Estonian Education System 1990-2016: Reforms and Impact



he Estonian education system has a long history - its first academic schools were founded in 1630 (Tartu) and 1631 (Tallinn). In 1632, the first university, the University of Tartu, was founded. In the second half of the 17th century, the first Estonian folk-schools were opened. The aim of those schools was to provide education in the native language so that students could read the Bible. According to the census in 1897, the level of literacy in Estonia was 79.9 percent, the highest in the Russian Empire (56.3 percent in Moscow and 62.2 percent in Saint Petersburg). In 1920, six grades of education were made compulsory, which rose to eight grades in 1959-1963 and nine grades in 1968-1988. The Estonian education system maintained its peculiarity during the Soviet occupation - teaching was in Estonian, the atmosphere in schools derived from progressive ideas and democracy, textbooks were by Estonian authors, and teaching arts, music, and foreign languages were given a great emphasis.

EDUCATION SYSTEM TODAY

The governance of the education system is shared between central and local authorities, and schools have a high level of autonomy in resource allocation. The state sets national standards and establishes principles of education funding, supervision, and quality assessment. Early childhood education and care is managed by local authorities and most decisions in lower secondary education are made by the school. Most schools are public (96 percent compared to the OECD average of 81.7 percent). Higher education is divided between professional higher education institutions and universities. Both can give a doctoral degree and are accessible to graduates of general and vocational upper secondary schools. Estonia's expenditure on educational institutions as a percentage of GDP per student (for all education levels combined) is below the OECD average, with a higher share of public funding than the OECD average.

PUBLIC OPINION

The long history of folk-schools has shaped the opinion of public education as a great value. Also, the high level of sec-

NINETY PERCENT OF 25- TO 64-YEAR-OLDS IN ESTONIA HAVE AT LEAST A SECONDARY EDUCATION (THE OECD AVERAGE IS 75 PERCENT)

ondary education and parental expectations of their children reflect that. Ninety percent of 25- to 64-year-olds in Estonia have at least a secondary education (the OECD average is 75 percent). That is the highest result among the members of the European Union. Forty-five percent of 25to 64-year-old women have a higher education degree (the OECD average is much lower – 34 percent). Secondary students' parents have more books at home and this contributes to general knowledge. In Estonia, there are on average 176 books per home, compared to 154 books per home in Latvia and 120 books per home in Lithuania.

STRENGTHS OF THE ESTONIAN EDUCATION SYSTEM

Estonia is an overall high performer in PISA 2012, with policies that promote equality in the education system. Estonia achieved higher results in mathematics, reading, and science compared to other OECD countries. Results have improved in reading, but remained unchanged in mathematics and science, compared to previous PISA cycles. Moreover:

• Estonia has the smallest number of low performers in Europe and very few compared to the whole world;

• The difference between rural and urban students' education levels is the world's smallest;

• Socio-economic background of students' parents has little influence on students' progress. It means that children originating from underprivileged families can get high results in school;

• Estonia has the fewest students without a basic education in the world. Only 5 percent of all students do not achieve a basic education. In Iceland, there are 24 percent, in Switzerland 12.8 percent, and in Lithuania 16.2 percent;

• Participation in early childhood education and care, which is mainly provided by public institutions, is higher than in other OECD countries. While compulsory school attendance generally begins at the age of seven, almost all 4-year-olds (91 percent) and most 3-yearolds (87 percent) were enrolled in early childhood education institutions in 2013 (well above the OECD average of 84 percent for 4-year-olds and 70 percent for 3-year-olds);

• Grade repetition is among the lowest in OECD countries, with only 3.5 percent of 15-year-old students repeating a grade at least once, compared to the OECD average of 12.4 percent in PISA 2012.

