REPORT 2022

The future of higher education

Development trends up to 2035

Summary

FORESIGHT CENTRE

An independent think tank at the Riigikogu

Summary of the lines of research

Higher education has a value for individuals, the economy, and the whole of society. People are motivated to invest in higher education because they expect greater welfare in the future through higher income and the better quality of life that that allows, and also intellectual enrichment and a more varied life. In economic terms, higher education is a technology that can be used to raise the value of human resources and so bring higher tax revenues for the state while helping make savings on health and social costs. Higher education preserves and develops the language and culture of a society, and gives it some of the capacity needed to manage and to adapt to the processes that affect it, such as climate change and the loss of biodiversity, changes in geopolitical alignments, and increasing technology intensity. Higher education studies give a better understanding of different perspectives and cultures, and so enhance connections and security within society.

Expectations for higher education studies are changing. People change jobs, and even profession, at an ever faster rate, and work for a wage is increasingly being replaced by selfemployment. Average life expectancy is extending at the same time, and the retirement age is rising, meaning people will have more and more years of active work life. Students that used to be considered untraditional are becoming more usual, such as mature students who have delayed their studies, those who are working while studying, those who have dependants, or those who have not completed a standard secondary education. This all leads to the expectation that higher education should suit different lifestyles and priorities. Higher education being concentrated in the early part of people's lives, and the one-size-fits-all principle used in the supply of it, no longer meet these demands.

Changes in the higher education landscape are being driven by four main trends in developments.

Digitalisation is making working processes more effective and is in theory allowing more students to study for the same cost base, as there is lots of space on the internet. It should be remembered though in practice that the world's most prestigious universities also offer a lot of online courses. Retaining students means standing out by providing personalised services, though this brings additional costs.

Internationalisation is increasing the potential market for institutions of higher education and allowing them to attract international talent, but the global market also means that they are exposed to global competition.

Personal solutions and flexibility about the time, place, form and amount of studies are becoming a matter of course, and are encouraging diversity in higher education.

Higher education institutions are expected to give support in managing how **society copes with major changes** and in searching for solutions to problems.

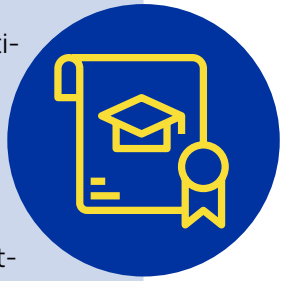
Surveys among education experts in Estonia have revealed that the most important factors in shaping the future of Estonian higher education will be the way that digital technologies are applied and the role that universities start to play in the market for further education.

Three stories from the future of Estonian higher education

The state lifelong learning scenario

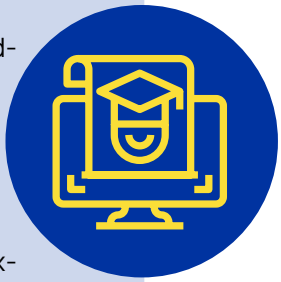
The state lifelong learning scenario gives higher education institutions an advantage in the further education market, by giving them the exclusive right to offer micro-degrees for example. Higher education institutions work hard to meet changed career expectations and offer flexible options for studies to make it easier for students to gain an education while working. Fee-based education brings significant additional revenues to the budgets of the institutions. The numbers of both students and teaching staff at institutions rise.

The elite higher education scenario



The elite higher education scenario sees strictly market-based competition in the lifelong learning landscape. New market participants, especially education technology companies but also vocational schools and practical training providers, react flexibly and often offer better value than higher education institutions, by teaching in various formats with contact teaching or online teaching or a combination of the two, and by experimenting more with the content of the studies and with teaching methods. Higher education institutions become more elite, they consolidate, and the sector as a whole shrinks.

The virtual university scenario



The virtual university scenario sees both the content and the form of studies digitalise. Technological solutions are not just a tool for teaching but are increasingly an integral part of learning, from the technologies used in the virtual classroom and for testing and assessment, to those used in organising admissions and certification, and for career planning. Machine learning and artificial intelligence solutions offer personalised learning experiences. Everybody can learn at their own speed and games help to engage the attention of learners.

As studying becomes more international, the market power of global technology giants increases and the platforms run by Google and Microsoft start to dominate the education landscape. Higher education institutions find their own niche in the global market by offering subject courses over digital platforms, though their profitability is limited by the rules set by the platform. Institutions do not really gain any part of the growing market for lifelong learning.

"It would benefit higher education in Estonia if completing studies within the nominal time were abandoned as a criterion of quality, as it is actually counter-productive and does not indicate that the study process is efficient, but rather that higher education institutions are prepared to issue diplomas that are not backed by knowledge and skills."

Professor Rein Raud

Illustration by Karmo Ruusmaa

Although the higher education strategy recognises that Estonian universities are internationally competitive and open, higher education in Estonia faces several challenges:

- **The target for the share of people in higher education has not yet been met**, as Estonia has not moved any closer to the target of 45% of the 25–34 age group set in the Estonian Education Development Plan in 2017.

- **Drop out rates for students are notably higher than in other countries**, partly because the current system of study grants based on need and tuition fees punishes failure to complete the curriculum severely.

- **Working and studying at the same time makes it hard to meet the target of completing courses within the nominal time limit**, as studying full-time places a heavy burden on students.

- **The labour market does not offer all graduates a job that needs higher education**, and the mismatch between education and the demand for qualifications, or the problem of people being over or undereducated for their jobs, was above the OECD average in Estonia in 2016, especially for older women.

- **Higher education does not have a very obvious effect on wages**, as those who have not completed their studies are often treated the same as those who never started studies, while a large share of those with higher education have secondary vocational education, which attracts lower wages than other forms of higher education because it is outdated.

- **The difficulty of covering living costs hinders access to higher education**, while the insufficient needs-based grants and expensive study loans make it hard for students from poorer backgrounds to enter higher education.

- **Funding higher education from the budget decisions taken each year by the government is not sustainable**, as state spending on higher education increased by 15% from the education reform in 2013 to 2020, while GDP increased by 42% and the average gross wage by 53%.

There are two choices for the future funding of higher education.

1 The less radical solution is to **complete the reform of free higher education by increasing support grants** while reforming loans and grants. Analysis from the monitoring work shows that increasing support for activities by 10% a year would bring 95 million euros more into the budgets of higher education institutions by 2028 than if current funding trends continue. This is the most expensive alternative for the state.

Estonia's experience so far has shown that being able to study without tuition fees does not on its own ensure equality in education, as access to higher education is limited for students in the worst circumstances by problems in covering their living costs while studying. Unlike other countries where higher education is free, Estonia does not have sufficient needs-based study grants or cheap study loans. **Ensuring equal access to higher education is particularly important with free higher education, because if only the wealthy are in education but it is funded by all taxpayers, then in effect the poor are being taxed to educate the rich.**

2 **A more fundamental change would be to set tuition fees** at either a low or a high level. This would be in line with the recommendation of the World Bank that the cost of higher education[1] should be divided between the state and the individual. Recent calculations of the return from higher education to the state and to the individual show the ideal level of state funding to be up to 80% of the cost of higher education. Setting a tuition fee of 1000 euros for example would bring higher education institutions additional revenues of around 29 million euros a year if it was applied in full, while tuition fees of 5000 euros would bring in 137 million euros a year.

This is a large financial burden for university students that also assumes additional support from the state. The scenarios containing tuition fees consequently also consider another fundamental change by **linking the repayment of study loans to the later income of the graduate**. Linking the obligation to repay the loan to later income helps students from less wealthy backgrounds to enter higher education, partly because the option of taking a study loan means that limited finances are less of an obstacle to entry to education, and partly because linking the loan repayments to later income reduces the risk of them being unaffordable in future.

To provide analytical support for the changes to the system for funding higher education, the Foresight Centre has created a **financing calculator for higher education**[2]. Anyone can use the calculator to try out different funding options and assess the indirect financial impact of changes.

[1] Männasoo, K., Põder, K., Ferraro, S., Hein, H., Rozeik, H. (2022). Funding models for higher education and their future security (in Estonian). Foresight Centre.
[2] The calculator can be found at https://arenguseire.ee/korghariduse-rahastamise-kalkulaator (in Estonian).

Estonian society generally does not favour tuition fees and considers that if anybody should pay, it should be students with worse grades, not those who are wealthier than the average. The attitudes of society generally reflect the current system, as those who did not have to pay for their own studies expect that others should get free education, while those who paid for their studies are in favour of tuition fees.

On top of tuition fees, there are other ways to attract additional funding for higher education or to increase internal efficiency:

- Introducing education vouchers for subjects with greater market demand, meaning that the education institution gets a fixed sum of money for each student. The education voucher system has produced good results in the Netherlands and Belgium for example. One option would be to use education vouchers in limited amounts in subjects like law, ICT, business and administration.
- Procurements for teaching certain types of professional. The state announces a procurement for graduates in a particular subject, and different universities can apply to teach them. This allows rapid reaction to future pressures coming from the needs of the labour market.
- Giving higher education institutions a regulatory advantage in creating a market for further education, such as the exclusive right to issue micro-degrees. Micro-degrees could be combined to total an academic degree, and this solution could be beneficial for both the student and the institution.
- Tax breaks for companies that pay study loans. Companies could be allowed to pay the study loans of their employees without paying the fringe benefit tax.

FORESIGHT CENTRE