

Background report for OECD on vocational education and training (VET) in Estonia

Description of VET

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1. Scope: programmes

1.1. General introduction to the education system

For the general introduction to the education system, please see the Country overview in Eurydice <https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Estonia:Overview>

1.2. General introduction to VET programmes

After the basic school (põhikool) ⁽¹⁾, although students have finished compulsory education, they will usually decide where to continue their studies, whether to opt for VET or go to a general upper-secondary school (gümnaasium).

Until 2013 when the new VET institutions act and vocational education standard ⁽²⁾ came to force, programmes were classified according to entrance requirements. Learners could apply for the following programmes:

1. VET without basic education requirement – for learners over minimum school-leaving age (17 years), who lack basic education. There were no entrance requirements regarding the education level. All who had dropped out of basic school at whichever grade were welcome. Obtaining basic education simultaneously, or after completing the studies, was not compulsory, yet it was an option.
2. VET after basic education – the prerequisite to start studies was completion of basic education. The graduate did not receive general education competencies at upper-secondary level.
3. 'Upper-secondary VET' – the prerequisite to start studies was completion of basic education and the graduate could proceed to higher education upon completion.
4. Post-secondary VET – the prerequisite to start studies was completion of upper-secondary education.

The previous system focused on input, i.e. the required education level for entrance. The new system is outcome-based, as the programmes are classified according to their levels in the Estonian Qualification Framework (EstQF), which corresponds to the European Qualifications Framework (EQF). See subsection 1.5 for more information on such programmes. Although the entrance requirements remain, the outcome or the qualification level that the graduate achieves, is more important. The new system also allows for more flexibility in programme provision.

VET is provided in the framework of formal education system (tasemeõpe) to acquire a qualification corresponding to a certain qualification level and which enables access to the studies at the next qualification level, and also as non-formal training (täiendusõpe), to

⁽¹⁾ A name for the lower-secondary level school, the completion of its programme fulfils the compulsory education (basic education) requirement.

⁽²⁾ Vocational education standard is a set of common requirements for lower-, upper-and post-secondary level VET.

acquire single competencies. Formal education can be divided into initial VET (IVET) and continuing VET (CVET).

Formal VET studies can be conducted in the form of full-time or non-stationary ⁽³⁾ study. In case of full-time study, the learner's independent work forms less than one-half of the curriculum. In case of non-stationary study, the learner's independent work must be more than one-half of the study load.

Full-time study is divided into school-based or workplace-based form of study (apprenticeship). In case of school-based form of study, work-based learning (practical workshops at school and work practice at enterprises) shall constitute at least one-half of the curriculum. In case of apprenticeship training, at least two-thirds of a curriculum must take place at the enterprise. Another distinguishing feature of apprenticeship is the tripartite contract between the school, the workplace and the apprentice.

In the national context, the term 'upper-secondary VET' (kutsekeskharidus) is used primarily for programmes where the learner acquires upper-secondary education with vocational and professional competencies, i.e. VET is combined with upper-secondary general education. These programmes are designed for basic school graduates and lead to VET as well as general education qualifications at EQF level 4 upon graduation. In this report, we will use this term in inverted commas to refer to such programmes. Please refer to 1.4.3 for further information.

For the purposes of this report, we will provide a full overview of all formal programmes in VET, leading to qualifications at EQF levels 2-5. Technically, programmes leading to EQF level 2-3 qualifications are not upper-secondary programmes, but they are open to basic school graduates nevertheless. VET at upper-secondary level is provided in the following narrow fields of study: Arts; Information and Communication Technologies; Environment; Agriculture; Forestry; Veterinary; Fisheries; Personal Services; Security services; Transport Services; Engineering and engineering trades; Manufacturing and processing; Architecture and construction; Health; Welfare; Business and Administration. Please refer to Appendix 1 for VET provision by fields of study.

VET studies end in achieving the learning outcomes described in the curriculum for a qualification or a partial qualification, assessed by a professional examination, drawn up by employer organisations. If it is not possible to take such an examination, which is the case for some specialties, studies can be completed with a comprehensive graduation examination (referred to as vocational examination), drawn up and administered by the school (lõpueksam). Since 2016, all studies of special educational needs students end with the graduation examination, which can be replaced by the professional examination at the request of the learner.

Graduates receive a VET institution graduation certificate at the respective EQF level. A professional certificate (kutsetunnistus) can accompany the certificate or a statement is

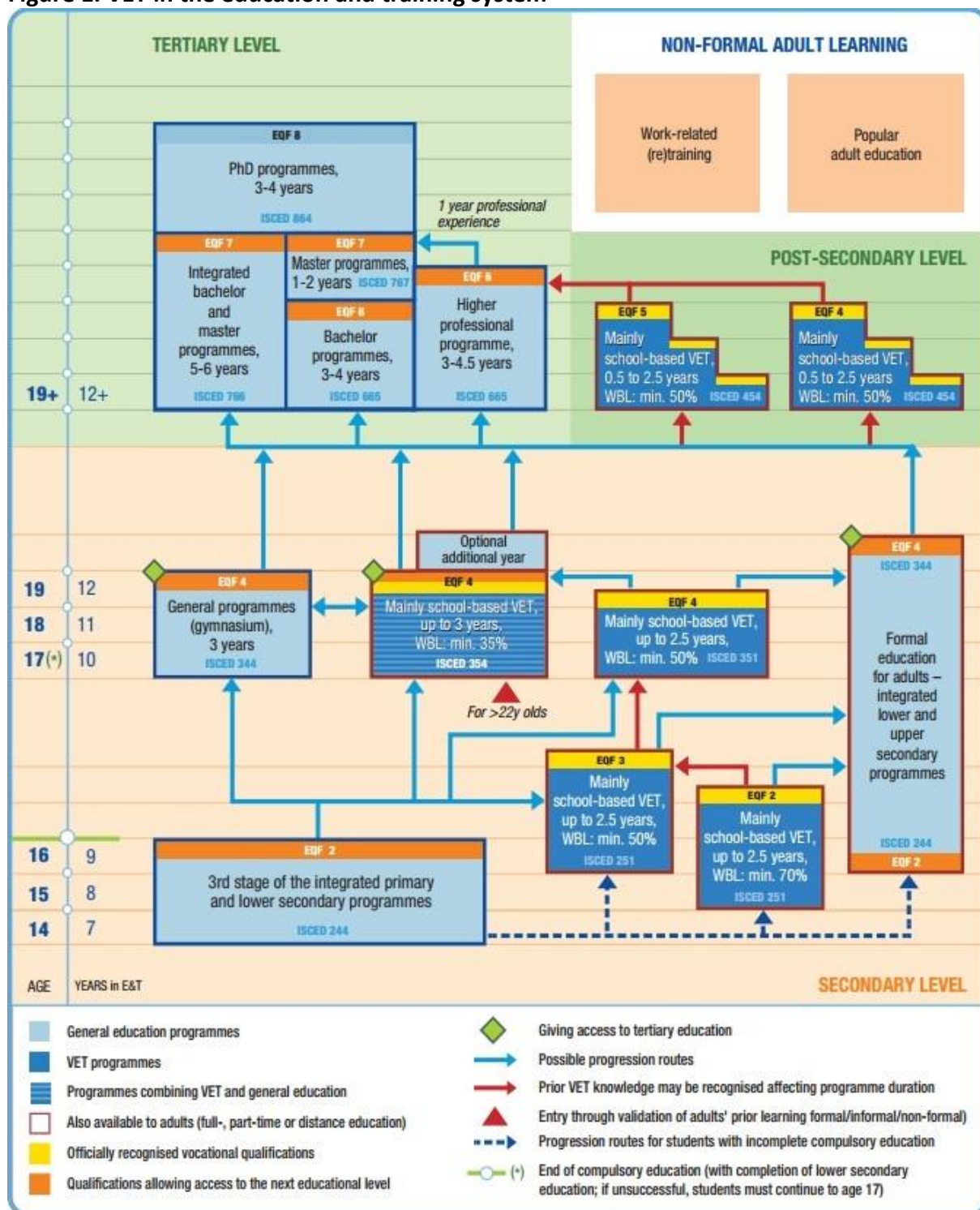
⁽³⁾ The term designates a form of study where learners are not 'stationed' at the VET institutions on a regular basis. Contact hours can be organised in evening/weekends classes or as cyclical training. E-learning options are also used.

recorded on the graduation certificate regarding obtaining the occupational qualification. A transcript proving programme completion is appended.

Estonian VET credit points (EKAP - Eesti kutsehariduse arvestuspunkt) were introduced by the recent VET institutions act (Riigikogu, 2013). EKAP is based on the principles of ECVET (European credit transfer system for vocational education and training) and indicates the estimated volume of student's work necessary to achieve the learning outcomes described in the curriculum or module. One credit point equals 26 hours of student work, a study year in VET is equivalent to 60 EKAP. All VET school curricula must be renewed by September 2017, after which date the schools can only accept students to new or renewed curricula. Programmes of the previous 'generation' will be closed by August 31st, 2018 and the remaining students must be transferred to new programmes.

1.3. VET in the Estonian education and training system

Figure 1. VET in the education and training system



NB: ISCED 2013-P.

Source: Cedefop and ReferNet.

1.4. VET programmes by EQF levels

A comprehensive table on VET programmes by EQF levels can be found in Appendix 3.

1.4.1. VET leading to EQF level 2 (ISCED 251)

In VET leading to EQF level 2 (teise taseme kutseõpe) the student acquires the knowledge, skills and attitudes of that level and the graduates can work in elementary occupations described in ISCO 08⁽⁴⁾. Only IVET curricula are used in VET leading to EQF level 2. Basic education is not required as a prerequisite to start studies. The volume of studies is 15-120 EKAP and the share of work-based learning (practical workshops at school and work practice at enterprises) is at least 70%. Curricula at this VET level are also suitable for students with special educational needs. Graduates can enter the labour market or continue their studies in general education schools to obtain lower secondary qualifications. There are special upper secondary schools for adults to make up for missing lower or upper-secondary qualifications.

1.4.2. VET leading to EQF level 3 (ISCED 251)

In VET leading to EQF level 3 (kolmanda taseme kutseõpe) the student acquires the knowledge, skills and attitudes of that level and graduates can work as 'plant and machine operators', 'craft and related trades workers', 'skilled agricultural, forestry and fishery workers' or 'service and sale workers', described in ISCO 08. Only IVET curricula are used at this level. Basic education is not required as a prerequisite to start the studies. The volume of studies is 15-120 EKAP and the share of work-based learning (practical workshops at school and work practice at enterprises) at least 50%. Graduates can enter the labour market. Those with basic education can continue their studies at upper-secondary level, either in general programmes or in VET. Those without basic education can attend upper secondary schools for adults to acquire the missing qualifications.

1.4.3. VET leading to EQF level 4 (ISCED 351, 354)

In VET leading to EQF level 4 (neljanda taseme kutseõpe) the student acquires the knowledge, skills and attitudes of that level. The graduates can work in more complex occupations of 'plant and machine operators', 'craft and related trades workers', 'skilled agricultural, forestry and fishery workers' or 'service and sale workers' (ISCO 08). Both IVET and CVET curricula are used at this level. Basic education is a prerequisite to start the studies. Those entering CVET programmes need to have at least an EQF level 4 qualification or competencies in addition to basic education. The volume of IVET studies is 15-150 EKAP (ISCED 351), and 180 EKAP for music and performing arts. The share of work-based learning (practical workshops at school and work practice at enterprises) is at least 50%. The volume of CVET is 15-60 EKAP.

IVET studies leading to EQF level 4 can also take place in the form of 'upper-secondary VET' (kutsekeskharidusõpe) (ISCED 354), i.e. VET combined with upper-secondary general education, which gives access to higher education programmes. Although the general entrance requirement for EQF 4 programmes is basic education, students over 22 years of age may enter without it if they have acquired the relevant competencies. The volume of studies is 180 EKAP and it includes key competence studies for at least 60 EKAP (1 year). The share of work-based learning (practical workshops at school and work practice at

⁴ ISCO- The international standard classification of occupations.

enterprises) is at least 35% from the whole programme, which amounts to 50% of VET subjects, which cover the remaining 2 years. To graduate, VET students in these programmes are not obliged to take the so called 'State examinations' ⁽⁵⁾, obligatory for upper-secondary general education graduates. One exception is the Estonian language exam, which is mandatory for students in VET programmes provided in a language other than Estonian, unless they pass the professional or vocational examination in Estonian. However, VET graduates may want to take the 'State examinations', since these can be required for entrance at higher education institutions. Graduates can take the State examinations the same year or following an additional one-year general education studies in subjects of their choice (more information in section 6 on the additional year). Graduates can enter the labour market or follow further pathways at EQF level 4 (CVET) or 5 (IVET and CVET) or, if higher education entrance requirements are fulfilled, in bachelor studies or in professional higher education.

1.4. 4. VET leading to EQF Level 5 (ISCED 454)

In VET leading to EQF level 5 the student acquires the knowledge, skills and attitudes at this level. These studies are also called 'specialised VET'. Both IVET and CVET curricula are used. IVET graduates can become 'technicians and associate professionals' or 'clerical support workers' (ISCO 08). CVET graduates can be expected to work in more complex occupations like 'plant and machine operators and assemblers', 'craft and related trades workers', 'skilled agricultural, forestry and fishery workers', 'service and sales workers' or 'clerical support workers' (ISCO 08). Completed upper-secondary education is a prerequisite for VET at this level. The volume of IVET studies is 120-150 EKAP and 60-150 EKAP for military and public defence curricula. To start CVET studies at EQF level 5, an additional prerequisite is having an IVET qualification at EQF level 4 or 5 or relevant competencies. The volume of CVET is 15-60 EKAP. The share of work-based learning (practical workshops at school and work practice at enterprises) is at least 50%. Graduates can enter the labour market or follow further pathways in CVET, in bachelor studies or in professional higher education.

1.5. Apprenticeship training

All VET programmes leading to EQF levels 2-5 with their corresponding duration can be offered as workplace-based training (apprenticeships). The share of training at the enterprise must be at least 2/3 of the programme. A regulation by the Ministry of Education and Research (Haridus- ja Teadusministeerium - HTM) concerning the procedure of workplace based training (apprenticeship training) was first adopted in 2007 (HTM, 2013g). Based on the school curriculum, the school designs an implementation plan for apprenticeship study and may also design an individualised curriculum for the apprentice. The programme is meant for people already working and in need of formal qualifications or learners who wish to work while acquiring a VET qualification.