REFORMS IN THE EDUCATION SYSTEM IN 1990-2016 COMPULSORY EDUCATION

AND UPPER-SECONDARY EDUCATION

Basic education (grades 1-9) is compulsory in Estonia. It starts with the first full school year after children have reached the age of seven and continues until students have satisfactorily completed basic education or have reached the age of 17. The system does not differentiate between primary and lower secondary education – basic school is treated as one stage. After completing the basic school satisfactorily, students can continue their education in upper secondary education schools (grades 10-12) or vocational education institutions free of charge.

DEVELOPMENT OF THE NATIONAL EDUCATION SYSTEM

The main aims of education reform in the 1990s were to "de-ideologize" education and set the foundations for the national education system. The process included writing new curricula, textbooks, and other curricular materials, as well as re-training teachers.

One of the aspects that gave the Estonian education system a good starting point in the 1990s, when independence was regained, was that Estonia had permission to deviate from Soviet Union requirements in the 1960s and 1970s (e.g., an 11 year secondary education in contrast to the official 10 year education, permission to have Estonian authors write some textbooks, use of different curricula).

In the late 1980s and early 1990s, most education institutions relating to Soviet times were closed or rearranged and new institutions were established. In this process, the Open Estonia Foundation (OEF) played the key role. In 1994, OEF supported a series of seminars entitled "Independent School" dealing with school development, management, policies, testing, and legislation. A year later, OEF launched a series of seminars for school leaders. This initiative developed into a network of "Schools of Distinction" which became the ground for multiple initiatives in curriculum development, school renewal, and improvement of school management. In 1998, OEF supported the launch of the project "Quality Management System in Estonian Schools". The aim of the project was to develop guality system modules and put them into practice.

The legal framework of the Estonian education system was laid by several laws adopted in the 1990s. The most important laws and legislative acts for the primary, basic, and secondary education were:

• The Law on Education of the Estonian Republic (1992) – general principles;

• The Law on Basic and Upper Secondary Schools (1993) – conditions for establishing, operating, and closing state and municipal primary and basic schools and gymnasia; principles for governing basic and general secondary education;

• **The National Curriculum** (1996) – basic principles of schooling, framework for all teaching organizations regardless of the language. Schools develop their individual curricula based on the national curriculum. National curriculum provides a list of compulsory subjects with a syllabus (list of subject content) and study time (number of lessons) for each subject;

• The Law on Private Schools (1998) – conditions for establishing and operating schools that are owned by private individuals or legal entities.

The new legal environment was different from the Soviet Union's. The cornerstone of the legislation was the requirement to provide education to all children living in Estonia according to their abilities, including children with special needs. While in the Soviet Union, there was an understanding that certain disabled children should not be educated, in Estonian legislation the education of children with disabilities is supported. Expenses of the teaching staff, school principals, their deputies, and school textbooks (regardless of school ownership throughout secondary education and in accordance with the number of students) are financed by the state through the budget of the Ministry of Education. All other expenses are borne by the authority responsible for the school (central government, municipality, or private entity).

In the first half of the 1990s, the focus was on the search for leadership at all levels. Teacher training changed based on Western examples (concerning structure and content).

In the mid-1990s, Estonia started to develop central quality assurance mechanisms – centrally administered assessments and examinations. The development resulted in an elaborate system of externally set and/or administered tests, including national assessments for grades 3 and 6, as well as national tests for grade 9 and exams for grade 12. The grade 12 exams IN 2011, THE NATIONAL CURRICULUM WAS SEPARATED INTO TWO FRAMEWORKS: ONE FOR LOWER SECONDARY AND ONE FOR UPPER SECONDARY SCHOOLS have school graduating and universityadmitting functions at the same time. It was a time when the philosophical foundation of education and national strategy was discussed in informal and state-wide groups. Different projects to establish intellectual foundations for reform and prepare school leaders, teachers, and others were initiated.

New strategies were carried out in the late 1990s. The legal framework of the education system was updated. In 1997, the development of "Estonian Scenarios 2010" started, which later led to "Estonian Education Scenarios 2015". Wider consensus was found with the scenario called "Learning Estonia" that was also presented in the Parliament.

