemeister*) and the master of skilled trade (*Handwerkmeister*). The federal and the chamber regulations define admission requirements, examination arrangements and pass criteria. Boards of experienced examiners include equal numbers from the employers' and the employees' side and at least one vocational school teacher. Preparatory courses for examinations are not mandatory, but candidates almost always attend either part- or full-time courses offered by the chambers or private providers (of which there are over 15 000).

Source: OECD (2014_[11]), *Skills beyond School: Synthesis Report*, OECD Reviews of Vocational Education and Training, <http://dx.doi.org/10.1787/9789264214682-en>.

In Estonia, the occupational examinations can be used to upskill

The OECD team were told that it is already possible in Estonia to use these examinations as a means of upskilling graduates of the initial VET system. Unfortunately, this route is not extensively publicised, and not used extensively. These higher level vocational qualifications are neither widely recognised nor well rewarded in the labour market. Individuals have to pay for these examinations and any preparatory training that they need to undertake these examinations. By way of comparison, in Switzerland, 60-80% of the costs of this type of examination are paid by government (Swiss Confederation, 2016_[15]).

The use of higher level professional examinations could be promoted

For adult graduates of initial vocational education, higher level professional examinations have much to offer. These graduates will usually be in employment and therefore need programmes of further learning that can recognise their work experience, and build on it

in a flexible way through evening or weekend courses consistent with work and family responsibilities. This will usually be a more practical and efficient way of developing their professional career than a full-time, or even a part-time regular education and training programme. Estonia might therefore usefully promote such programmes. Practical steps might include providing some funding subsidy in support of these examinations, as in Switzerland. A clear recognisable name for such examinations/qualifications would also help to establish their profile and visibility. In Switzerland they correspond to Swiss Federal Diplomas and Advanced Swiss Federal Diplomas. The Meister title is also used for some of these examinations in the German-speaking countries.

Consider the option of a central fund to support specific skills needs

Recommendation 3.4 Consider the option of a central fund, designed to target areas of specific skills shortage, and groups and regions with particular needs for reskilling, involving partnerships between employers and training providers, using the model of Swedish higher VET.

One risk in the Estonian VET system is that provision may not match labour market need

The new OSKA measures of labour market requirements should, in principle, guide the mix of upper secondary VET provision, but this is limited by pressure to offer students their choice of fields of study, partly out of an understandable concern that if they do not obtain their choice, they might drop out. At post-secondary and higher education level, student choice is often the key driver of provision. This means that there are risks that the VET system will not be sufficiently responsive to emerging skills shortages, in a context in which employer surveys suggest that such shortages are often a key barrier to growth (OECD, 2017^[16]).

A central fund might help to tackle skills shortages

Alongside the risk of specific skills shortages, often in particular regions, some groups of adults may need upskilling and reskilling. One way of handling such specific skills gaps would be to establish a central fund to address them. The fund would support partnerships between training providers (which could be a variety of institutions) and employers to deliver specific occupational qualifications identified as being in shortage. This would follow the successful Swedish model of higher vocational education (Box 3.5). In each case it would be up to the partners to provide a planned programme to deliver the skills required for the occupational examination. The costs of the examinations would also be met from this fund.

Box 3.5. The Swedish system of higher vocational education (HVE)

Higher vocational education (HVE) was established in 2001 with enrolment increasing rapidly to reach 31 000 (compared with 140 000 enrolments in professional bachelors and masters programmes). Most programmes require between six months and two years of full-time study with 70% of programmes lasting two years. There is demand from students, support by employers, and interest among bodies wishing to run courses. 80-90% of graduates report being in work one year after graduation. Many different bodies can provide HVE if they comply with the established requirements. In 2011, out of 242 institutions providing HVE, roughly half were private while the rest belonged to local and regional authorities. All HVE programmes are publicly funded, with no tuition fees. The model fosters a bottom-up and entrepreneurial approach within a publicly funded framework. Workplace training is obligatory in two-year HVE programmes and represents one-quarter of the programme duration.

This structure builds partnership with employers into the design of the system, since it is only possible to seek funding for an HVE programme when a partnership with employers willing to offer the workplace training is already in place. Each HVE programme has a steering group including employers: employers provide training to students and advise on provision and programme content. To launch a programme an education provider has to show that there is labour market demand for the skills provided by the programme, and that it has a framework to engage employers. The National Agency for Higher VET is responsible for the sector, and the social partners are part of a council that advises the agency on the future demand for skills and on how this might be met.

Source: Kuczera, M. (2013_[17]), *A Skills beyond School Commentary on Sweden*, www.oecd.org/edu/skills-beyond-school/ASkillsBeyondSchoolCommentaryOnSweden.pdf, Ministry of Education and Research Sweden (2013_[18]), *Background Report from Sweden, Skills beyond School*, www.oecd.org/edu/skills-beyond-school/SkillsBeyondSchoolSwedishBackgroundReport.pdf.

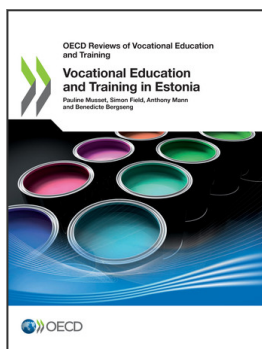
Note

¹ The optional extra year is not mandatory for entering higher education. It is simply an opportunity to prepare for state examinations that take place at the end of upper secondary education and that are required by some higher education institutions. Upper secondary VET students can also prepare for state examinations during the course of their studies by selecting non-compulsory general subjects.

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