General characteristics of apprenticeship programmes are:

- the school, the enterprise and the apprentice sign a tripartite study and work contract ('praktikaleping'), where the duties and responsibilities of each party are outlined along with the more specific arrangements for such workplace-based

⁵ General education graduation exams, administered nationally; referred to as 'matura examinations' in other national contexts.

study. An individualised curriculum specifying the learning outcomes is attached to the contract. An expert opinion on whether the workplace is suitable for meeting the learning objectives must also be attached to the contract;

- 1/3 of the curriculum is delivered at a VET institution with an emphasis on theoretical training, and 2/3 at an enterprise;
- apprentices receive a wage during the training at the enterprise and a study allowance during studies at school. Unless the apprentice already has a work contract, the wage is agreed upon in the tripartite contract and it cannot be lower than the minimum salary set by the Government. The minimum monthly gross salary in 2017 is 470€, the average monthly gross salary in 2016 was 1146€;
- the apprentice has two appointed supervisors, one at the school and the other at the workplace;
- studies are complete after passing a professional or vocational examination, which certifies that learning outcomes have been achieved.

An apprenticeship programme is usually funded through the State-commissioned study places scheme. The school covers the training at school, supervisors' training and salary for the school supervisor. Based on the agreement in the tripartite contract, the school can transfer up to 50% of the cost of the study place to the enterprise to cover the salary cost for workplace supervisors.

Since 2015 apprenticeship training has been supported from a national programme co-funded by European Social Fund (ESF). Additional places will be created (4666 by 2018, 8000 by the end of the ESF period), development activities will focus on training and cooperation between supervisors at schools and at enterprises, best practises will be shared and the best enterprises will be acknowledged. Resources will be created on how to implement workplace learning and pilots will be run. The number of learners in apprenticeships in VET has gradually started to increase and has reached ca 1 300 apprentices (from 25 VET schools); the growth compared to the previous year is 700 students. Altogether 334 employers participated in the scheme by the end of 2016 (thus, the benchmark for 2020 has been reached). By the end of 2016, 185 work practice (internship) supervisors and supervisors in apprenticeship training had received continuing professional development (CPD) training.

In 2016, an analysis on organisational models for apprenticeship in VET was published (Poulokainen et al 2016). The objective of this study was to analyse the state-of-play of the apprenticeship system in Estonia, determine the models of apprenticeship, conduct an analysis of the obstacles in providing apprenticeship and to come up with recommendations on how to expand the system. Estonia lacks a clear, uniform organisational model for apprenticeship. Cooperation between educational institutions and companies as well as the design and implementation of apprenticeship curricula have been multifaceted. The prevailing model is the school-based cooperation model, where the educational institution is the primary initiator of cooperation (coordinates the development of a curriculum and the admission process of apprentices). A company-based model is used less frequently. The

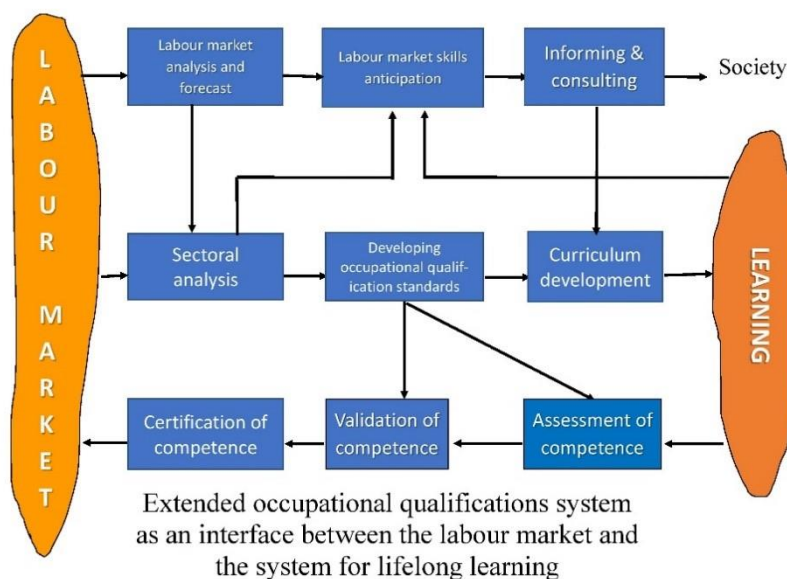
study points to the fact that both businesses and educational institutions are not well-informed about the opportunities of the apprenticeship scheme.

1.6. The occupational qualifications system

The occupational qualifications system in Estonia consists of: (a) a system of occupational qualification standards; (b) a system for awarding occupational qualifications; (c) an occupational qualifications' register.

Assessment of competencies through professional examinations is an important part of the occupational qualifications system, which in Estonia is an interface between the labour market and the life-long learning system (Figure 2). So far, it was only the employers who could administer the examinations. The 2013 VET law provides that VET schools can start administering the examinations. Still, the content of the assessment will be drawn up and students will be evaluated by the employers.

Figure 2. Conceptual scheme of the occupational qualifications system



1.6.1. Occupational standards

The occupational standard (OS) is the focal element of the occupational qualifications system, which describes occupational activities and provides competence requirements for occupational qualifications. Competence is an ability to perform a specific part of work or a task with the knowledge, skills and attitudes required.

Occupational standards are the basis for compiling VET national curricula and school curricula, curricula for higher education and other training programmes, and for assessment of individuals' competence, incl. self-assessment and awarding an occupational qualification. Occupational standards are available in the State register of occupational qualifications.

An occupational standard consists of three parts. Part A (description of the occupation) provides an overview of the nature of an occupation, major parts of work and tasks, necessary tools, work environment, incl. the specificities of work and describes the personal characteristics and skills enhancing occupational activities. This is a source of information for a person upon selection of an occupation. Part A also contains useful information for career advisers, labour market consultants, human resources managers and trainers.

The competence requirements presented in part B of the standard serve as a basis for the assessment of the applicant for the occupational qualification. These requirements are presented as descriptions of mandatory and optional competencies. Proceeding from the nature of the occupation, its specificity and traditions, attesting competencies related to a specialisation or optional competencies may be the prerequisite for being awarded the occupational qualification. Part C of the standard contains general information and references to annexes.

Occupational standards must meet the following conditions:

- be based on a job analysis;
- describe expected competencies as observable and assessable;
- define the method(s) for assessing persons' competence;
- define the Estonian Qualification Framework level of the respective occupational qualification.

Occupational standards are updated every four years on average, the methods for assessing competencies are improved, inter alia an option is provided for awarding initial occupational qualification upon the completion of a VET or higher education institution. All new occupational standards developed are competence (learning outcomes) based.

1.6.2. Occupational qualifications awarding process

The rules and procedures for the awarding of an occupational qualification describe general requirements for the awarding process and the procedure for the application and methods for assessing the applicants' competence.

In the process of awarding an occupational qualification the assessment committee, established by the occupational qualification committee, shall assess the compliance of the competence of the applicant with the requirements of the occupational qualification standards based on the criteria described in the rules and procedures for awarding the qualification or in the assessment standard.

The occupational competence of a person is assessed and recognised despite whether this has been obtained from formal, non-formal or informal learning. Recognition of prior learning provides the applicant with an opportunity to apply for the occupational qualification using application methods and evidence, making repeating assessment and validation of the competencies that have been assessed and validated earlier unnecessary.

1.6.3. Occupational qualifications registry

The register of occupational qualifications is a State database used to collect, preserve and systemise information on sector skills councils, occupations, occupational qualification standards, awarders of occupational qualifications and valid occupational qualification

certificates. The procedure for maintenance of the register is provided in the statutes of the register of occupational qualifications, which has been approved by a regulation of the Government of the Republic. The chief processor of the register of occupational qualifications is the Ministry of Education and Research.

Sector associations can have their own certification, distinct from professional examinations. Such information is available with the sector associations and is not gathered centrally.

2. Scope: institutions (at upper-secondary and post-secondary levels)

2.1 VET providers

VET providers can be owned by central or local government or be privately owned. All VET institutions have a similar management structure according to the VET institutions act (Riigikogu, 2013). The school network has been optimised. In 1990, there were over 90 VET schools. In 2016/17, the Ministry of Education and Research governs 26 VET institutions, 3 are run by the municipalities in Tallinn, Tartu and Väike-Maarja. Under the remit of other ministries, there are professional higher education institutions that also offer VET programmes. The Ministry of Defence (Kaitseministeerium) administers the Estonian National Defence College and the Ministry of the Interior (Siseministeerium) organises training for police, rescue and prison officials at the Estonian Academy of Security Sciences.

The first private VET institutions were founded in 1994. Their number grew rapidly, reaching 26 by 2002. Since then, many schools have closed due to the lack of (young) learners. At present, there are only four private institutions providing VET (EHIS ⁽⁶⁾, 01.03.2017). The students of private schools have accounted for 3% of the total number of VET students in recent years. The share of students in private schools whose studies are financed through State-commissioned study places is around 1.5%.

In addition, there are five professional higher education institutions (EHIS, 01.03.2017) that also provide VET programmes at upper-secondary (ISCED 3) and post-secondary (ISCED 4) levels along with higher education. Provisions for these programmes can be found in § 15¹ in the Institutions of professional higher education act (Riigikogu, 1998a).

As to general education schools, there are 149 integrated schools which function as a single unit with a basic school and an upper-secondary school, usually run by municipalities. There are 22 upper-secondary schools with no basic school, 14 of them have been created by the State in recent years (see section 10 for more information). Education is financed *per capita*, based on student numbers. Some key experts involved in drafting the report feel there is considerable competition for students between general schools and VET institutions as the above-mentioned 149 schools might not be interested in promoting VET to their students if they foresee a lack of learners in their own upper-secondary programmes.

⁽⁶⁾ Information system for education: database. See section 3 for further information.

2.2 Establishment of VET institutions

A State school shall be established by the Minister for education and research. A municipal school shall be established by the rural municipality or city council. After the establishment of school the holder of a school shall apply for the right to provide education from the Minister for education and research on the conditions and pursuant to the procedure provided for in the VET Institutions act (2013). If the school is established by the Minister for education and research, the Minister shall make the decision on granting the right to provide education simultaneously with the decision to establish the school.

A private school must apply for a training license for a curriculum group from the Ministry of Education and Research. The holder of a private school can be a limited company, whose stock capital must be at least 63900 Euros, a private limited company, whose holding must be at least 63900 Euros or a foundation or a non-profit organisation, whose equity must be at least 63900 Euros if they want to establish a VET school.

The right to provide education is the right granted to a school for a specified term to provide formal education in the relevant curriculum group ⁽⁷⁾ with a directive of the Minister for education and research. This right shall be granted upon the establishment of a new school or upon opening formal education in a new curriculum group at a school already holding the right to provide education. The minister for education and research shall decide the granting of this right based on documents submitted by the school and the results of external assessment by an expert committee, and additional evidence, if necessary. The right to provide education upon the establishment of a new school or opening study in a new curriculum group shall be granted for three years.

The application process, fees and the list of required documents for receiving the right to provide education upon the establishment of school (§9) or upon opening a new curriculum group (§10) are outlined in the VET institutions act (2013). The submitted documents subsequently undergo an evaluation by an expert committee that assesses whether the proposal is viable. The exact aspects are covered in the VET institutions act (§11). The minister shall decide whether to grant the right to provide education. In case the documents listed in §9-§10 are incomplete or the expert evaluation is negative, the right will not be granted. For information on extending the right to provide education, please refer to section 14 on quality.

2.3 VET school management

VET schools have a lot of autonomy. The State gives funding to a curriculum group, rather than a single programme (see subsection 4 for mix of provision). It is up to the school to decide which format they will offer, i.e. which programmes at which levels they will teach. VET schools can also perform economic activities to support the school, once they have been able to fulfil all the study places allocated through the State-commissioned study places scheme (see section 4 for details on the scheme).

⁽⁷⁾ A curriculum group is a classification category of curricula, used for organising vocational training, and which has been described in the Vocational education standard. A curriculum group corresponds to 'detailed field' in ISCED-2013 and comprises related curricula. See Appendix 1 for details.

Municipalities can additionally fund education offers that they consider important and that have not been covered by State funding. They can also participate in upgrading the equipment.

Every VET school is managed by the head of school, who is responsible within the limits of his or her competence for the general state, teaching and education, development activities and for legitimate and purposeful use of financial resources of the school. The complete list of responsibilities is in VET institutions act §15. The holder of the school (State, municipality or private) appoints the head of school, the vacancy is advertised publicly in case of the State or municipal school. See more in the section 'Governing and steering'.

The highest collegial decision-making body of the school is the council (nõukogu), the function of which is to organise the activities and plan the development of the school. The council includes the head of school and deputies, heads of structural units of the school and employees responsible for broad groups of studies; a representative of the student body and a trustee or representative of the employees. The responsibilities of the council are outlined in VET institutions act §17.

In addition, every school has an advisory body, which comprises stakeholders who connect the school and society. The body must have at least seven members and it is formed by the holder of the school for five years. The advisory body must have representatives from the following organisations (holder of school, local municipality, registered sectoral associations related to the fields taught in school, Estonian Unemployment Insurance fund) (HTM, 2013b). The function of this body is to advise the school and the head of school on planning the development and organisation of teaching and education and economic activities. The representative of the advisory body has the right to participate in the sessions of the council of the school. The advisory body makes proposals to the head of school and the council in issues related to the direction of development, activity, assets, budget, management and amendment of statutes of the school. Other responsibilities are brought out in VET institutions act §18.

3. Statistical overview

The Ministry of Education and Research collects education-related data through EHIS. This is a State register which is run by automated data processing and the data are stored digitally. The input is given by education institutions, including VET institutions. The ministry publishes a selection of education statistics on the web page Haridussilm (Education Eye).

3.1. Student numbers in different upper-secondary and post-secondary VET programmes

VET data are presented according to the old and new programme types ⁽⁸⁾, Statistics Estonia and Eurostat present VET statistics by formal education levels (Table 1).

⁸ See http://www.haridussilm.ee/?leht=kutse_1

Table 1. VET students in study years 2012/13-2016/17.

	2012/13	2013/14	2014/15	2015/16*	2016/17*
Lower secondary VET (VET without basic education requirement, EQF 2, EQF 3)	421	371	448	816	1 120
Upper-secondary VET (VET after lower secondary, 'upper-secondary VET', EQF 4 ('upper-secondary VET'), EQF 4 IVET, EQF 4 CVET)	15 118	14 250	14 541	16 360	17 982
Post-secondary non-tertiary VET (VET after upper-secondary, EQF 5 IVET, EQF 5 CVET)	10 633	11 078	10 248	7 731	5 969
Total	26172	25699	25237	24907	25071

Sources: Eurostat until 2014/15; EHS for 2015/16 and 2016/17.

The changes in programme classification (see subsection 1.2) have inevitably brought along challenges in data presentation, as except for the 'upper-secondary VET,' indicators for the other types of education are not directly comparable in the 5-year time series. Previously, VET programmes without basic education attracted learners with low qualification levels, but this is no longer the case. Now these learners are rather the adults interested in reskilling or upgrading their competencies, while they have at least previous medium-level qualifications. In addition, programmes at this level have become shorter and more flexible. This has also contributed to their popularity. Statistically, there has been a great increase in participation in these programmes, but this does not indicate that people with low qualification levels participate in training more. It is even more difficult to distinguish between VET after lower secondary education and post-secondary programmes, since very few learners in EQF 4 IVET programmes are only with basic education; most learners have higher qualifications. Since we do not regard EQF 4 as post-secondary, the number of post-secondary students is decreasing according to the data. To understand the time series better, we will present the threefold classification based on EQF levels. Due to the great changes in classification, only the 'upper-secondary VET' time series is comparable.

Table 2. VET students by types of VET programmes, 2012/3 – 2016/17 study years

Type of programme	2012/13	2013/14	2014/15	2015/16	2016/17
EQF 2 and EQF 3 (including 'VET without basic education requirement')	421	371	448	816	1 120
EQF 4 IVET ('upper-secondary VET')	14 152	13 245	12 420	11 700	11 308
EQF 4 and EQF 5 (including post-secondary VET)	11 599	12 083	12 369	12 391	12 643
Total	26 172	25 699	25 237	24 907	25 071

Source: EHS.

3.2. The share of students enrolled in upper-secondary and post-secondary VET programmes

One of the VET-related objectives in the Estonian Lifelong Learning Strategy (LLS) (HTM, Eesti Koostöökogu, 2013), adopted by the Government in 2014, is to increase the share of basic school graduates who would continue studies in VET. The goal for 2020 is 35%. Despite the efforts, the choices the youth are making following the basic school have not changed (Table 3). Career counselling is also a crucial factor in steering students' choices after the basic school. Thus, another objective of the LLS is that all basic school graduates have been given career counselling.

Table 3. Further education choices (full-time study) of basic school graduates, 2010-16

	2010	2011	2012	2013	2014	2015	2016
Continued in general education	71,5 %	70,0 %	69,1 %	70,2 %	69,5 %	70,5 %	71,1 %
Continued in VET	25,5 %	26,8 %	28,0 %	26,7 %	27,5 %	26,6 %	26,2 %
Did not continue studies the same year (in Estonia)	3,0%	3,2%	3,0%	3,1%	3,1%	2,9%	2,8%

Source: EHIS.

The distribution of basic school graduates between vocational and general secondary education has changed little in the past ten years. In the past seven years, 26-28% and 72-74% of basic school graduates chose vocational education and general upper-secondary education, respectively. Moreover, there are major gender and regional (including linguistic) differences in educational choices of basic school graduates: only 10% of girls who graduate in bigger cities, having studied in Estonian, choose VET, whereas in North-East Estonia, 60% of boys with Russian as the instruction language, opt for VET. Of the learners, who have not achieved B1 in Estonian by the end of basic school, two thirds have continued in VET the past six years. In addition, those who continue in VET or in general education, are clearly distinguishable by the grade point average on their graduation certificate. Very few graduates with higher grades go to VET.

The choices made by the upper-secondary graduates who finished in full-time programmes have been at the same level throughout the years (Table 4). After graduating from upper-secondary general schools, ca 10-13% continue in VET.

Table 4. Educational choices of graduates of upper-secondary general schools, 2010-16

	2010	2011	2012	2013	2014	2015	2016
Did not continue studies the same year (in Estonia)	28,4%	32,2%	33,6%	36,8%	34,6%	34,9%	38,0%
Continued in VET	10,0%	10,9%	11,2%	12,5%	13,0%	10,9%	10,4%
Continued in higher education	61,6%	56,9%	55,2%	50,6%	52,4%	54,2%	51,6%

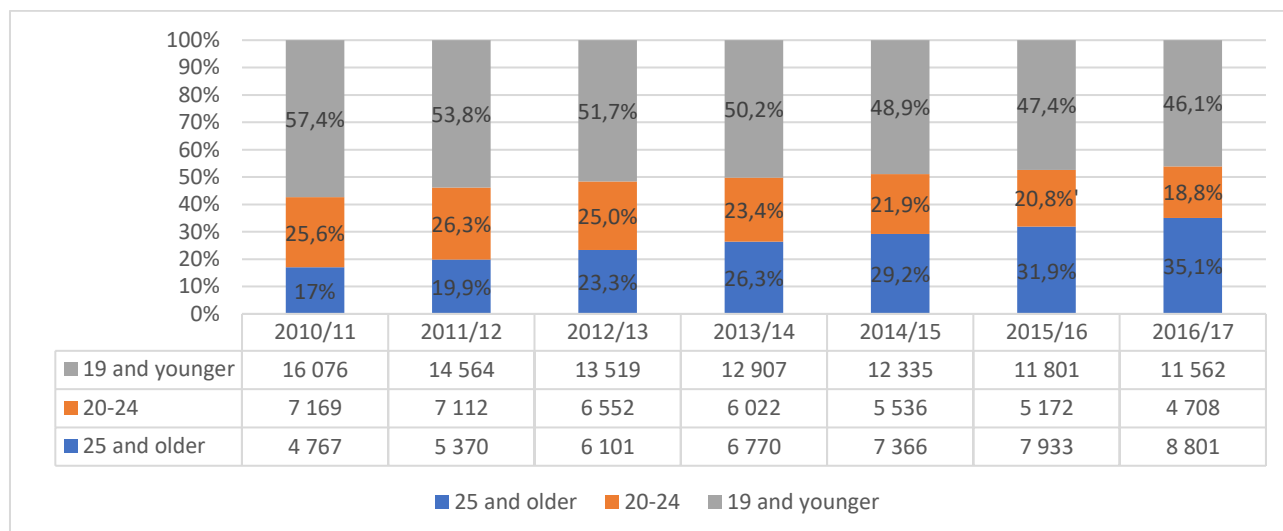
Source: EHIS.

3.3. The make-up of the student population

The number of VET students has been stable for the past three years (see Table 1). Despite a small increase in the overall student numbers, the number of students in 'upper-secondary VET' is still decreasing. At the same time, the number and share of 25 year olds and older learners has increased, amounting to 35% in the 2016/17 academic year (Figure 3). Changes in age distribution of students indicate that Estonian VET schools are increasingly catering to adults due to the aging of the society and new requirements of the changing labour market.

3.3.1. in terms of age

Figure 3. VET learners by age, 2010/11-2016/17 study years

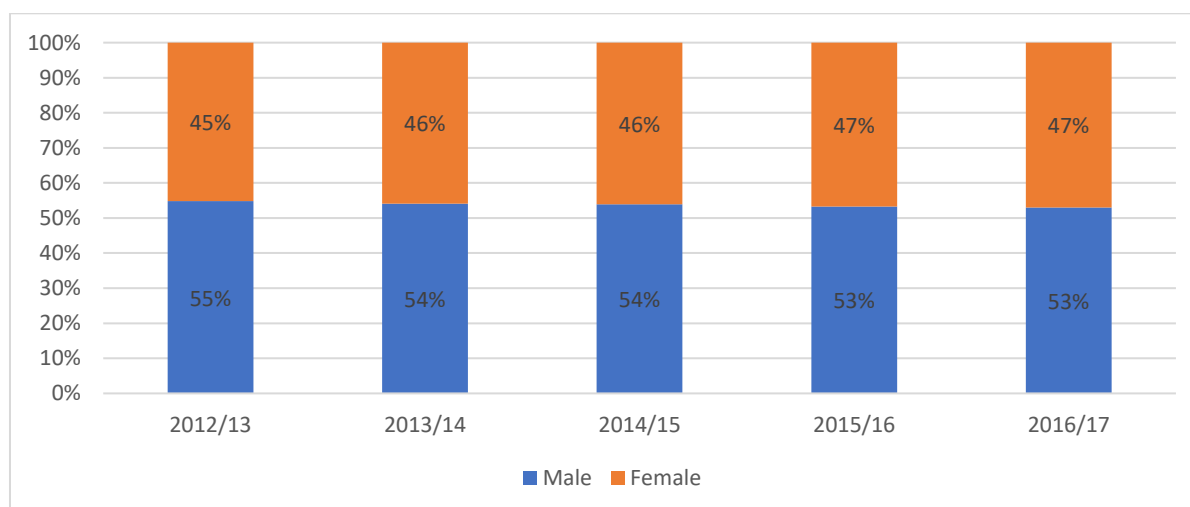


Source: EHIS.

3.3.2. in terms of gender

The make-up of student population by gender has traditionally shown slightly more male students than females. In 2016/17 study year, males account for 53% of all the students (Figure 4).

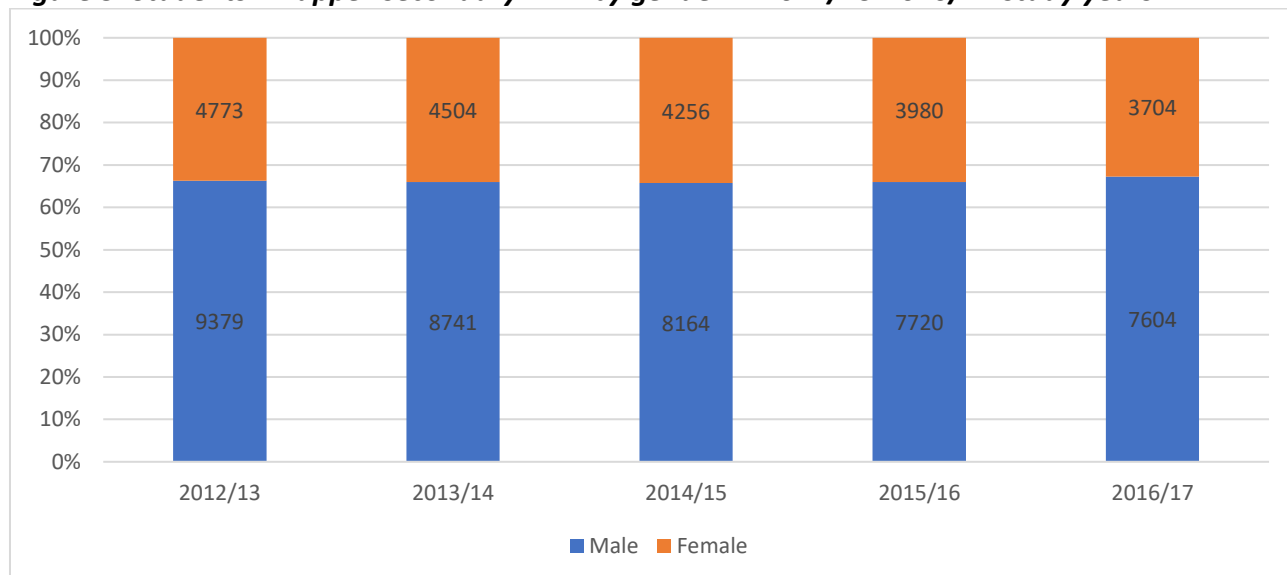
Figure 4. VET learners by gender, 2012/13-2016/17 study years



Source: EHIS.

Gender proportions differ significantly between different types of programmes and specialties. For example, in 'upper-secondary VET', the share of males has constantly been 2/3. (Figure 5). Learners in health care and welfare, on the other hand, are predominantly female.

Figure 5. Students in 'upper-secondary VET' by gender in 2012/13-2016/17 study years

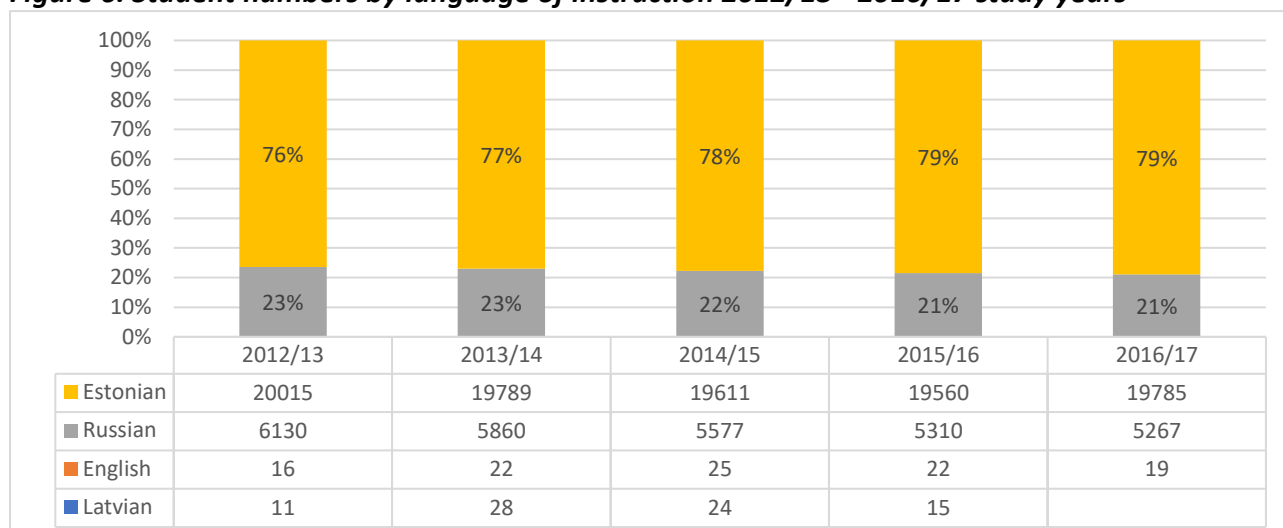


Source: EHIS.

3.3.3. in terms of language of instruction

In Estonian VET institutions, the language of instruction can be other than Estonian, the other major language being Russian (Figure 6). The share of students who study in Russian has been declining. By 2020, all 'upper secondary VET' programmes must be conducted in Estonian. Valgamaa VET centre started offering two International programmes in the fall of 2012 – a Latvian language group in woodworking (after the basic school) and an English language post-secondary study group in Logistics.

Figure 6. Student numbers by language of instruction 2012/13 - 2016/17 study years



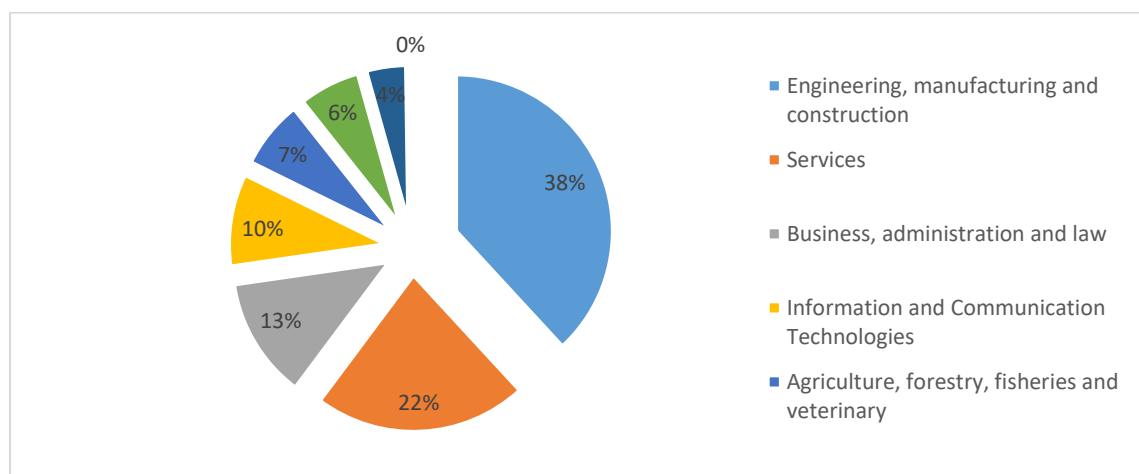
Source: EHIS.

3.3.4. in terms of study field

The basis for classifying VET study fields is the *International Standard Classification of Education Fields of Education and Training* (ISCED-F 2013).

Figure 7 presents VET students in 2016/17 study year by the broadest category – broad field of study. The field of study with the biggest number of students this year is, and has been earlier, engineering, manufacturing and construction. In 2016/17 study year, 9563 or 38% of all VET students study in this field. The number of students, however, has steadily decreased over the years – ca 11% compared to 2012/13 study year (Table 5).

Figure 7. VET students by fields of study in 2016/17 study year



Source: EHIS.

The second largest field is Services, but the number of students has also decreased significantly (-13%). The greatest increase has been in business, administration and law, where student numbers have increased by 20% in recent years. The increase is mainly because the professional higher education curricula in Tallinn School of Economics have been replaced by EQF level 5 VET curricula. Information and Communication Technologies have the highest numbers in recent years (2399); the field of agriculture, forestry, fisheries and veterinary has

been stable over the years. Due to new handicrafts and applied arts curricula, the field of arts and humanities has seen an increase. New curricula have also been opened in health and welfare.

Table 5. VET students by field of study and change in 2012/13 – 2016/17 study years

Study field	2012/13	2013/14	2014/15	2015/16	2016/17	Change in 5 years
Engineering, manufacturing and construction	10 775	10 325	10 124	9 687	9 563	-11%
Services	6 368	6 461	6 106	5 637	5 532	-13%
Business, administration and law	2 609	2 517	2 762	2 990	3 136	+20%
Information and Communication Technologies	2 339	2 297	2 173	2 347	2 399	+3%
Agriculture, forestry, fisheries and veterinary	1 731	1 818	1 784	1 817	1 767	+2%
Arts and humanities	1 373	1 442	1 533	1 589	1 585	+15%
Health and welfare	887	739	668	767	1 032	+16%
Natural sciences, mathematics and statistics	90	100	87	73	57	-37%
Total	26 172	25 699	25 237	24 907	25 071	-4%

Source: EHIS.

3.4. VET graduates

Although the number of VET graduates last year was the highest in recent years, the number of graduates from 'upper-secondary VET' has decreased by one third in 5-6 years (Table 6). The increase in the number of graduates comes from wider study opportunities on shorter curricula and the decrease in dropping out. Of the graduates of 'upper-secondary VET' ca 7-10% continue in higher education, most of them in professional higher education.

Table 6. VET graduates by levels of study 2010/11–2015/16 study years

Levels of study	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
EQF 2 and EQF 3 (including VET without basic education)	164	190	252	215	397	637
EQF 4 IVET ('upper-secondary VET')	3841	3564	2960	2698	2752	2501
EQF 4 and EQF 5 (including post-secondary VET)	4150	4381	4649	4725	4853	5115
Total	8155	8135	7861	7638	8002	8253

Source: EHIS.

3.5. Dropouts from VET

The share of dropouts is found by checking how many students who were enrolled on November 10th, have dropped out during the school year. In VET, a dropout is a person who had been attending classes for at least 31 days before dropping out. Dropouts do not include the ones who applied but never actually came to study or the ones that changed specialty in the same curriculum group (narrow field of study) in the same institution. Dropouts also do not include those who left and were readmitted within 31 days and continued studies in the same curriculum group.

The dropout rate has decreased lately. In 2015/16, of all VET students 19.2% dropped out (*Table 7*). Especially significant is the decrease in dropouts in 'upper-secondary VET', where in 2015/16 it was at all-time low. Dropping out has decreased in other VET curricula as well, but due to changes in classification, the statistics are not comparable.

Table 7. Dropout in VET in 2011/12–2015/16

Type of study	2011/12	2012/13	2013/14	2014/15	2015/16
EQF 2 and EQF 3 (including VET without basic education requirement)	39.3%	34.7%	38.3%	36.4%	24.9%
EQF 4 IVET ('upper-secondary VET')	17.7%	18.1%	19.4%	17.3%	16.1%
EQF 4 and EQF 5 (including post-secondary VET)	22.1%	22.2%	23.9%	22.7%	21.7%
Total	19.8%	20.2%	21.8%	20.3%	19.2%

Source: EHIS.

On the first year of VET studies, ca 25% of those who start, drop out. However, a big share of them start again. Dropping out from VET programmes has been a serious problem for a long time. The risk of dropping out is the greatest during the first year and decreases considerably with each consecutive year. Dropout indicators vary greatly between regions, schools and curriculum groups.

Dropout is also directly related to the student's grades at the basic school. Of all basic school graduates, 26-28% start vocational training. Of the basic school graduates with grade point average (GPA) up to 3.29, approximately 70% choose VET, while from those with GPA between 4.6 and 5.0, only about 2% opt for VET studies. The students with the lowest grades may not have developed study habits or may not have had positive learning experience at basic school. They do not often have the necessary learning skills or readiness to choose an occupation and continue studies. The lower the GPA, the greater the probability that 'upper-secondary VET' studies will be discontinued. Of students, whose GPA upon graduation from the basic school was lower than 3.29, 39.3% drop out already in the first year of 'upper-secondary VET' studies. Of the students, whose GPA was at least 4.3, only 9% drop out.

The reasons for dropping out of VET were researched in 2012 at the request of the education ministry. The main factors based on the interviews with VET dropouts, those at risk of dropping out and school representatives were as follows (Espenberg et al., 2012):

- personal reasons – inability to choose a profession and laziness coupled with absence of study habits;
- family reasons – most VET students are so young that they still belong to their parents' household and are dependent on them. Thus, problems at home (conflicts with parents, death of a family member) affect coping at school. On the other hand, VET students are at an age where they can become parents—this does not help concentrating on studies either;
- economic reasons – such reasons are twofold: lack of money or if working, lack of time to finish the studies;
- school-related reasons – interpersonal relationships play an important part at school, as they determine if the student is happy and wants to attend. Problematic relationships with teachers and/or fellow students may cause reluctance even while studying a specialty at a field that the person really likes;
- other reasons – peer pressure, inadequate computer and language skills, transportation problems, etc.

Based on a study in 2012, there are threefold costs connected with unsuccessful studies and inadequate education (Anspal et al., 2011):

- cost to the individual – loss of income due to low wages and lesser probability to find work, but also poorer health indicators;
- financial cost to the State – e.g. uncollected tax revenues and higher expenditure on social benefits;
- wider social cost – e.g. increased crime, lower participation in civil society.

4. Mix of provision

The funding to VET schools is allocated through the system of State-commissioned study places (riiklik koolitustellimus- RKT). The procedure is outlined in a regulation (HTM, 2013a). The objective of such a system is to ensure study places for the applicants from the State budget, considering labour market needs, strategic and sectoral development plans of the State, studies and forecasts, capacity of schools and preferences of potential students. One unit of RKT in IVET corresponds to 60 EKAP, which accounts for one year of studies. RKT is allocated to a curriculum group, it is up to the school to allocate it to different programmes and specialties within the curriculum group. One RKT can be split, for example, the school can offer 30 EKAP courses to 2 students in one year.

The decisions to fund the curriculum groups at schools are made by the RKT committee, which comprises representatives from departments of HTM – the Ministry of Education and

Research (VET, Analysis and Adult Education departments) and Innove ⁽⁹⁾. The same committee allocates money for both IVET and CVET provision.

RKT is planned for three years. Every year, decisions for the next three years are revisited and changes can be made. RKT can be increased or decreased for any school or curriculum group. These decisions are based on the skill needs in the sector, but also on the schools' ability to fulfil the allocated places. The fulfilment rate is calculated every month and the 9-month average is given as the final figure. If the fulfilment rate is over 90%, no changes are made. If the fulfilment rate falls below 90%, RKT for that curriculum group can be reduced or withdrawn. The school can apply to move RKT from one curriculum group to another, the committee will decide if it is allowed. Schools with full accreditation ⁽¹⁰⁾ (6 years) have precedence over the ones with partial accreditation (3 years). The committee also considers that VET provision be viable. For example, the allocation cannot cover less than one study group, otherwise the provision becomes uneconomical. At the same time, the 'wider view' is kept in mind. For example, closing a curriculum group in a small school might jeopardise the existence of the whole school. Regional needs are also kept in mind. For example, if the RKT places are not filled adequately, but there is a great regional need for these skills, the committee might decide to keep the funding.

The preliminary RKT allocation plan considers the medium-term skills forecast from the Ministry of Economics and Communications. The recent sectoral skills reports, released through OSKA ⁽¹¹⁾ programme have become increasingly more relevant in deciding VET provision. Also, the chairman of the RKT committee and the vice chairman liaise with the heads of 'sectoral associations' ⁽¹²⁾ throughout the year, having ad hoc meetings with them to discuss training needs in their sectors.

Once the preliminary plan is drawn up, it is sent for feedback to the Ministries of Social Affairs and Economics and Communications, Estonian Employers' Confederation, Estonian Trade Union Confederation and sectoral associations. Based on the feedback and in line with the allocation principles, changes are made to the plan before it is executed and the funding is released to the schools. All State-owned VET schools governed by the HTM (26 in number) and 3 municipal schools get their funding through this system. This school year only two private schools receive such funding in a small proportion. VET schools under the remit of the Defence Ministry and Ministry of Internal Affairs are funded by the respective ministries, using their own funding schemes.

The school has the right to decide the specific curriculum within the funded curriculum group, types of training and forms of study, as well as the number and time of admission of the new applicants. At the same time, the school must fill all the State-commissioned study places during the whole calendar year. If the school cannot admit enough students in some

⁽⁹⁾ Foundation Innove is an HTM's agency, which implements national education and language policy in the field of primary, lower and upper-secondary education as well as in vocational and adult education. For further information, see section 8.

⁽¹⁰⁾ For accreditation procedures, please refer to section 14 on quality.

⁽¹¹⁾ OSKA programme – a national programme co-funded from ESF, whose objective is to monitor and forecast labour market needs in certain sectors. See section 10 and Appendix 2 for more information.

⁽¹²⁾ Sectoral associations (erialaliidud) — umbrella organisations for entrepreneurs in a sector

curricula, it can use the funding for providing additional VET courses in the same curriculum group even in lower secondary or upper-secondary general school. VET schools can also use the resources of State-commissioned IVET study places to finance short term adult education courses.

The State-commissioned study places of work-related non-formal training courses are ordered once or twice a year by the Ministry of Education and Research and the development process can generally be divided into four stages:

- assessing the need for RKT for adults at the Ministry. The main objective here is to provide support for members of the RKT committee to make the right decisions and it mainly consists of two parts: survey of the needs of the labour market and analysis of previous State-commissioned study places;
- setting priorities in cooperation with partners outside the Ministry. In this cooperation, priority study programme groups or target groups of learners that receive priority funding are chosen for each year. Based on these priority areas, criteria for submitting applications and maximum budget limits are set for each school;
- educational institutions submit their applications to the education ministry twice a year;
- confirmation of State-commissioned study places. Schools' applications are evaluated by the RKT committee (see above). In making funding decisions, preference is given to courses that fall under the priorities. The objective is also to secure a balance in terms of counties as well as educational institutions.

In all stages of planning this approach tries to guarantee that the training courses offered to adults correspond to labour market and public needs, are based on national and regional needs, aim at raising competitiveness, acquiring key competencies in life-long learning and are available in all counties.

5. Workplace training

Work-based learning at the enterprises is called work practice ('praktika' in the local language). A regulation "Conditions and procedures for organising and administering work practice" was adopted in 2013 (HTM, 2013e).

As part of the national Labour Market and Education Cooperation Programme launched in 2015, co-funded by ESF, work practice will be developed further. The programme will raise awareness among the stakeholders; offer training for supervisors. Students doing their work practice outside of Tallinn or Tartu will be provided with transportation and accommodation support. Guidelines to implement work practice will be created and pilots will be run. Thus, work practice management in all VET institutions is expected to be harmonised, transparent and corresponding to the needs of the students and the labour market.

As mentioned in subsection 1.5 all VET programmes at all levels (EQF 2-5) can be offered as workplace-based training (apprenticeships), where at least 2/3 of the training must be offered at enterprises. In school-based programmes the ratio between theoretical studies and work-based learning is at least 50% (except for the upper-secondary VET programmes that give access to higher education, there the share is 35%).

As is the case with apprenticeships, a tripartite contract must be drawn up between the VET school, the student and the enterprise during work practice. Likewise, an expert opinion on whether the workplace is suitable for meeting the objectives must be attached to the contract. That can also be considered a measure to ensure quality. Likewise, there are objectives that come from the curriculum (programme) that specify what the student must accomplish during his/her time at the enterprise.

6. Access routes, second chance opportunities and equity

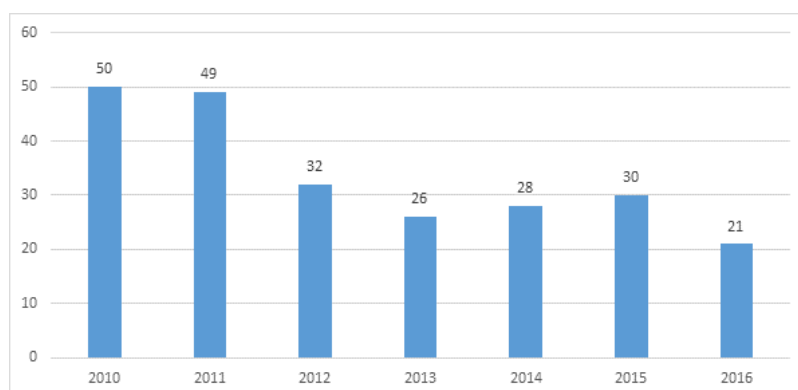
6.1 Access routes for all

The structure of the educational system allows everyone to proceed to the next education level (see Eurydice, 2006). VET often functions as a second chance opportunity. At programmes leading to EQF levels 2 and 3, there are no minimum admission requirements. Learners in these programmes can finish their lower secondary general studies at integrated lower- and upper-secondary schools for adults to make up for the missing qualifications and proceed to the next level.

As a rule, studies leading to EQF level 4 require completed basic education to enter, but there are exceptions. A student without a basic education diploma, who is at least 22 years old and can prove he/she has the relevant competencies, can be admitted to 'upper-secondary VET', which also gives access to higher education upon successful completion, so he/she can receive an upper-secondary diploma, without having to go back to lower secondary.

There are no legal barriers that would prevent students from moving between levels of education. Students who successfully graduate from the EQF 4 programme including at least 60 EKAP of general subjects ('upper-secondary VET'), can go on to higher education. Such VET graduates can spend an additional year taking general education subjects of their choice at a general upper-secondary school for adults (HTM, 2014b) to prepare better for the higher education studies ahead or for the State examinations, which might be needed for entrance at some higher education institutions. This opportunity has been there since 2006, but not many graduates have used it. For the numbers in 2010-2016, please see Figure 8.

Figure 8. The number of 'Upper-secondary VET' graduates that have used the additional year, 2010-16.



To enrol in post-secondary VET, learners need to have at least a vocational qualification or validated competencies and an educational qualification at EQF level 4.

VET has a very important role to play in ensuring the coherence of the society. Learning opportunities are open for essentially all people regardless of their previous level of education, age or disability. VET is also carried out in all three prisons in Estonia. The training is provided in 8 curriculum groups – Horticulture (24 study places); Building and civil engineering (24); Domestic services (31); Textiles (clothes, footwear and leather) (10); Materials (wood) (51); Mechanics and metal trades (46); Hotel, restaurants and catering (16); Transportation services (6).

A survey, commissioned by the education ministry, "Organising inclusive education for pupils with special educational needs (SEN) and the effectiveness of related measures" (Räis et al., 2016) concluded that the educational choice for SEN learners after basic school is predominantly vocational training. Of the students who entered into general upper-secondary school, only 1.4% had been recorded as having at least one of the SEN markers during the nine years of studies at the basic school, whereas the same figure was 38.6% for entrants into VET.

The share of SEN learners has remained between 3 – 4% of all VET students throughout the last decade. SEN learners can apply to all VET programmes on a regular basis. However, it is the responsibility of the VET institution to assess the suitability of the curriculum for each individual applicant and to advise the students accordingly during the admission process. Most SEN students in VET study at upper-secondary level, either in 'upper secondary VET' or in other IVET programmes leading to EQF level 4 qualification. Generally, SEN learners are integrated in regular study groups. Graduation requirements of VET studies have been set by the vocational education standard and cannot therefore be lowered. However, the school can tailor a more individualised learning pathway for such learners by applying different study methods or lengthening the study period. A wide range of adjustments which should be available at VET schools, are set in a regulation (HTM, 2014a).

VET for people with medium and severe disabilities can be arranged differently, for example, in collaboration with welfare agencies (Haapsalu VET institution collaborates with Astangu Rehabilitation centre and Räpina school of horticulture with the foundation Mary's Village). Most students who are considered SEN learners in VET have studied according to a

simplified or individualised lower secondary programme as the regular curriculum proved too challenging for them. Schools can provide additional general education studies for students who have graduated under the simplified curriculum (Riigikogu, 2010a). VET option for such learners has been there since 1998.

VET offers study opportunities also for people with different cultural backgrounds and mother tongues. According to EHS (01.03.17), 16 schools offer curricula in Russian, two in English, one in Latvian. Valga VET institution has cooperated for many years with their sister town in Latvia to provide VET for Latvians.

VET for adult learners (employed and unemployed) takes place in VET institutions, mostly in the form of non-formal courses and often in non-stationary form (see subsection 1.2). There are no age limits for any formal VET programmes either and the share of learners over 25 years of age has been increasing steadily in recent years. Adults receive the same diplomas/certificates as other VET graduates. For provision of such courses, please refer to section 4.

6.2 Career and labour market services for the unemployed and those at risk

Career and labour market services for unemployed and those at risk are financed by the Unemployment Insurance Fund (Töötukassa) and co-financed through various ESF programmes. Legal provisions are outlined in the Labour market services and benefits act (Riigikogu, 2005) and related acts. Several services of the fund are aimed at facilitating persons' employment by teaching and developing job-related knowledge and skills, providing the necessary work experience or motivating employers to hire risk groups.

Labour market training is arranged through public procurement and training voucher system. Training vouchers were introduced in 2009 as a measure to reduce drop-out rates, since the personal responsibility was expected to be higher with this measure, compared to other measures by the unemployment fund. Voucher-based training offers a quick and flexible way for the unemployed to use the resources for further training or retraining to find a new job. The cost of the voucher-based training is compensated in a total amount of 2,500 euros within a two-year period.

The unemployment fund provides *career counselling* for registered unemployed clients, clients with a notice of redundancy and since 2015 also for employed people and people who are inactive on the labour market, but are not registered as unemployed. Career counselling is provided both individually and in groups. Employed people and people who are not registered as unemployed can also use e-counselling service by writing to a counsellor or attending a session via Skype.

The unemployment fund provides *labour market training* for the registered unemployed, job seekers with the notice of dismissal and to retirement age job seekers (who are not employed). Such training can last for a maximum of one year. Training needs are assessed and substantiated in the process of work-focussed and/or career counselling with the clients and according to their needs either a suitable training is ordered or the client can choose a training with a voucher from a list of qualified training partners. VET schools are also training partners if they win the tender. For more information, see:

<https://www.tootukassa.ee/eng/content/services/training>

Work placement is provided by the fund in co-operation with an employer when a person lacks the required practical work experience or improvement is needed in professional knowledge and skills. The idea with work placement is that a person can acquire the necessary knowledge, skills or experience by completing short-term practical training (for up to four months). For more information, see:

<https://www.tootukassa.ee/eng/content/services/work-placement>

The registered unemployed who raise a child less than 7 years old or care for an elderly or disabled relative and cannot participate in training (or other services) or go to work for these reasons, can apply for reimbursement for care giving expenses they have accumulated. Care giving costs are compensated for every day of participation in a labour market service or for the first three months in case of starting work. For more information, see:

<https://www.tootukassa.ee/eng/content/services/assistance-family-caregiversparents>

If an employer hires people belonging to risk groups he/she can apply for a *wage subsidy*. Wage subsidies are calculated as 50% of the wage or salary of the new employee, but the amount of the subsidy cannot exceed the official minimum monthly wage. Wage subsidies can be granted to employers who hire:

- a long-term unemployed person;
- a person who has been released from prison;
- a young person (16-24) who has been registered as unemployed for more than 6 months;
- a young person (17-29) who has been registered as unemployed for more than 4 months, have little or no work experience and no specialised training;
- a person with partial working ability who has been registered as unemployed for more than 6 months.

The goal of the subsidy is to help such persons find stable employment, by financially supporting employers to engage them. For more information, see:

<https://www.tootukassa.ee/eng/content/financial-benefits/wage-subsidy>

Since July 2016, the unemployment fund provides *study allowance* related to the participation in formal studies financed by European Globalisation Adjustment Fund (EGF). The measure is targeted to registered unemployed who have been made redundant from three different companies in the North-Eastern region of Estonia (Eesti Energia AS, Nitrofert AS and Viru Keemia Grupp AS and their sub-companies). The measure aims to motivate the unemployed to start/continue their formal studies entering VET or higher education.

In May 2017, the unemployment fund will start providing services aimed at prevention of unemployment. These services are targeted to employees who need support in changing jobs or remaining employed due to a lack of skills or skills obsolescence, as well as to employers to support them in finding and training suitably skilled workforce and restructuring their companies. The new services focus mainly on preparing workers for professions that according to OSKA research surveys will be of growing importance in the coming years and already lack skilled workers. The new preventive services are as follows:

- ‘*degree study allowance*’ for employed and unemployed persons who have trouble finding work or who are at risk of losing their job due to insufficient education or

obsolescent skills. The allowance is paid upon commencing vocational, professional higher education or bachelor studies at a State-commissioned study place;

- *'labour market training with a training voucher for employed persons* at risk of unemployment (i.e. persons over 50 years of age, persons who lack professional or vocational education, persons whose Estonian language skills are insufficient for occupational development, persons who cannot continue in current position due to their health issues);
- *'support for obtaining a qualification'* – a service that enables an employed person to have costs related to obtaining a formal qualification compensated;
- *'training grant for employers'* to support training the staff to develop their knowledge and skills on entering the job or adapting to changes in the economic activity of the employer.

More information on these new services can be found at:

<https://www.tootukassa.ee/eng/content/prevention-unemployment>

7. Transition to the labour market

Key conclusions of the 2016 survey that analysed transition to the labour market (Jaggo et al., 2016) indicate that:

- educational attainment is valuable as each subsequent level contributes to an increase in income;
- work experience provides additional income on the Estonian labour market. The analysis demonstrates a significant difference in the income of school-leavers now and nine years ago;
- while immediately after finishing school, education with a narrow focus (upper-secondary VET and professional higher education) proves to be more profitable than that with a general focus (general upper-secondary education and academic BA studies), the differences recede or even reverse over time;
- the data confirm the rapid increase of income in the past few years, particularly among recent school-leavers. The income of those who graduated in 2010 increased by 30% on average in the 2011-2014 period, while the same figure for 2005 graduates was slightly less than 20%;
- engineering and computer sciences provide higher income at all education levels, suggesting that the current educational policy aiming to raise the number of STEM (Science, Technology, Engineering and Mathematics) graduates and encourage young people to enter these fields of study has been appropriate. It is important to continue to prioritise growth areas and fields of study as well as to promote STEM fields;
- over 10% of VET or higher education graduates are inactive on the Estonian labour market, do not work, are not unemployed and are not in military service or raising young children, with 1/3 of them being abroad according to data from the Population Register. Most of these are VET graduates;

- young people who have not reached at least upper-secondary education prior to entering the labour market are primarily at risk;
- gender gaps in education and income are of particular concern. The latter is especially obvious among VET graduates.

Employers are increasingly complaining that the main hindrance to the economic development is the lack of qualified work force. The analysis by Jaggo et al. in 2016 shows that despite shortages, there are thousands of skilled people who have left the labour market (Table 8). We know that some of them are abroad, but it is more difficult with people we do not have data for.

Under the circumstances of free movement of labour, Estonian labour market is greatly influenced by the Nordic countries' structural skills shortages, higher income level and better working conditions. For example, of the 7500 graduates from architecture and construction in 2005-2013 ca 1100 or 15% were abroad in 2014. There are many such graduates who are away from the Estonian labour market also from health care (both in VET and higher education) and from manufacturing and processing and personal services in VET (Jaggo et al., 2016).

Table 8. The situation in 2014 with 2005-13 graduates from VET and higher education

	Total	VET	Higher education
Those who graduated in 2005-2013 from VET or higher education, at the end of 2013, by the highest level achieved	147 266	58 315	88 951
Abroad or situation unknown	17 941	8 368	9 573
%	12.2%	14.3%	10.8%
incl. Those abroad	5 399	2 244	3 155
%	3.7%	3.8%	3.5%
Incl. According to population register reside in Estonia, but the situation in the given survey unknown	11 486	5 751	5 735
%	7.8%	9.9%	6.4%
Incl. Those with no data in the population register	1 056	373	683
%	0.7%	0.6%	0.8%

Source: HTM.

Another concern is the gender gap in education and income (Table 9). The gender gap is the most noticeable among VET graduates – income from salary for women is 30% lower than for men, amounting to 456-660 euros a month in 2014, which can partly explain why female participation in VET is low (Jaggo et al., 2016).

Table 9. VET and higher education 2005-13 graduates by the highest education level, their average income by gender in 2014

Study level	Total	Male	Female	Difference in income
Doctoral studies	1 623 €	1 770 €	1 507 €	15%
Integrated bachelor and master studies	1 437 €	1 580 €	1 368 €	13%
Master studies	1 350 €	1 610 €	1 236 €	23%
Bachelor studies (4+2)	1 318 €	1 576 €	1 161 €	26%
Professional higher education studies	1 094 €	1 379 €	977 €	29%
Bachelor studies (3+2)	1 061 €	1 269 €	955 €	25%
VET studies after upper-secondary	798 €	998 €	660 €	34%
'Upper-secondary VET'	757 €	845 €	558 €	34%
VET studies after lower secondary	734 €	798 €	607 €	24%
VET with undefined educational level	583 €	605 €	456 €	25%
Total	1 023 €	1 144 €	938 €	18%

Source: HTM.

As mentioned above, income from earnings is low for VET graduates. 'Upper-secondary VET' graduates earned 642 euros one year after graduation; those who had graduated nine years before, earned 827 euros. Right after graduation there is a difference between 'upper-secondary VET' graduates (642 euros) and post-secondary VET graduates (741 euros), yet there is no such difference among the former graduates — post-secondary VET graduates from 2005 earned 851 euros in 2014. Thus, there is not much difference when to study VET, together with upper-secondary general studies or thereafter. At the same time, the graduates of professional higher education programmes earn 300 euros more, right after graduation compared to post-secondary VET graduates (Jaggo et al 2016).

Prospects of finding work for those with completed upper-secondary education are higher than for those with only basic education according to a previously conducted study (Anspal et al., 2011). A similar trend emerges from a thematic report of the PIAAC survey (Anspal et al., 2014), which showed the difference in unemployment between general education graduates and post-secondary VET graduates (8-11% and 4% respectively).

Average income varied across the fields of study from 620 euros to 1130 euros, i.e. graduates from personal services earned about 45% less than graduates from the security services (Jaggo et al., 2016).

Table 10. Graduates from higher education and VET in 2005-13, their average income (€) in 2014 by VET fields of study and gender

Field of study	Higher education			VET		
	Total	Male	Female	Total	Male	Female
Information and Communication Technologies	1 713 €	1 777 €	1 500 €	881 €	982 €	653 €
Security services	1 530 €	1 600 €	1 268 €	1 130 €	1 174 €	989 €
Transportation services	1 480 €	1 618 €	1 274 €	767 €	929 €	590 €
Engineering specialties	1 451 €	1 495 €	1 205 €	897 €	913 €	616 €
Architecture and construction	1 307 €	1 442 €	1 055 €	773 €	792 €	543 €
Health	1 236 €	1 641 €	1 201 €	653 €	972 €	624 €
Business and management	1 204 €	1 405 €	1 133 €	702 €	885 €	676 €
Veterinary	1 198 €	1 428 €	1 154 €	740 €		740 €
Average	1 176 €	1 425 €	1 060 €	772 €	887 €	622 €
Agriculture, forestry and fishery	1 064 €	1 201 €	896 €	829 €	853 €	695 €
Manufacturing and processing	1 060 €	1 296 €	951 €	656 €	778 €	565 €
Personal services	974 €	1 073 €	937 €	620 €	761 €	574 €
Environmental protection	974 €	1 135 €	906 €	707 €	863 €	647 €
Social sciences	901 €	1 153 €	886 €	638 €	1 040 €	612 €
Arts	807 €	922 €	767 €	677 €	811 €	598 €

Source: HTM.

8. Steering and governance

At the level of legislative and administrative power, the Parliament (Riigikogu), the Government of the Republic of Estonia (Eesti Vabariigi Valitsus) and the Ministry of Education and Research (HTM - Haridus- ja Teadusministeerium) administer vocational education and training system.

The legislative framework for the education and training system originates from Parliament. The Parliament has exclusive authority to determine the principles of the formation, functioning and development of the education system. The Government of the Republic of Estonia approves national strategies and other legislative standards.

The Ministry of Education and Research is responsible for the planning of national policies related to education, research, youth and language and, therein, managing the fields of pre-primary, basic, general upper secondary, vocational, higher, hobby and adult education, organising research and development activities, youth work and special youth work, and compiling drafts of corresponding legal acts. The mission of the Ministry of Education and Research is to be a leader in sustainable education policy and to create conditions that ensure lifelong learning possibilities for all in an innovative and development-oriented society.

The legal basis for VET was created in the 1990s after the country regained independence (see Reference section for VET related legal acts). Since 2014 there are no separate development plans and strategies for separate education levels. These have been replaced by the Estonian Lifelong Learning Strategy 2020. The five main objectives in this strategy are:

1. A change in the approach to learning.

The objective is to implement an approach towards learning that supports each learner's individual and social development, learning skills, creativity and entrepreneurship in the work of all levels and types of education.

2. Competent and motivated teachers and school leadership

The objective is to make the evaluation and compensation of teachers and school leaders proportional to their professional qualifications and their effectiveness in the performance of their work.

3. The concordance of lifelong learning opportunities with the needs of the labour market.

The objective is to create study opportunities and career services that are of a good quality, flexible and diverse in their selection, and that also take the needs of the labour market into account, to increase the number of people with professional education for different age groups and regions.

4. A digital focus in lifelong learning.

The objective is to apply modern digital technology in learning and teaching in a more efficient way and with better results, to improve the digital skills of the general population and to guarantee access to the new generation of digital infrastructure.

5. Equal opportunities and increased participation in lifelong learning.

The objective is to create equal opportunities for lifelong learning for everyone.

To implement the Lifelong Learning Strategy 2020, the Ministry of Education and Research has drafted an implementation plan and nine comprehensive programmes, co-financed from ESF to tackle the challenges. The following programmes are related to VET, skills and the labour market:

- Vocational Education Programme;
- Labour Market and Education Cooperation Programme;
- Study and Career Counselling Programme;
- Adult Education Programme;
- Digital Focus Programme;
- Teacher and School Leadership Education Programme;
- School Network Programme.

While developing and implementing VET-related policies, the Ministry of Education and Research collaborates with other ministries and public law entities, including the Ministry of Social Affairs, the Ministry of Economic Affairs and Communications, the Ministry of the Interior, the Ministry of Culture, the Ministry of Finance, Statistics Estonia and the Estonian Unemployment Insurance Fund.

- The Ministry of Social Affairs develops and implements working life and labour market policy to ensure the people retain long-term working capacity and employment. It also provides information on the training and retraining of the unemployed and labour market services.
- The Ministry of Economic Affairs and Communications creates overall conditions for the growth of the competitiveness of the Estonian economy and its balanced and vital development through the drafting and implementing of Estonian economic policy and the evaluation of its outcomes. It compiles medium term forecasts of economic development and labour market needs.
- Statistics Estonia administers the national statistical database, including data on education, labour market and lifelong learning.
- The Estonian Unemployment Insurance Fund (Eesti Töötukassa) administers social insurance provisions related to unemployment and organises labour market services that help the unemployed find employment.

The Ministry of Education and Research has several agencies that help with implementing VET policy. Foundation Innove has been authorised to implement national education and language policy in the field of primary, lower and upper-secondary education as well as in vocational and adult education. The foundation:

- organises compiling and developing of national VET curricula and advises on developing school curricula;
- organises compilation of methodological and other resource materials supporting the implementation of the national curricula;
- promotes new innovative ideas and methods in vocational education and training;
- organises continuous training for VET teachers and trainers;
- implements an ESF programme „Developing work practice system in VET and higher education, including internship in teacher training,“ „Raising the image of VET and extending workplace-based training,“ „Language learning activities to support a more successful integration in the labour market“;
- coordinates national skills competitions in Estonia;
- coordinates and prepares Estonian teams for WorldSkills and EuroSkills;
- participates in transnational networks for training and consultation services;
- provides guidance and career counselling for youth under 26 in 16 ‘Rajaleidja’ (Pathfinder) centres across Estonia;

Foundation Archimedes’ unit Estonian Quality Agency for Higher and Vocational Education (EKKA) carries out quality assessment for VET and higher education curriculum groups and institutional accreditation for higher education institutions. The foundation is also the implementing body of Erasmus+ and administers several national and international scholarship schemes for improving mobility, including for VET students.

Estonian Qualifications Authority deals with the occupational qualifications system and all the related activities. Since 2015, the Qualifications Authority has been implementing the OSKA programme. See subsection 1.6, section 10 and Appendix 2 for more information on their activities.

9. Funding and incentives

9.1. Funding

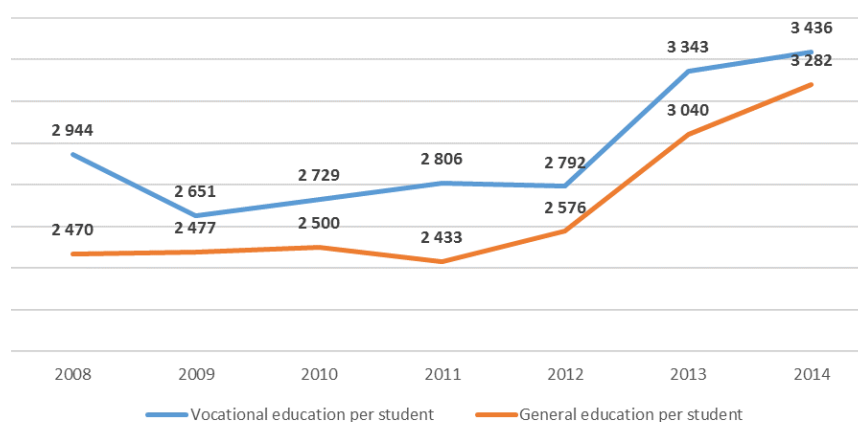
Study costs of State VET schools are covered within the framework of the state-commissioned education (for RKT, see section 4) and by the number of study places (per-capita financing). The cost of one study place is calculated from the unified basic cost of the study place and a curriculum group specific factor (coefficient). Extra factors apply for studies for persons with special educational needs and for VET studies in prisons. This funding scheme covers VET institutions' costs for salaries (teachers, managers and other staff), training materials and overhead costs of all premises (heating, electricity, etc.). The unified basic cost of a study place for each budgetary year is established by the Government. Investments into equipment, premises etc. have been financed separately (mostly co-financed from EU structural funds) during the past decade. For different VET study levels and types, the same funding scheme is applied. Ca 97% of study places are covered from the public funding. Total expenditure (public and private institutions) on vocational education has decreased from EUR 129 million in 2010 to EUR 108.7 million in 2014 due to decreasing investments in modernising the premises and equipment of VET schools.

Table 11. Expenditure on VET, 2008-14.

	2008	2009	2010	2011	2012	2013	2014
Total vocational education expenditure (million EUR), incl. Investments	85.0	98.0	129.0	118.0	108.0	105.2	108.7
- investments (million EUR)	4.4	25.8	51.6	39.4	32.5	17.7	20.4
Total vocational education expenditure of GDP	0.51%	0.69%	0.88%	0.71%	0.60%	0.56%	0.55%

Total expenditure (public and private institution) in VET per student without investments was higher than in general education and has increased in 2009-14.

Figure 9. Expenditure per student in VET and general education, 2008-14

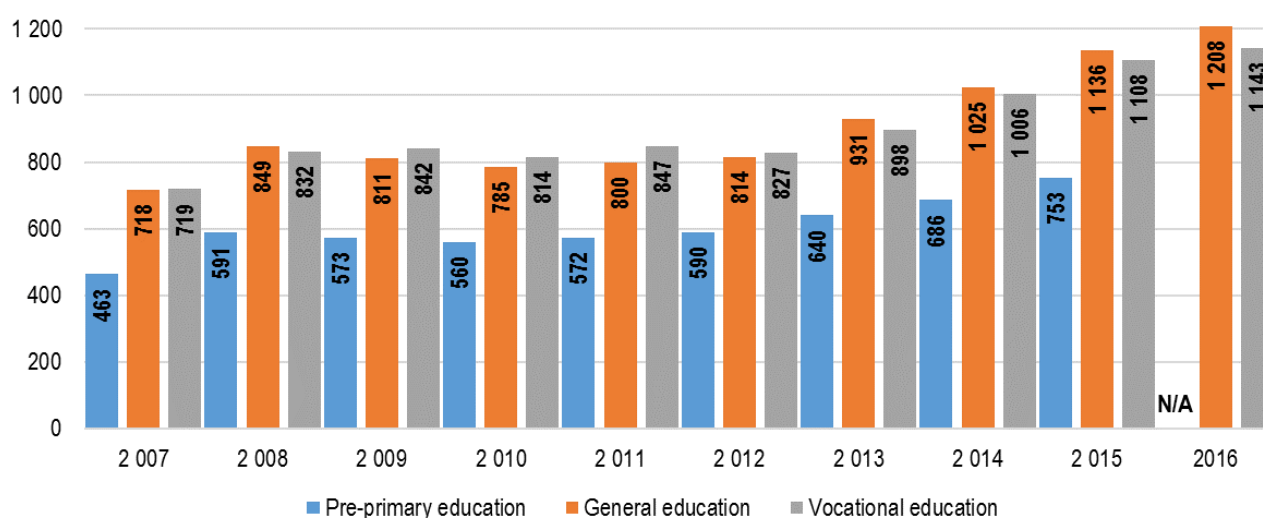


Source: UOE methodology; public and private expenditure (note: 2014 data are not validated by Eurostat and OECD).

Public expenditure on vocational education as a percentage of total government expenditure in 2012 was 1.6%, in 2013 – 1.5% and in 2014 – 1.4%. The ratio decreased because government expenditure increased nominally more than expenditure on vocational education.

Approximately 66% of total expenditure is compensation to staff incl. teachers. Thus, 34% is expenditure on current expenses. The average salary for teachers is a bit lower in VET than in general education.

Figure 10. Average salaries for teachers in pre-primary, general and vocational education, 2007-16



9.2. Incentives

The study allowances and study loans act (Riigikogu, 2003a) provides the basis, conditions and procedure for the grant of study allowances and study loans to ensure access to vocational education and motivate pupils to complete vocational training, to acquire a vocational upper-secondary education, to study full time and successfully complete the study programme within the nominal period. Students whose study programme lasts six months or more, have the right to obtain a study loan if they are enrolled in full-time post-secondary education at a State, municipal or private vocational educational institution. Students also have the right to obtain the study loan if studying abroad at a vocational education institution in a similar form of study. In 2016/17, the maximum amount of study loan was 1 920EUR per study year.

VET students can also apply for study allowances. Students studying in upper-secondary and post-secondary VET can apply for basic allowance if they follow a full-time curriculum for which the State has commissioned study places. Basic allowance is paid based on student achievement and it is a fixed amount paid monthly (60EUR since 2015). In recent years, about 50% of all VET students received basic allowance. VET institutions can use up to 50% of the basic allowance fund resources to establish a special allowance fund. From this fund, allowances can be granted disregarding the requirements specified for basic allowances and considering other circumstances which might hinder the learner from continuing his or her

studies. The procedure for the use of the special allowance fund shall be approved by the VET school council. In addition, the Government supports school lunches for learners under 20 who study on IVET curricula. The student must receive at least one warm meal a day from this allowance. During work practice at the enterprises, this allowance can be transferred to the student's bank account.

Transportation costs are also reimbursed for students in VET institutions. For students who live in dormitories, a return ticket is reimbursed once a week if they study in 'upper-secondary VET' programmes, and up to twice a month if they study in EQF4 or EQF5 level programmes. Likewise, transportation on vacations and public holidays is reimbursed. Students who commute daily, get one return ticket reimbursed per day. Dormitories at many VET schools provide affordable housing. Some employers pay stipends to students or even salaries during their work practice at the enterprises.

Employers are neither obligated to train their staff nor pay training tax or be involved in similar schemes. Thus, employers' contribution is often not rewarded monetarily. Most of their participation in VET happens on a voluntary basis. Exceptions are few, for example, employers receive remuneration for creating and administering professional examinations, the sum of which has been decreased recently and is causing discontent. In workplace-based training, the school can transfer up to one half of the money to the enterprise where the 2/3 of the study takes place. The specific conditions are agreed case by case in a tripartite agreement. Within the national programme 'Developing work practice system in VET,' co-funded by ESF, more support has been foreseen for employers. To date, the allocated funding has not been used fully.

According to the Labour Market Services and Benefits Act (Riigikogu, 2005) employers receive remuneration for supervising work practice of the unemployed. For each work practice hour attended by an unemployed person, the employer receives remuneration for supervision in the amount of 100% of the minimum hourly wage during the first month, 75% during the second and 50% during the third and fourth months the unemployed person participates in work practice. For incentives for the unemployed, please see subsection 6.2.

10. Social partners

Lifelong Learning Strategy 2020 emphasises the importance of cooperation between all VET stakeholders – partners from the employment side, municipalities as well as students and their families. Cooperation has been quite effective throughout the years.

Social partners' participation in VET is regulated by national legislation as well as by the partners' agreements with other stakeholders. At national level, social partners are represented by the Estonian Chamber of Commerce and Industry (Eesti Kaubandus-Tööstuskoda), the Estonian Employers' Confederation (Eesti Tööandjate Keskliit), sectoral associations, and the Confederation of Estonian Trade Unions (Eesti Ametiühingute Keskliit). The Ministry of Education and Research also involves several advisory bodies and social partner organisations in policy development.

Employers are active at all stages in VET. They provide input into VET programmes by participating in Sector skills councils (kutsenõukogud), creating occupational standards

standards for each occupation (Riigikogu, 2008); they also help create national VET curricula. Employers influence allocation of State-commissioned study places through OSKA programme (see below). Employers and municipal authorities participate in advisory bodies in VET schools (see subsection 2.3 for further information), thus participating in planning the development and organisation of teaching and economic activities at school level. Employers participate directly in programming through providing work practice and workplace-based study (see section 5 for further information). Employers are also valued committee members in external evaluation of curriculum groups to ensure quality of teaching (see section 14 for quality assurance). Sectoral associations prepare and administer professional examinations, thus being active in evaluating learning outcomes in VET.

A Sector skills council is an administrative body operating at the Qualifications Authority, which consists, on an equal basis, of the representatives of employees, employers and sectoral associations of the same area of occupational activity and the representatives of the state. Sector skills councils are formed and their activities are terminated by an order of the Government of the Republic.

Sector skills councils develop and implement the occupational qualifications system in their area of occupational activity. The functions of a sector skills council are:

- to make proposals for developing and updating occupational qualification standards;
- to approve occupational qualification standards;
- to give a body the right to award occupational qualification and to participate in supervision exercised over the activities of a body that awards occupational qualification;
- to approve the procedure for awarding occupational qualification;
- to approve the amount of the fee for awarding occupational qualification and recertifying occupational qualification;
- to resolve disputes related to awarding occupational qualification;
- to perform other functions provided in law.

To perform the functions listed above, a sector skills council may engage the employees of the Estonian Qualifications Authority, involve experts or set up working groups.

Social partners are also heavily involved in sectoral forecast of skills needs through a national programme, co-funded by ESF, OSKA. The programme is foreseen to continue after the ESF funding stops. The implementation of OSKA is overseen by the OSKA Coordination Council, which comprises representatives – board members or organisation heads – of the Ministry of Education and Research, Ministry of Economic Affairs and Communications, Ministry of Social Affairs, Ministry of Finance, the Estonian Employers' Confederation, the Estonian Chamber of Commerce and Industry, the Estonian Service Unions' Confederation (TALO), the Estonian Trade Union Confederation and the Estonian Unemployment Insurance Fund.

The Council approves the list of sectoral expert panels and their policies and practices. The Coordination Council approves sectoral reports and proposals put forward by expert panels, if they contribute to the balanced development of Estonian society and are feasible. The Council submits an overview of the state of play regarding labour market and skills and its proposals to the Government through the Ministry of Education and Research. The Council plays a key role in matching labour market needs with training resources, considering the

proposals and suggestions put forward by sectoral expert panels. The work of the Coordination Council is supported by the Estonian Qualifications Authority.

An OSKA general report on changes in labour requirements, labour market developments and the dominant trends over the next 10 years is prepared annually. The report 'Work and skills 2025' (Pärna, O., 2016) looks at future trends affecting employment and analyses their impact on the Estonian labour market. The report builds on world foresight studies and analyses carried out by experts and think tanks and on focus group discussions conducted by the Estonian Qualifications Authority. Highlighting future labour market trends, the programme aims to encourage debates in all parts of society on factors affecting changes in working life, to create the context for and open new lines of thought in relation to forecasting labour requirements in different industries and to provide input to discussions on future training needs.

As mentioned above, employers also prepare and administer professional examinations. The process is regulated by law (Ministry of Finance, 2011). Employers are evaluated before they can administer professional examinations. They must prepare the examinations and submit them to be approved by the respective sector skills council.

An important group of social partners is the students. Student representatives participate in an advisory role in school management as their representatives participate in school councils (see subsection 2.3). The education ministry has met with the Estonian School Student Councils' Union (ESCU) which unites student councils at schools. A joint seminar is in planning stage.

Development of cooperation between general education institutions and VET institutions is one of political priorities in Estonia. Stronger cooperation is aimed at reducing barriers between different types of school and ensuring more efficient use of resources. This is especially important in the current situation where the education ministry has initiated the establishment of State-owned upper-secondary schools (until recently, general schools used to be under the remit of local municipalities). The ministry has already founded 14 new upper-secondary schools in different regions over Estonia and by the 2023 the number of State-owned general upper-secondary schools will be 24.

Some examples of cooperation:

- VET institutions provide optional vocational courses (i.e. in the fields of ICT, car technician, facility services, woodworking, music) to the learners of basic school or general upper-secondary school. The course is funded through the VET institution if its volume exceeds 20 ECVET points.
- Three State-owned institutions (1 general upper-secondary school, 2 VET institutions) in the county of Viljandi arranged a joint campaign for basic school graduates to introduce learning opportunities at the upper-secondary level.

11. Qualifications framework

Estonia has a comprehensive national qualifications framework for lifelong learning, the Estonian qualifications framework (EstQF), including all state-recognised qualifications. The overarching framework brings together sub-frameworks for higher education qualifications, VET qualifications, general education and occupational qualifications with specific descriptors and underpinning quality assurance activities. The EstQF is based on eight levels defined in terms of knowledge, skills and responsibility, and autonomy.

The ambition of the EstQF is twofold; to be a tool for transparency and communication and to aid lifelong learning. The Ministry of Education and Research and the Estonian Qualifications Authority are the main bodies involved in its implementation. A legal and institutional framework has been set up by the amended Occupational Qualifications Act from 2008 (Riigikogu, 2008) and key responsibilities and roles of different stakeholders have been agreed. Quality criteria for inclusion and positioning of qualifications in the framework have been adopted. The framework includes all state-recognised qualifications, which must meet two basic criteria: they must be defined in learning-outcomes-based qualifications standards (curriculum or professional standard) and awarded by nationally accredited institutions.

Implementation of the overarching framework has triggered discussions between different stakeholders and has been used to identify gaps in imbalances in the provision of qualifications. For instance, the EstQF level 5 has been the focus of public debate since the formal adoption of the framework in 2008. Thanks to these discussion, qualifications at level 5 have emerged as the recent VET Institutions Act (Riigikogu, 2013), which came into force in mid-2013, made provisions for qualifications at level 5 (both in IVET and CVET).

A permanent steering group includes stakeholders from different sub-frameworks (general education, higher education, VET, occupational qualifications) and labour market actors to oversee the implementation and evaluate the impact of the EstQF. The EstQF was linked to the EQF and self-certified to the QF-EHEA in October 2011.

12. Teaching

The head of school is responsible for the staff at the VET institution and observes that the staff meet the qualification requirements set out in the VET institutions Act §36. The leading employee of teaching and education must have a Master's level degree or a qualification corresponding to it, educational and management competence and at least three years of experience in education.

The requirements for teachers have been set out in the occupational standards of teachers and vocational teachers. There are presently three occupational standards on EQF levels 5, 6 and 7. Generally, vocational teachers at EQF 5 must have upper-secondary education or vocational upper-secondary education. They must have professional experience or hold a valid occupational qualification in the field they teach. Vocational teachers at EQF level 6 must have higher education or higher education and professional experience in the field they teach. They must also have undergone pedagogical studies in formal education or continuing training courses. Vocational teachers at EQF level 7 must have higher education

in the field they teach, a master's degree and professional experience in the field. If there are no higher education study programmes offered in the field, they must have higher education in any other field, a valid occupational qualification in the field and a long-term experience as a vocational teacher. The percentage of teachers corresponding to the lowest level (EQF 5) must not exceed 20% at any school. The restriction does not apply to the provision of instruction in military specialities.

A vacant position of a teaching and education employee shall be filled by way of a public competition, established by a regulation of the Minister for education and research. A position of a teaching and education employee may be filled without organising a public competition if the time of work at the position is less than 50 per cent of full time. If the public competition organised to fill a vacant position of a teaching and education employee or to substitute for an employee who is temporarily absent, fails, the head of the school may enter an employment contract for a specified term (up to one year in case of filling the vacancy) with a person who has completed at least secondary education. A teacher may provide education, within three years, on a speciality or field of study for teaching in which he or she does not have the necessary qualification if he or she has started to acquire the necessary qualification. An active serviceman, who complies with the requirements for competence, education and work experience described in the relevant professional standard shall be appointed to a position of a teacher with military rank.

VET teachers are mainly trained at universities that provide higher education. The basis for the VET teachers' curriculum is the occupational standard of the VET teacher. VET teachers are mostly prepared at the bachelor's level. One university offers the programme at the master's level. Like other programmes, VET teacher curriculum must offer studies in the amount of at least 60 ECTS to ensure the learners acquire the competencies described in the occupational standard.

Teachers in Estonia have shortened weekly full-time work time. At most jobs the full-time working time is 40 astronomic hours a week, but for teachers 35 hours a week are considered full time. Working part-time is quite common for teachers in VET institutions. In 2016/17 study year, 61% of teachers in VET institutions work part time or with a smaller load than one teaching position. Of the teachers in VET institutions, 4% work with a greater load than one teaching position (Table 12).

Table 12. VET teachers according to teaching load in 2016/17 study year.

The division of teaching load	Number of teachers according to the load	%
<=0,24	550	25%
0,25-0,49	317	15%
0,5-0,74	265	12%
0,75-0,99	200	9%
1	747	34%
>1	94	4%
Total	2173	100%

Source: EHIS.

Most VET teachers (66%) at professional higher education institutions also work part-time. In 2016/17 study year, there were no such teachers there whose load would have been above one teaching position. (Table 13). The reasons why VET teachers at VET schools and professional higher education institutions often work part-time are varied – for example, the teacher may want the arrangement because he/she works somewhere else as well. At the same time, part-time working conditions might arise from the fact that the school cannot offer the full load.

Table 13. VET teachers at professional higher education institutions according to teaching load in 2016/17 study year.

The division of teaching load	Number of teachers according to the load	%
<=0,24	60	46%
0,25-0,49	15	11%
0,5-0,74	9	7%
0,75-0,99	2	2%
1	45	34%
>1	0	0%
Total	131	100%

Source: EHIS.

There are only partial data on how many teachers work part-time in another field than education. “The survey of the usage of teachers’ working time and the practices of paying for additional work” (Ernst and Young, 2016) gave an overview of general education subjects teachers, including those in VET schools. Teachers of vocational subjects were not included. The survey establishes that teachers at VET schools work at additional jobs slightly more (43% vs 32%). One third of these VET school teachers work in education, possibly at another school. By an estimation given by a head of school, around one third of his staff (VET teachers included) work also in industry while teaching. These shares, however, differ heavily by sectors as well as the by the location of the VET school.

The biggest share of teachers is at an age of 50-59 – 30.3% at general schools and 29.2% in VET schools. Young teachers below 30 at VET schools make up 10.7% and those above 63 account for 15.2%. There is no shortage of teachers as such, but the shortage is looming due to replacement needs. To tackle these challenges, the image of the occupation needs to be raised. The new teacher should have relevant support during the first year at the job. Teachers’ profession needs to be made more visible and understandable to the society. Teachers’ career opportunities, including those for international cooperation, need to be explained. Besides young people, potential teachers over 35 must be targeted in a conscious effort. The teachers’ job environment needs to be enhanced and teachers’ salaries need to be raised. Teacher training must be high- quality and flexible. The quality of the recruitment and selection process to the job needs to be raised. Teachers’ experience and skills must enable them to take a sabbatical break from a teaching job and try other jobs, knowing they would be able to return to teaching later.

VET institutions are responsible for training in-company supervisors for work practice as well as apprenticeships. They organise seminars and training courses, supervise and support in-

company trainers. In 2017-18, VET institutions can apply for additional funding from an ESF programme 'Developing work practice system in VET' to finance training for in-company supervisors. The purpose of the training is to raise the quality of supervision during work practice and the efficiency of such training. The courses can be 8-40 academic hours long and participants receive a certificate. Training topics are about preparing, administering and evaluating work practice, for example: didactics, supervision and training provision; curriculum objectives and assessment principles; work practice and supervision for special education needs students; etc.

13. Career guidance

In 2013-2014 educational support services provision in Estonia was restructured. In June 2013, Parliament adopted amendments to the basic schools and upper-secondary schools act, also the Lifelong Learning Strategy 2014-2020 was approved in the beginning of 2014. The strategy sets five strategic goals of which two are closely linked to educational support services:

- correspondence between opportunities for lifelong learning and the needs of the labour market;
- equal opportunities for lifelong learning and growth of participation in learning.

It is expected that educational opportunities and high-quality, flexible career services, which offer diverse choices and consider the needs of the labour market, will increase the number of people with specialist qualifications in various age groups and regions of Estonia. The State must ensure equal opportunities for all people to access free good-quality education, compatible with their abilities. Ensuring equal educational opportunities for children and young adults with special needs, although improved, remains a challenge. To implement the strategy, the Ministry of Education and Research and Foundation Innove have developed a programme to provide and develop both guidance for educational needs and career services.

Since September 2014, there are 15 Rajaleidja ('Pathfinder') centres (one in each county) to provide special educational, speech therapy, social pedagogical and psychological counselling as well as career counselling and career information services in an integrated form. In addition, Rajaleidja centres have taken over the work of the county counselling committees. The centres' direct target group in career services is children and young adults from 15 to 26 years of age, in educational services between 1.5 and 18 years. As to career guidance services, the priority target groups are:

- learners at the third level of basic school (7th-9th grade);
- learners at upper-secondary level in general and VET institutions;
- 18-24-year-olds, who have dropped out of the education system without acquiring more than basic education.

Counselling is also provided to parents, educational institutions' staff, local government and other specialists on topics related to child development and support, organisation of studies and implementation of support measures.

Career guidance in the education sector, including VET, is provided within formal education. Career education is taught as a compulsory cross-curricular theme and additionally as elective courses. Career-related issues are also discussed in student evaluations, during aptitude and professional suitability evaluations and discussions with students with learning difficulties. The schools organise information sessions and visits to fairs, seminars and lectures. Rajaleidja centres visit schools to provide individual and group counselling and career information services. Some Rajaleidja centres work actively with VET schools, by even participating in their admissions committees.

The new modular VET curricula (since 2014) include a learning outcome 'the student understands his/her responsibility to make informed decisions in a lifelong career planning process'. This learning outcome has been incorporated in the key competencies module (6 EKAP). Thus, career management has become an integral part of VET. In developing career planning skills in VET the focus is on self-analysis, how to best use one's professional skills in the labour market, how to keep and raise professional qualifications through continuous self-improvement, how to combine family life and work, how to value health, etc. Currently, some VET schools are focussing on developing career studies and are actively discussing how to plan them efficiently and effectively as part of the learning process, which methods to use, and how to assess the acquisition and level of career competence. Development activities are coordinated by Foundation Innove agency for lifelong guidance. Many other vocational schools have also taken an initiative by implementing projects to ensure the appropriate training for teachers who teach career planning.

There are three occupational standards for career practitioners: 'career counsellors', 'career information specialists' and 'career coordinators at schools'. The standards regulate the required level of education and competencies.

Most practitioners have a background in psychology, youth work, teacher training, information sciences or social work. Career counsellors who have worked for 2-5 years and career information specialists who have worked for 1-3 years have the right to acquire an occupational qualification. At present, 58% of Rajaleidja career specialists have an occupational qualification. There are no regular accredited basic training programmes offered to the career specialists in the public universities. In cooperation with three main public universities there is a joint study programme (9 ECTS – European credit transfer and accumulation system) for the career specialists. Also, specialisation programmes for all three groups of career specialists have been provided. The study programmes are based on the professional skills requirements set out in occupational standards.

Foundation Innove agency for lifelong guidance organises various short and long-term courses for the career practitioners about innovative guidance and information retrieval methods, trends in economy and employment, mobility, etc. To exchange knowledge, related to the provision and development of career services, agency for lifelong guidance organises international study visits in co-operation with colleagues from the Euroguidance network.

In addition to the training programmes, practitioners are supported by methodological and informational materials which are also available on the national web-portal *Rajaleidja*

(Pathfinder). However, the main target group for the portal is the youth and access points are given to the three main issues on the front page (Who I am? What to become? Where to study?). The material is presented in a youth friendly interactive way. There are special sections also for grown-ups looking for guidance and parents wishing to help their children in career planning.

14. Quality assurance

Ensuring quality in the occupational qualifications system includes:

- ensuring the quality of occupational qualification standards;
- ensuring the quality of granting the institutions awarding occupational qualifications the right to award occupational qualifications;
- ensuring the quality of assessment and validation of applicant's competence by the institutions awarding occupational qualifications;
- periodical external assessment by the Estonian Qualifications Authority of the institutions awarding occupational qualifications.

Respective principles and procedures have been established in the occupational qualifications act (Riigikogu, 2008) that in turn proceeds from the requirements of ISO 17924 (general requirements for personal certification).

Teaching an occupation or specialty at a VET school must be based on a school curriculum. A national VET curriculum in any field is the basis for the school curriculum in any 'Upper secondary VET' programme. The national curriculum is designed in cooperation with social partners and is based on the respective occupational standard(s), vocational education standard and the national curriculum of upper-secondary general school. National VET curricula are adopted by the Minister for education and research. Foundation Innove coordinates creating and updating national VET curricula.

School curricula for formal VET, other than 'upper secondary VET' must be based on the vocational education standard and the respective occupational standard(s). If there is no occupational standard, the school must secure a confirmation letter from the employer(s) certifying that this specialty is needed at the labour market.

Quality assurance of school curricula in VET is ensured by their registration process in the Information system for education database EHIS. Before the registration, the curricula undergo a review where their correspondence to the national VET curricula and/or adherence to the legal acts is monitored.

Quality assurance of VET curricula implementation is made up of:

- internal assessment conducted by the VET institution;
- external assessment conducted by independent experts;
- decision passed by the assessment council based on external assessment.

External quality assurance of school's curriculum groups is conducted within the process of awarding the right to provide education. The right to provide education is the right granted

to a school for a specified term to provide initial and continuous VET programmes in the relevant curriculum group. This right shall be granted for three years upon the establishment of a new school or opening study in a new curriculum group.

To extend the right to provide education, the relevant curriculum group must get accredited. Accreditation comprises external evaluation of curriculum groups at schools, based on the school's internal, i.e. self-evaluation reports, and assessment conducted by an external evaluation committee. Performance and sustainability of study processes (teaching and learning), leadership and management, human resources management, cooperation with stakeholders and management of resources are evaluated. Accreditation is organised by the Estonian Quality Agency for Higher and Vocational Education (EKKA).

The Minister for education and research has nominated the quality assessment council for VET under the auspices of EKKA, which approves accreditation decisions and makes proposals on the extension of the right to provide education. The Council has thirteen members representing stakeholders.

Upon the evaluation of the council's proposal the Minister for education and research shall make one of the following decisions:

- extend the right to provide education in a curriculum group for six years;
- extend the right to provide education in a curriculum group for three years;
- refuse to extend the right to provide education, which means the curriculum group must be discontinued and students need to be helped to find ways to graduate in other VET schools.

15. Policy development and initiatives

15.1. Policy development in the past 10-15 years

The priority that VET has enjoyed at EU level due to the Copenhagen process has had a great impact on VET policy development in Estonia. Pan-European initiatives and European Council recommendations have been taken into consideration in the process of drawing up national strategic documents. In 2002 VET in Estonia was very inflexible. The old Soviet VET system, which was accessible to a lot wider group, had been done away with, and it was only possible to study VET together with upper-secondary education or as part of a post-secondary programme. One priority of the Development Plan for the Estonian VET system 2005-2008 was to provide appropriate opportunities for everyone interested. During that time, VET institutions underwent a major change; the inflexible system for secondary studies only, was replaced. The staff, curricula as well as facilities were improved considerably, thus improving the quality of VET provision, which in turn has led to increased attractiveness. A considerable number of objectives, measures and activities in this development plan were inspired by VET developments at the EU level. A few of such initiatives were as follows:

- In the Development Plan for the Estonian VET System 2009-2013 activities were planned to elaborate forecast of labour needs, to update curricula, to implement recognition of prior learning, to popularise VET. All these activities supported development and implementation of European principles.

- The quality assurance model was described in the Development Plan for the Estonian VET System 2009-2013 and was implemented step by step during the period of the Development Plan.
- Until 2013, VET programmes were offered as input based. The guiding principle was the previous education level of the participant. With the new VET law in 2013, this was replaced by an output based system, where all programmes are classified at the respective EQF level. The new system has enabled learners with previous education apply for lower level programmes (e.g. a learner with an EQF 6 or 7 qualification could study in an EQF level 4 programme) making the VET system extremely open and flexible.
- Principles of the system of recognition of prior learning and work experience were developed and added to the Vocational Education Standard in 2009.
- In 2008, a new Occupational Qualifications Act was adopted that established a new 8-level professional qualifications system in Estonia instead of the former 5-level system. The levels of the Estonian Qualifications Framework now correspond to those of the European Qualifications Framework and are linked to them.
- The programme 'Substantive development of VET' (2008-2013), co-funded by ESF has been carried out, by which VET curricula were developed for separate EQF levels;
- As part of the aforementioned programme, teacher training had a special focus on skills to implement the new curricula; teaching and learning materials were created;
- VET has been promoted since 2008 through media, social media and targeted promotions to basic school graduates and the wider society with help from ESF.
- There has been teacher training (2012-14) on how to develop individual curricula for special educational needs (SEN) students. The training was based on the instruction material "Recognition and support of SEN students in VET" (2012). In addition, several VET study materials have been adapted for SEN students.
- National skills competitions have been organised since 2008 and Estonian participants have been prepared for Euroskills and Worldskills.

15.2. New developments, challenges and initiatives

The Lifelong Learning Strategy 2020 (https://www.hm.ee/sites/default/files/estonian_lifelong_strategy.pdf) sets the background for most new developments and initiatives. One of the key messages of this strategy for VET is to reduce the share of adults (aged 25–64) with no professional or vocational training and increase the share of VET learners.

At present the main actions to achieve that are:

- Workplace-based training and work practice implementation. A major challenge is that only 2-3% of enterprises employ more than 200 people and have more resources to support VET and implement alternative study options. Ways need to be found how to motivate small and medium sized enterprises (SMEs). A national programme with ESF co-funding comprising the following subsections: 'Developing work practice system in VET and higher education, including internship in teacher training,' 'Raising the image of VET and extending workplace-based training,' 'Language learning

activities to support a more successful integration in the labour market' has been launched to find solutions.

- Dropping out of VET continues to be a problem despite positive developments in the past two years. Schools are expected to take more responsibility in this area. A special challenge is keeping the most vulnerable learners in VET programmes, since they are not motivated enough. At the same time different actions are supported by the state. State provides schools with relevant data about drop out rates and trends, organise seminars to change experiences and give financial support for schools who pilot new programmes focusing on NEET (not in employment, education or training) youth. Career Guidance and counselling must improve to help the prospective learners to make the right choices in programmes and study fields.
- Discussions are ongoing on how to incorporate OSKA findings in VET provision. Changes in education can't be very fast, although in some cases entrepreneurs are hoping for very rapid and fast changes in skills set of graduates.
- Year 2017, which has been declared the Year of Skills, aims at developing a mind-set that practical skills are valuable and will always be useful. The Year of Skills focuses on opportunities to learn and upgrade skills. The aim is to encourage young people to make educational choices which provide practical skills and adults to upgrade their skills and learn new skills.
- State is encouraging collaborative partnerships between general education schools and VET schools to promote student-centered approach and to offer students more opportunities to engage in flexible learning pathways.
- A national programme "Digital focus 2016-19" co-funded by ESF to support digital competencies also in VET will be implemented by Information Technology foundation HITSA and the education ministry. The objective of the programme is to formulate a holistic approach to develop digital competencies and result-oriented use of digital options in the study process, whereby supporting the implementation of changed approach to studies. Digital focus is one of the key areas of the Estonian Lifelong Learning Strategy 2020.
- Despite an increase in teachers' pay, the attractiveness of the teaching profession and indicators related to teacher training (share of young teachers, gender pattern, and entry into teacher training) have not improved.
(VET) teachers' salaries need to keep increasing, as is getting more and more difficult to find good teaching staff to VET schools.
- Attention is needed in connection with transition to Estonian-language tuition in some vocational education institutions who are more focused on teaching in Russian language. For that, financial support measures are in place for schools, teachers and students.

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Appendix 1. VET provision by fields of study

Broad field ('broad group of study')	Narrow field ('study direction')	Detailed field ('curriculum group')
Education	Education	No formal VET in this narrow field
Arts and humanities	Arts	1) Audio-visual techniques and media production 2) Handicrafts 3) Music and performing arts
	Humanities	No formal VET in this narrow field
	Languages	No formal VET in this narrow field
Information and Communication Technologies (ICTs)	Information and Communication Technologies	4) Computer use 5) Database and network design and administration 6) Software and applications development and analysis
Natural sciences, mathematics and statistics	Biological and related sciences	No formal VET in this narrow field
	Environment	7) Natural environments and wildlife
	Physical sciences	No formal VET in this narrow field
	Mathematics and statistics	No formal VET in this narrow field
Agriculture, forestry, fisheries and veterinary	Agriculture	8) Crop and livestock production 9) Horticulture
	Forestry	10) Forestry
	Fisheries	11) Fisheries
	Veterinary	12) Veterinary
Social sciences, journalism and information	Social and behavioural sciences	No formal VET in this narrow field
	Journalism and information	
Services	Personal services	13) Domestic services 14) Hair and beauty services 15) Hotel, restaurants and catering 16) Travel, tourism and leisure
	Hygiene and occupational health services	No formal VET in this narrow field
	Security services	17) Military and defence 18) Protection of persons and property
	Transport services	19) Transport services

Broad field ('broad group of study')	Narrow field ('study direction')	Detailed field ('curriculum group')
Engineering, manufacturing and construction	Engineering and engineering trades	20) Chemical engineering and processes 21) Electricity and energy 22) Electronics and automation 23) Mechanics and metal work 24) Motor vehicles, ships and aircraft
	Manufacturing and processing	25) Food processing 26) Materials (glass, paper, plastic and wood) 27) Textiles (clothes, footwear and leather) 28) Mining and extraction
	Architecture and construction	29) Architecture and town planning 30) Building and civil engineering
Health and welfare	Health	31) Medical diagnostic and treatment technology 32) Therapy and rehabilitation
	Welfare	33) Care of the elderly and of disabled adults 34) Child care and youth services 35) Social work and counselling
Business, administration and law	Business and administration	36) Accounting and taxation 37) Finance, banking and insurance 38) Management and administration 39) Marketing and advertising 40) Secretarial and office work 41) Wholesale and retail sales 42) Work Skills
	Law	No formal VET in this narrow field

Appendix 2. Additional information on OSKA programme

OSKA Panel of Advisers

The OSKA Panel of Advisers contributes to the development of the OSKA methodology and to preparing the decisions of the Coordination Council. It has the task of being a partner and adviser to the Estonian Qualifications Authority. While the Coordination Council comprises representatives appointed by managements of organisations and authorities, the Panel of Advisers includes, besides the organisations represented in the Coordination Council, the best experts in the labour market and education fields from Estonian universities, research companies, professional associations, etc.

Sectoral expert panels

Sectoral expert panels were established at the Estonian Qualifications Authority to prepare forecasts of labour requirements and skills in OSKA sectors. The expert panels bring together the best experts from among job creators, schools and public authorities.

Sectoral expert panels help to look at the whole picture of the needs for labour and skills in each sector. Forecasts of workforce and skills' requirements, including proposals for delivering the desired changes, are prepared with the support of analysts and a coordinator of the Estonian Qualifications Authority. The proposals may be addressed to very different stakeholders, such as training providers, developers of curricula, professional associations, etc.

OSKA methodology

OSKA applied research surveys on sectoral needs for labour and skills are unique because they use a combination of qualitative and quantitative research methods and analyse professional qualifications across all levels of education. For this purpose, both statistical data and information collected from personal interviews with sectoral experts and from group discussions are used. Five economic sectors are examined each year. Each sector is analysed every six years on average. In the intervening years, the relevant sectoral expert panels keep an eye on the implementation of the recommendations made on the basis of the conclusions of the survey.

Quantitative analysis builds on the data from the relevant registers and surveys (EHIS, the Labour Force Survey, the Population and Housing Census 2011, sectoral surveys, EKOMAR, etc.) as well as on the forecasts of labour requirements prepared by the Ministry of Economic Affairs and Communications.

Further information on employment, skills and qualifications is collected from personal interviews with sectoral experts and from group discussions. The interviews examine future economic trends and the resulting changes in the needs for workers, skills, education and training in each sector, and provide input with suggestions for improving qualifications. Sectoral expert panels also assess labour requirements in quantitative terms and training capacities broken down by key professions.

An OSKA general report on changes in labour requirements, labour market developments and the trends influencing them over the next 10 years is prepared annually.

Appendix 3. VET programmes by EQF levels

EQF Level	Requirements for commencing studies	Type of study	Volume of studies in EKAP (Estonian VET credit point, where the whole year is 60 EKAP)	Work-based learning (Practical workshops at schools and work practice at an enterprise)	After graduating student will have occupational qualifications for professions that belong to the following main group of professions:	After graduation
2nd EQF level VET	Basic education not required	IVET (initial VET)	15-120	Work-based learning at least 70% of study volume	"Unskilled workers"	May enter the labour market. May acquire basic education pursuant to general procedure, simultaneously with studies in VET or after graduation.
3rd EQF level VET	Basic education not required	IVET	15-120	Work-based learning at least 50% of study volume	"Operators of equipment and machinery", "Skilled workers and artificers", "Skilled workers in agriculture and fishery" or "Service and sales staff" in simpler occupations.	May enter the labour market. May acquire basic education pursuant to general procedure, simultaneously with studies in vocational training or after graduation. A person who has acquired basic education and completed 3 rd level vocational training may continue acquiring secondary education in a VET institution or upper-secondary school.
4th EQF level VET	Basic education required for IVET.	IVET and CVET (continuing VET)	IVET: 15-150; curriculum group for music and	Work-based learning at least 50% of the volume of VET component;	"Operators of equipment and machinery", "Skilled workers and artificers", "Skilled workers in agriculture and	May enter the labour market. May continue studies in CVET

	<p>Persons who have not acquired basic education but who are at least 22 years of age may commence studies in 'upper-secondary VET' if they have competencies that correspond to basic education.</p> <p>4th level IVET may also be carried out as post-secondary.</p> <p>For CVET, work experience in a profession that requires at least 4th EQF level qualification, or corresponding competencies and basic education.</p>		<p>performing arts: up to 180;</p> <p>'upper-secondary VET' up to 180.</p> <p>CVET: 15-60.</p>		<p>fishery", "Service and sales staff" or "Officials" in more complicated occupations.</p>	<p>If he or she has acquired secondary education, may continue studies in professional higher education or Bachelor studies.</p> <p>May want to take advantage of the additional year to prepare for State examinations and/or higher education.</p>
5th EQF level VET	<p>Secondary education required for IVET.</p> <p>For CVET, work experience in a profession that requires at least 4th or 5th EQF level of qualifications, or corresponding competencies and secondary education.</p>	IVET and CVET	<p>IVET: 120-150, military and public defence curriculum: 60-150.</p> <p>CVET: 15-60</p>	Work-based learning at least 50% of study volume	<p>IVET: "Mid-level specialists and technicians" or "Officials". CVET: "Operators of equipment and machinery", "Skilled workers and artificers", "Skilled workers in agriculture and fishery", "Service and sales staff" or "Officials" in more complicated occupations.</p>	<p>May enter the labour market.</p> <p>May continue in 5th EQF level CVET.</p>