During the 1990s decentralization of the Estonian school network, local municipalities gained more responsibility to plan and maintain the quality of education. Estonian headmasters have autonomy when choosing school personnel and controlling the school budget. Estonian teachers have autonomy when choosing study materials and during the evaluation process. Research indicates that decentralized education systems provide more equal opportunities for students to gain a high-quality education.

The new national curriculum, accepted by Parliament in 1996, focused on school outputs. It described competencies, or standards, to be achieved at the end of each school stage and provided guidance about how to organize a student-centered learning process in school. In 2011, the national curriculum was separated into two frameworks: one for lower secondary and one for upper secondary schools. Each framework enabled schools to develop their own curricula while taking students' interests and cultural differences into account. New amendments came into force under the Basic Schools and Upper Secondary Schools Act. Those amendments mainly aim to clarify the rights and duties of all involved parties (parents, schools, local government) and set bases for management and funding of schools, as well as for state supervision of teaching and school activities.

They also aim to enforce compulsory school attendance and reduce early school leaving. For example, they mandate a regular update of databases to help detect children with school attendance problems. Additionally, among the objectives of these amendments is improving availability of support services in schools such as career counselling and guidance, social pedagogy, psychology, and speech therapy. Starting in 2014, the provision of those services has been organized through the regional centers of Pathfinder (Rajaleidja).

In February 2014, the government adopted the Estonian Lifelong Learning Strategy 2020. This document guides the most important developments in education and is the basis for the government decisions for educational funding for 2014-2020.

The general goal of the Lifelong Learning Strategy is to provide all people in Estonia with learning opportunities throughout their lifespan. Opportunities are tailored to their needs and capabilities in order to maximize dignified self-actualization within society, work, and family life.

Five strategic goals have been established:

• Change in the approach to learning. Implementation of an approach to learning that supports each learner's individual and social development, the acquisition of learning skills, creativity, and entrepreneurship at all levels and in all types of education.

• Competent and motivated teachers and school leadership. The assessment of teachers and headmasters, including assessment of salaries' consistency to qualification requirements and work-related performance.

• Concordance of lifelong learning opportunities with the needs of labor market. Lifelong learning opportunities and career services that are diverse, flexible, and of good quality should result in an increasing number of people with professional or vocational qualifications and increasing overall participation in lifelong learning across Estonia.

• A digital focus in lifelong learning. Modern digital technology is used for effective learning and teaching. An improvement in the IT skills of people has been achieved and access to the new generation of digital infrastructure is ensured.

• Equal opportunities and increased participation in lifelong learning. Created for every individual.

EDUCATIONAL AND SOCIAL FACTORS THAT DECREASE SOCIAL AND ECONOMIC INEQUALITY

There are many methods that help decrease social and economic inequality in the educational field. Already before the restoration of independence, students were granted psychological help and speech therapy. Moreover, private consultations were offered to students who had trouble with learning.

Since 2006, every Estonian basic school student gets a free school lunch. Many local municipalities offer "morning porridge" to those who are in need. Since 2014, every uppersecondary student gets a free school lunch. Many local municipalities also offer "financial school support" to the families who need it (for textbooks and other school supplies). Free healthcare is secured for every Estonian student.

FUNDING

Schooling is free in Estonia for all students according to their needs. Between 2005 and 2012, the annual expenditure per student increased by 30 percent.

The government changed its school funding model from "per capita" to "per class" criteria in 2008, allowing more equal distribution of funds to rural schools.

ICT DEVELOPMENT - THE TIGER LEAP

The initiative began in the 1990s with the commitment to ensure that all students had access to computers. Today, it has evolved into a broader aim to ensure competitive-ness in the global information economy.

In the early 1990s, the Information Communication Technology infrastructure in education was outdated and inadequate compared to Western countries, and users had little experience. Nevertheless, the academic computer knowledge was relatively high and there was a remarkable level of interest and readiness among wider society.

Year	Average monthly gross salary of municipal school teachers	Average monthly gross salary of state school teachers	Average monthly gross wages and salaries in Estonia	Minimum salary rate of teachers
2005	555	501	516	365
2006	593	604	601	447
2007	719	682	725	528
2008	850	817	825	644
2009	810	837	784	670
2010	783	838	792	644
2011	797	861	839	644
2012	812	876	887	655
2013	930	941	949	715
2014	1025	1028	1005	800
2015	1135	1168	1065	900

Table 1: Average monthly gross salary of teachers 2005-2016 (EUR)

IN 1997, THE MINISTRY OF EDUCATION, COMPUTER COMPANIES, AND PRIVATE PERSONS ESTABLISHED THE TIGER LEAP FOUNDATION

The first school computer program was implemented in 1987–1992, when approximately 3,000 computers were sent to schools. All basic schools received one or two computer stations and all high schools had one classroom with computers made in Estonia. Unfortunately, there were several difficulties – computers were unreliable, many of them broke down and were neglected. It was also hard to find teachers because the subject did not exist in official curricula.

In 1992–1996, the state invested about EUR 189,000 annually into schools' IT equipment. About 40 Estonian schools managed to properly equip computer classrooms. Also, developing suitable software for the Estonian study programs started.

The Tiger Leap National Programs were launched in 1996 by President Lennart Meri. It was the start of modernization of the Estonian education system. The new national curriculum for basic and secondary schools was adopted in September 1996. In 1997, the Ministry of Education, computer companies, and private persons established the Tiger Leap Foundation.

Goals of the program were to provide Estonian teachers with elementary computer skills; to develop the curriculum and learning environment; to connect the Estonian education system with international information databases; to encourage the creation of original software for the Estonian language, culture, history, and environment; to develop information systems for education; and to establish regional computer skills teaching centers.

In 1996-1998, the availability of hardware throughout Estonia improved significantly (from 50 students per computer to 20 students per computer) and the use of computers and internet in school programs increased. The Tiger Leap program also improved cooperation between the state, schools, and service providers.

TEACHERS

Teachers have very high qualification standards in Estonia – they need to have a master's degree and a teaching profession. During the last decade, Estonia has strived to increase teacher salaries [See Table 1].

Although it is not comparable to richer OECD countries, the increase in salary has been one of the quickest during the last decade. Although salaries of teachers have risen, current levels are considered insufficient to make the teaching profession attractive. Additional funds have been allocated from the state budget to continue the increase.

To encourage newly qualified teachers to work in small towns and rural areas and teachers fluent in Estonian to teach in schools where Russian is the main language, they are offered an allowance of more than EUR 12,750 during the first three years of teaching with the obligation to work there for at least five years.

Higher education institutions providing teacher training have formulated common competency standards for teachers and articulated a development plan for the teacher-training system.

In 2013, new professional standards for teachers were set to develop continuous teacher training and to assess future teachers' readiness to enter the profession. Organizing the continuous training is based on the concept of continuous education of teachers and heads of school, implemented by the Ministry of Education and Research in cooperation with its partners.

EDUCATION IN RUSSIAN LANGUAGE

Almost one-third of the Estonian population is formed by the ethnic Russian community. In 1997, the Ministry of Education initiated the development plan for Russian-speaking schools as a part of the 1997-2007 Activity Plan for a unified Estonian education system. In 1998, the government approved the plan and Russianspeaking schools started their transition toward Estonian curricula.

Over two decades, the support for language studies of children with Estonian as a second language and support for studying in Estonian in general have been prioritized. Both policy formulation and parliamentary support have aimed to enforce this goal.

In 1993, a Primary and Secondary Education Act was passed that set Estonian as the official studying language, but as a result of public discussion, Russian was also allowed in middle schools. In November 2007, the government approved a step-by-step plan to fully implement Estonian as the educational language. According to the plan, by 2011, all schools should have at least 60 percent of subjects taught in Estonian. Since 2009, it is also obligatory to teach Estonian in all non-Estonian pre-schools and kindergartens to children ages 4 and above. The state has allocated money for salaries of Estonian teachers in preschools and kindergartens, supported teachers training, and issued study materials.

SIMILAR TO BASIC AND SECONDARY EDUCATION, HIGHER EDUCATION HAS ALSO UNDERGONE FUNDAMENTAL CHANGES SINCE ESTONIA REGAINED INDEPENDENCE

Although the 1993 law does not make it compulsory to teach Estonian in middle schools, the majority of schools teach some subjects in Estonian. The state has also supported local municipalities to make the Estonian study environment more effective. Since 2014, Russianspeaking schools also started to shift toward Estonian-based vocational education.

INTERNATIONAL CURRICULA

The possibilities to acquire general education in different languages contribute to the rotation of foreign and Estonian diplomats and foreign experts to come and work in Estonia.

According to the Basic Schools and Upper Secondary Schools Act, it is possible to conduct studies in Estonia with curricula formulated under the aegis of either the International Baccalaureate Organization or the Statute of the European Schools. Those curricula are designed foremost for the children of foreign officials and specialists working in Estonia.

HIGHER EDUCATION

There are different academic and nonacademic options to acquire higher education in Estonia. Non-academic higher education can be obtained via secondary education based on professional higher education programs that last three to four years. Part of the programs is always the practical training.

Academic higher education is divided into three levels: bachelor's, master's, and doctorate. In 1991-1994, the first level lasted for five years and, after that, a bachelor's degree was received. In 1995, the system changed and four-year bachelor's programs were introduced. Since 2002, the nominal time for a bachelor's degree is three to four years (depending on the duration of a master's). A secondary school diploma and a certificate of national examinations is needed for admission to the higher education institution. Other and more specific requirements depend on the institution and area of specialization.

99 I ARGE-SCALE CHANGES STARTED AI RFADY IN THE BEGINNING OF 1990s BY REMOVING SOVIET IDEOLOGY FROM PROGRAMS, **INCREASING** UNIVERSITY AUTONOMY, INTRODUCING THE CREDIT ACCUMULATION SYSTEM BASED ON STUDENT WORKLOAD, AND AN ACCREDITATION SYSTEM

AT THE BEGINNING OF THE 1990s, THE ECONOMIC SITUATION IN ESTONIA CHANGED DRASTICALLY: THE SOVIET STATE-CONTROLLED SYSTEM WAS REPLACED BY THE MARKET-BASED SYSTEM

Similar to basic and secondary education, higher education has also undergone fundamental changes since Estonia regained independence. The changes have been made in almost every field of higher education – from curricula to funding and structure.

In the 1990s, the legal framework for the higher education system was established. It contained several laws and legislative documents:

• Law on Universities (1995);

• **The Standard of Higher Education** (1996) – requirements for higher education, licenses, and accreditation;

• Law on the Organization of Research and Developmental Activity (1997);

• Law on Applied Higher Education Institutions (1998).

Other main documents shaping the higher education policy in Estonia include:

• Higher Education Strategy 2006-2015 (2006) – approved by the Parliament;

• Higher Education Internationalization Strategy for 2015 (2007);

• **OECD recommendations** - "Thematic Review of Tertiary Education" (2007);

• Estonian Life Learning Strategy 2020.

The early and mid-1990s are characterized by the demolition of the old and building up the new legal environment. It can also be seen as a period of shock and survival. The second half of the decade saw the expansion of the higher education system in combination with the development of legal frameworks and quality assurance mechanisms for different sectors. It was the period of "step by step" improvement.

The beginning of the millennium had new reforms, hallmarked by the higher education reform plan in 2001. It was a recovery period. The last decade is best characterized by the performance-based model in Estonian higher education.

BOLOGNA PROCESS IN ESTONIA

Estonia was among the countries who signed the Bologna Declaration in 1999. Large-scale changes started already in the beginning of 1990s by removing Soviet ideology from programs, increasing university autonomy, introducing the credit accumulation system based on student workload, and an accreditation system. SINCE 2009, ACCREDITATION OF A HIGHER EDUCATION INSTITUTION IS MANDATORY AND IS CONDUCTED FOR SEVEN YEARS

The Bologna process was seen as a continuation of those developments, an opportunity to increase the competitiveness internationally (comparable degree structure) and broaden the student choice (national and international mobility). In 2001, the government approved the reform plan. Major legislative changes were implemented in 2002 and 2003. Transition to the new degree system was quick due to institutional interest in the changes. Legalizing the basis for recognition of foreign qualifications started in 2005.

INSTITUTIONS PROVIDING HIGHER EDUCATION

At the beginning of the 1990s, the economic situation in Estonia changed drastically: The Soviet state-controlled system was replaced by the market-based system. It also meant that private institutions entered higher education. Most of the higher education institutions were small, with the enrollment below 1,000 students. The main focus was on teaching and research came second. The establishment of the Estonian Science Foundation in 1990 and the research audit by the Academy of Sweden in 1992 led to the rise of stronger research institutions and universities and the closure of weaker ones.

As a result of the liberal policy of the 1990s, the higher education system became too fragmented: in 2005, there were 44 higher education institutions in Estonia. By 2016, the number has decreased to 21:

- six state universities,
- one private university,
- eight state professional higher education institutions,
- six private professional higher education institutions.

The external accreditation of the study programs started in 1997 when the Higher Education Accreditation Centre was established. A positive accreditation decision on a study program was mandatory for the higher education institution to issue nationally recognized graduation documents. Accreditation committees were comprised of experienced foreign experts. The full accreditation was given for seven years, conditional accreditation for three years, and the decision of negative accreditation resulted in the closure of the study program. Institutional accreditation was voluntary during that period. A total of more than 1,400 study programs and six institutions were accredited during 1997-2009. Since 2009, accreditation of a higher education institution is mandatory and is conducted for seven years. Study programs are assessed in a specific study program group and in a specific academic field (e.g., professional higher education, bachelor studies, master's studies, doctoral studies).

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ENROLLMENT IN HIGHER EDUCATION

In the school year of 1993–1994, there were about 25,000 students in Estonian higher education. The number increased year by year and reached its peak in 2005–2006, when there were about 68,000 students. During the last decade, the number has decreased and, in the last school year (2015–2016), there were about 51,000 students enrolled. The decrease was caused by the demographic situation as Estonia has fewer young people.

2012 HIGHER EDUCATION REFORM

In 2007, an OECD analysis concluded that the Estonian higher education funding system did not match the needs of labor market. The market needed more specialists in some fields than universities could provide (e.g., teachers and engineers). The other problem was that the system distorted the free choice of students. About 50 percent of students paid tuition fees. The number of free study positions in some fields drew the talented students to study in fields they did not like because it enabled them to study for free. The system was inefficient - the completion rate in some fields was below 30 percent. The responsibilities of the state and universities were unclear

In 2008, the University Act was modified. The funding system was changed to be more goal-oriented (activity support). In March 2011, at national elections, one of the main topics was the higher education system. After the elections, the first drafts were worked out and presented in the Parliament. The new University Act was adopted in 2012. Quality became the overarching goal in the higher education system. The aim of that reform was also to increase the fairness of the system, the efficiency of studies, and to reduce the gap between the various fields of higher education. From 2013, all full-time students do not have to pay tuition fees. The number of study positions is determined by a university's teaching capacity and performance agreement. New types of activity contracts were introduced and the additional funding depended on the new contract. Performance contracts made possible open discussions about quality issues, cooperation, and focus areas of universities, and set the goal for improvement.

In 2013–2014, need-based study allowances were introduced. The aim of new measures was to support higher education studies of students with economic difficulties. In 2014, new types of scholarships were added to motivate students to work in STEM (science, technology, engineering, and math) fields.

FUNDING

In 1995-2012, higher education institutions were funded from the state budget for the provision of graduates (i.e., state-commissioned study positions, about 80 percent of the funding), in capital investment, and other expenditures (such as library costs). The cost of study positions varied across fields (different funding coefficients). In 2010–2011, 51 percent of study positions were state-commissioned (free).

In 2013, higher education reform in Estonia came into force and the higher education funding principles were changed. An inputoriented funding formula was replaced by a performance agreement-based funding model.

Seventy to 75 percent of the activity support for higher education institutions is based on activities connected to the extent, quality, and efficiency of the provision of instruction according to the following indicators: • **Indicators for extent**: the number of students admitted; the number of students studying in educational institutions in foreign countries; the number of foreign students studying in the university; the number of external teaching staff employed as regular staff; and the number of full-time students as the extent of provision of instruction;

• Indicators for quality: goals reached that were established in the previous performance agreements; results of matriculated students; continuation of studies at the next academic level; and the employment of graduates as the quality of provision of instruction;

• **Indicators for efficiency**: the number of graduates from the university and the number of graduates in broad groups of studies of national importance as the efficiency of provision of instruction.

Twenty-five to 30 percent of the activity support is for the provision of instruction of national importance (e.g., professorships of national importance, targeted funding for certain colleges, or university libraries).

From January 1, 2017, Estonia plans to correct the funding model because the existing model can induce sudden unreasonable fluctuations in funding. Higher education institution funds in the budget will be distributed for activity support for higher education institutions and targeted funding.

Activity support will consist of baseline funding (at least 80 percent) based on the average activity support received during the last three years;

• performance funding based on performance indicators (up to 17 percent);

• performance funding based on performance agreement (up to 3 percent).

Objectives are negotiated and agreed to (also for targeted funding) in three-year performance agreements.

FUTURE CHALLENGES

Even with the relative success of the Estonian education system, there remains a number of challenges that will need to be addressed:

1. Aging staff causes the need to make teaching a more attractive profession for youth to avoid a shortage of qualified teachers.

There are 14,329 teachers in Estonia who are an average of 47.4 years old. Only 9 percent of teachers are younger than 30; the goal for 2020 is 12.5 percent. The proportion of female teachers is 86 percent; the goal for 2020 is 75 percent.

Possible solutions:

• Higher salary. The goal for 2019 is for teacher salaries to be 120 percent of the Estonian average.

• More rights for teachers.

2. Further incorporation of IT into the learning process.

The importance of information technology has considerably increased in daily life. Improved availability of internet via various digital devices and data communications packages has provided access to a huge amount of information and numerous possibilities. Better skills to use technology and innovations would support the increase in productivity in economy.

Possible solutions:

• Better integration of IT into curricula.

- Encouraging teachers to use IT in teaching.
- Implementing e-assessment methodology and tools.
- Supporting digital learning resources in schools.
- Producing interoperable software solutions, commercial and non-commercial study materials.
- Increasing the use of personal digital devices for studying.

3. Estonian education system needs to adapt to decreasing number of schoolaged children.

Due to demographic changes, the number of students has decreased about 40 percent in the last 15 years. Estonia is currently reviewing its school system to maintain basic schools that are close to students' homes while ensuring the quality and diversity of upper-secondary education study choices in county centers.

Possible solutions:

School Network Program 2015–2020 (EUR 241 million investments):

- The responsibility for basic education resides with local governments and responsibility for secondary education with the state.
- Establishment of state-run secondary schools in county centers (at least 15 schools).
- