

## The Estonian Higher Education System

### Strategic Objectives

The aim of the **Estonian Higher Education Strategy 2006-2015** is to ensure the internationally competitive quality of the higher education (HE) offered in Estonia, a volume of HE that corresponds to the needs of Estonia and the development of education and culture in the Estonian language. The strategy seeks to develop a functional structure of HE in Estonia, to develop the social dimension of HE and to guarantee that HE serves Estonia's developmental interests and innovation. The strategy addresses three main challenges for the sector in the coming years. First, the number of students entering HE is expected to decline in the coming years due to demographic situation. Second, there is a clear need to strengthen the international dimension of HE institutions. Third, additional funding – both for infrastructure and human resources – is of vital importance for the sustainability of the system. The **Estonian higher education internationalisation strategy** is a subdocument of the Higher Education Strategy which postulates the main HE internationalisation principles and activities in order to improve the quality of HE, raise Estonia's competitiveness in the region and make our universities more visible.

### The nationally prioritized academic fields of study that present increasing employment opportunities include:

- Engineering
- Manufacturing and processing
- Computer sciences
- Biosciences and environmental protection (environmental technology)
- Natural sciences related to physics
- Healthcare

### Prioritized fields of study in professional higher education include:

- Engineering
- Computer sciences
- Manufacturing and processing
- Healthcare
- Personal service provision

According to the **Estonian Research and Development and Innovation Strategy „Knowledgebased Estonia“ 2007-2013** there are priority fields which need special attention from the side of the state. Human as well as material resources have to be focused on technologies and key areas, where success can be achieved in world level frontier research and which are important in establishing sustainable economic growth. For achieving this, priority areas and technologies of national R&D programmes have been given a preferred status also in other horizontal support measures financed either from structural funds or state budget. Most appropriate financing measures should be agreed in all R&D programmes. **National research and development programmes** are launched on the basis of the strategy and with the funding from the ERDF:

1) for developing key technologies:

- information and communication technology (9,9 mln €)
- biotechnology (7,5 mln €)
- material technology (9,9 mln €)

2) socio-economical sectors which are important to every resident of Estonia:

- energy technology (7,5 mln €)
- national defence and security;

- health care and welfare services (9,9 mln €)
- environmental protection (9,9 mln €)
- information society;

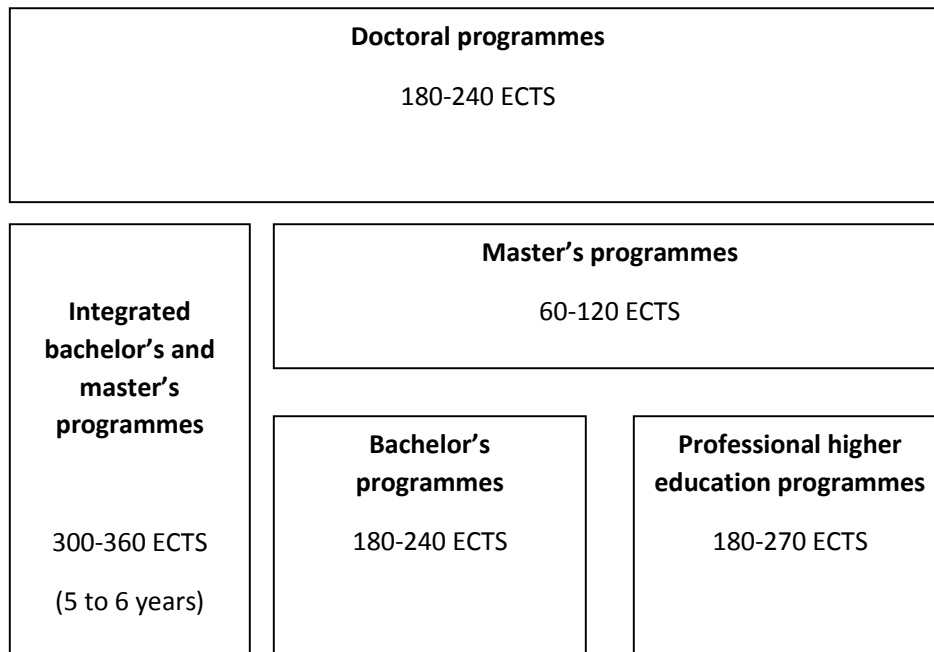
3) Fields related to Estonian national culture, language, history, nature and the Estonian state.

### General Overview

General legislation for higher education in Estonia is detailed in the following legal acts:

Republic of Estonia Education Act, Universities Act, Institutions of Professional Higher Education Act, Private Schools Act, Vocational Educational Institutions Act, and Standard of Higher Education.

Starting from the 2002/2003 academic year, higher education comprises three cycles, following the bachelor-master-PhD model of the European Higher Education Area.




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**Secondary education (general or vocational)**

Figure 1. Higher education system in Estonia

## Higher Education Institutions

A **university** is an educational, creative, research and development institution where instruction corresponding to the Standard of Higher Education is provided at the three levels of higher education. Universities provide bachelor's, master's, and doctoral programmes, but may also offer professional higher education in their colleges.

**Professional higher education institutions** and **some vocational education institutions** offer professional higher education. A professional higher education institution may also provide master's programmes. The function of an institution of professional higher education is to promote lifelong learning responding to the needs of the labour market, to provide services covering study and development activities, to conduct applied research and to shape its students to become responsible citizens able to act on their own initiative. In pursuing their mission, institutions of professional higher education cooperate with various institutions and communicate actively with the public, supporting society's development by conducting effective development and innovation activities and applied research in their field.

As to the form of ownership, educational institutions may be state, public, or private.

*Definitions related to research and development (from Research and Development Organisation Act):*

**Basic research** is original theoretical study or experimentation to gain new knowledge of the fundamental aspects of phenomena and observable facts without aiming at any immediate application for the knowledge gained.

**Development** means an activity of applying new ideas and the knowledge gained through research and experience to produce new materials, products or equipment, as well as to introduce processes, systems or services, or to improve them significantly.

**Innovation** is the application of new ideas and knowledge to implement novel solutions, including the development and improvement of products and services (product innovation); capture and expansion of relevant market shares (market innovation); creation and introduction of new sales, delivery and production methods (process innovation); innovations in management and organisation of work (organisational innovation); and development of working conditions and staff skills (staff innovation).

**Applied research** is original study undertaken to acquire new knowledge, with the primary objective being to implement that knowledge in a specific field within a relatively short period of time.

TABLE 1. Student and educational institution numbers in 2013

| Higher education institutions (HEI) | No of HEIs | No of students |
|-------------------------------------|------------|----------------|
| Public universities                 | 6          | 49 406         |
| Private universities                | 1          | 1540           |
| State institutions of prof HE       | 9          | 9 094          |
| Private institutions of prof HE     | 10         | 6 421          |

|                           |           |               |
|---------------------------|-----------|---------------|
| State institutions of VET | 2         | 1 516         |
| <b>Total</b>              | <b>28</b> | <b>67 977</b> |

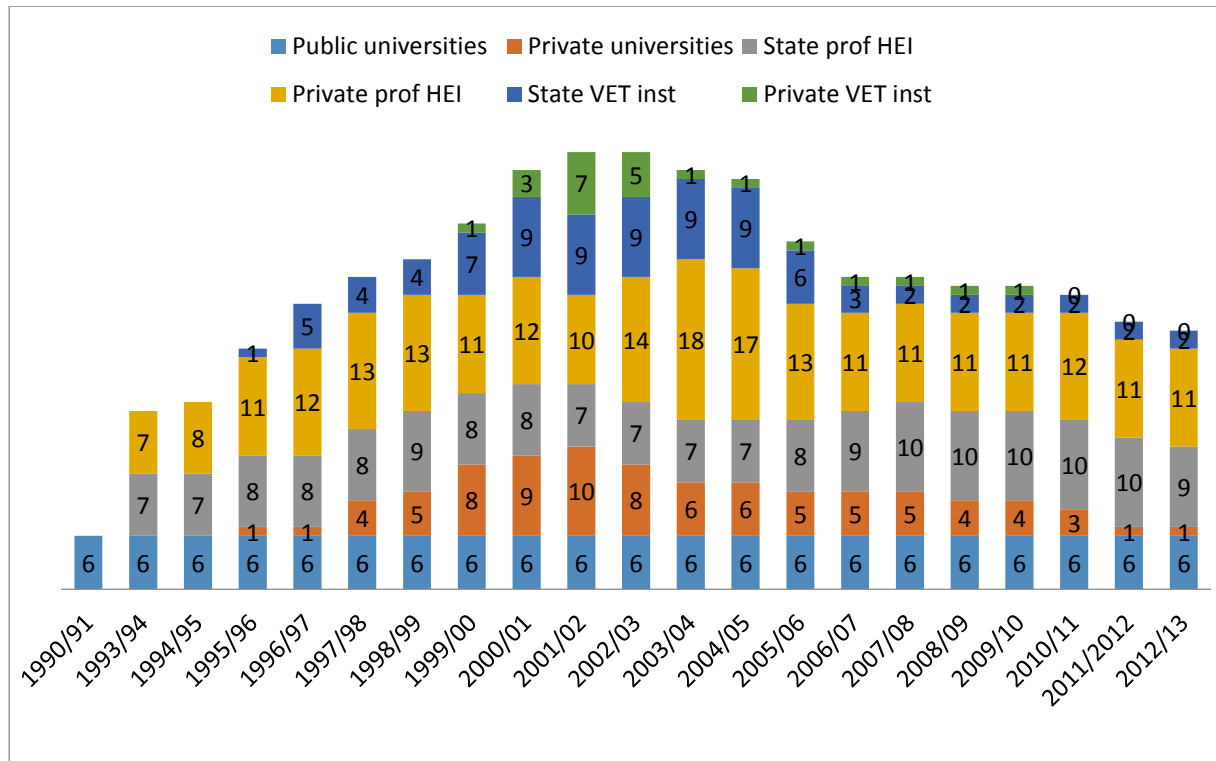


Figure 2. Number of higher education institutions 1990 - 2013

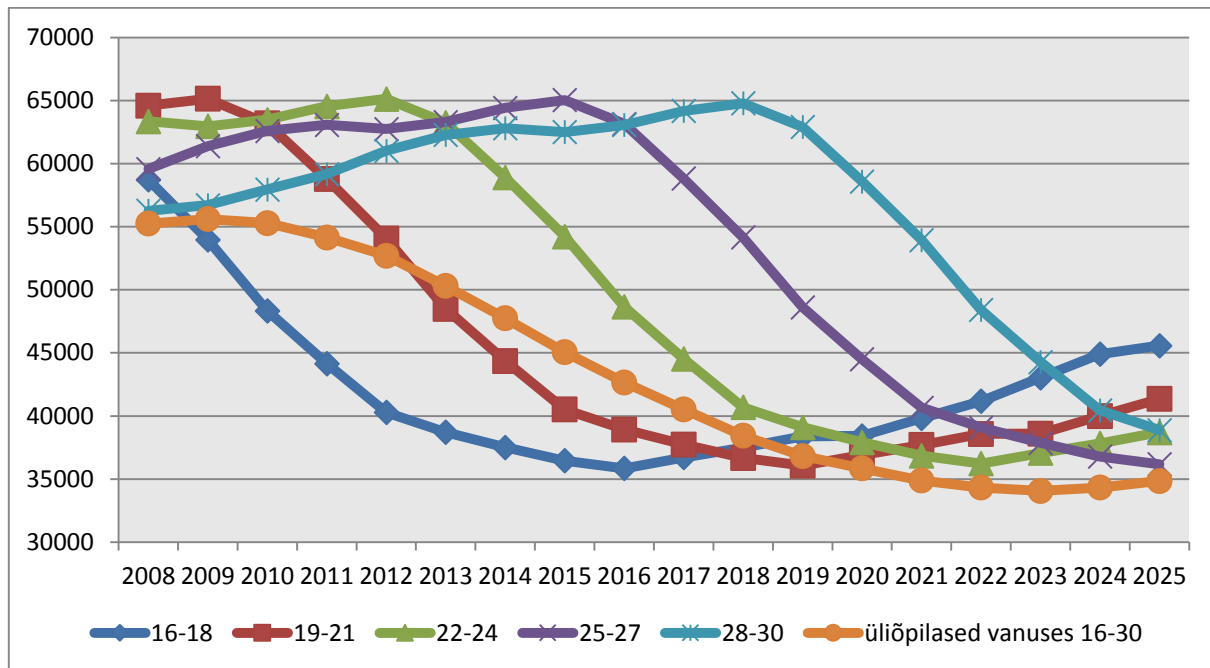


Figure 3. Inhabitants in Estonia aged 16-30 and the estimated number of students (Eurostat)

### Admission Requirements

The requirement for access to higher education is secondary education, certified by *Gümnaasiumi lõputunnistus* (Certificate of General Secondary Education), *Lõputunnistus kutsekeskhariduse omandamise kohta* (Certificate of Vocational Secondary Education), the corresponding qualifications of earlier systems, and foreign qualifications that give access to higher education. The certificate of general secondary education is issued after 12 years of schooling (9 years of basic education and 3 years of general secondary education). In order to complete the general secondary school programme, it is necessary to take national examinations.

The higher education institution may introduce specific admission requirements, such as entrance examinations, national examination minimum scores, interviews, etc.

### Credit System

Student workload is measured in credits. Effective from the 2009/2010 academic year the European Credit Transfer and Accumulation System (ECTS) has officially been in use. One ECTS credit corresponds to 26 hours of work by a student. The workload of one academic year is 1560 hours that corresponds to 60 ECTS credits.

### Estonian National Qualifications Framework for Higher Education (NQF-HE)

The Estonian NQF-HE includes four qualifications, of which two — the bachelor's degree and professional higher education diploma — differ in respect to their profile, although both correspond to the first cycle of the Qualifications Framework of European Higher Education Area (QF-EHEA); the master's degree corresponds to the second cycle of the QF-EHEA and the doctorate to the third cycle. All degrees offered by Estonian higher

education institutions are currently end-of-cycle degrees, meaning that the learning outcomes achieved through obtaining a given degree are at the same level as the corresponding level in the NQF-HE. This implies that there are no intermediate degrees in the Estonian higher education system.

TABLE 2. Correspondence between levels/cycles of Estonian and European qualification frameworks

| Estonian National QF for HE  | QF for EHEA | Estonian QF for LLL | EQF for LL | Higher Education in Estonia |
|--|-------------|---------------------|------------|-----------------------------|
| PhD level  | 3rd cycle   | Level 8             | Level 8    |                             |
| Master's level (including Integrated Bachelor's and Master's programmes) | 2nd cycle   | Level 7             | Level 7    |                             |
| Bachelor's level, Professional HE level                                  | 1st cycle   | Level 6             | Level 6    |                             |
| Short cycle  |             | Level 5             | Level 5    |                             |
|  |             | Level 4             | Level 4    |                             |
|  |             | Level 3             | Level 3    |                             |
|  |             | Level 2             | Level 2    |                             |
|  |             | Level 1             | Level 1    |                             |

### Professional Higher Education Programmes

Professional higher education is higher education of the first cycle, the purpose of which is to acquire the competencies necessary for working in a certain profession or for continuing studies at the master's level. The standard period of study is 3 to 4 years (180-240 ECTS). Midwifery studies and specialised nursing studies last 4.5 years (270 ECTS). The qualification awarded upon completion of the programme is *Rakenduskõrgharidusõppe diplom* (Professional Higher Education Diploma). The qualification gives access to master's programmes.

### Bachelor's Programmes

Bachelor's programmes are first-cycle higher education programmes. The purpose of bachelor degree studies is to broaden the scope of general education, to develop the basic knowledge and skills required for a certain field of study necessary for continuing at the master's level or for access to the labour market. The standard duration of the programmes is generally 3 years (180 ECTS); as an exception, it may be up to 4 years (240 ECTS). The qualification awarded upon completion of the programme is *bakalaureusekraad*. This qualification gives access to master's programmes.

### Master's Programmes

Master's programmes are second-cycle higher education programmes. The purpose of master degree studies is to develop the knowledge and skills required for a certain field of study and to acquire the necessary competences in order to enter the labour market or to continue studies at the doctoral level. The access requirement is a first-cycle higher education qualification. The standard duration of the programmes is 1 to 2 years (60-120 ECTS), but together with the first-cycle studies it is at least 5 years (300 ECTS). The qualification awarded upon completion of a master's degree programme is *magistrikraad*. This qualification gives access to doctoral programmes.

### Integrated Bachelor's and Master's Programmes — long cycle degrees (equal to master's degree)

Integrated bachelor's and master's programmes comprise both basic and specialised studies. Such long-cycle programmes are offered in the fields of medicine, dentistry, pharmacy, veterinary medicine, architecture, civil engineering, and class-teacher training. The standard duration of medical studies and of veterinary studies, effective from the 2002/2003 academic year admissions, is 6 years (360 ECTS). The standard duration of other integrated programmes is 5 years (300 ECTS).

The qualification awarded upon completion of an integrated study programme in the fields of pharmacy, architecture, civil engineering, and class-teacher training is *magistrikraad*; the other qualifications are *arstikraad* (in medicine), *hambaarstikraad* (in dentistry), and *loomaarstikraad* (in veterinary medicine). These qualifications give access to doctoral programmes.

### Doctoral Programmes

Doctoral programmes represent higher education of the third cycle, the purpose of which is to acquire the knowledge and skills necessary for independent research, development, or professional creative work. The access requirement for doctoral studies is a *magistrikraad* or a corresponding qualification. The standard period of study is 3 to 4 years (180-240 ECTS). The qualification awarded upon completion of doctoral studies is *doktorikraad*. *Doktorikraad* is a research degree obtained after the completion and public defence of a dissertation (*doktoritöö*) based on independent scientific research or creative work.

### Governance and Financing of Higher Education

Higher education institutions operate under the administrative jurisdiction of the Ministry of Education and Research, except the Estonian National Defence College and the Estonian Academy of Security Sciences (both being professional higher education institutions) which operate under the administrative jurisdiction of the Ministry of Defence and the Ministry of Internal Affairs respectively.

The Ministry of Education and Research has a key role in shaping the Estonian higher education policy. Its main areas of responsibilities are: 1) to allocate state-funded student places amongst educational institutions; 2) to allocate funds to professional higher education institutions; 3) to approve the development plans of professional higher education institutions; and 4) to fulfil the function of state supervision. The Estonian Government and Parliament determine general development trends for the Estonian higher education system, including the level of funds to be allocated to higher education and research.

Estonia, like other countries in the region, has experienced an increase in student numbers. In addition to publicly funded higher education, the private sector and the tuition-sponsored student places at public higher educational institutions also absorb some of the demand for higher education. Universities also operate the so-called "open universities" to meet demand for higher education, and to obtain additional revenue. Students at these open universities are usually admitted without entrance examinations and are required to pay tuition (Eurydice, 2005). Until 2012, there has been a dual track tuition system in Estonia. The students who score above a certain cut off point on the entrance examinations are admitted to state-funded student places at public higher education institutions. In general the Ministry of Education and Research sets the number of state-funded student places at higher education institutions according to predicted needs in the labour market. Those students who are admitted beyond this quota have to pay tuition. Private university-type higher education institutions are financed by their own means. Yet, the state may participate in financing certain study programmes if there is a public demand for the qualifications provided by this institution.

In 2011 the Estonian Government initiated significant reforms in the financing of higher education. The main changes are related to the state-funded student places, and to the financing of higher education institutions from the state budget in general. The aim is to increase the fairness of the higher education system and the efficiency of studies, reduce the inequities among the various fields of higher education and increase the accountability of institutions of higher education to ensure the quality of education.

All students who have fully satisfied the requirements of their curricula are able to study for free in Estonian-language curricula as of the **2013/2014 academic year**. In order to retain their free student places, the students will have to meet the requirements of their curricula in full each semester. If a student is unable or

unwilling to meet the requirements of the curriculum in full, the institution of higher education will have the option of demanding compensation for the study costs by the student up to the maximum limit established by the Government of the Republic (€ 50 per 1 ECTS).

For various reasons, students are usually unable to meet the requirements of their curricula in full while studying abroad; and in order to promote mobility, the law provides exceptions in regard to the study period spent abroad.

A significant change involves the abolition of the concept of state commissioned education and the complicated mechanism of coefficients and basic costs of a student place that served as its basis. According to the reform, institutions of higher education will, in the future, receive performance support from the state budget for providing higher education as such. Institutions of higher education who will receive state funding will make decisions regarding the number of student places created for each field based on their profile and function. Should the state have a specific shortage of graduates in a certain field, it can establish its needs through **performance contracts**.

The new financing model will have a three-year transition period. From 2016, 70–75 per cent of funds shall be calculated for the support of activities connected with the **extent, quality and efficiency of provision** and 25–30 per cent from the amount of allocated funds shall be calculated for the **support of activities which provide instruction of national importance**.

The extent, quality and efficiency indicators are as follows: the number of students admitted, the number of students studying at foreign educational institutions, the number of foreign students studying at the university, the number of foreign teaching staff employed as ordinary teaching staff and the number of full-time students (*extent*); achievement of objectives established in the previous performance agreements, previous study results of enrolled students, continuation of studies at the next academic level and the employment of graduates (*quality*); and the number of graduates from a university, and the number of graduates in broad groups of studies of national importance (*efficiency*). Indicators will create different proportions (for example, the number of graduates influences the funding much more than the number of foreign teachers).

The current system will still remain effective for funding doctoral studies. Private institutions may also apply for state support, but if the state grants their requests, they will lose the right to charge their students full tuition fees.

The following sums have been assigned for the implementation of the law in the corresponding action programme of the Government of the Republic: € 6.1 million in 2013, € 18.8 million in 2014 and € 33.0 million in 2015.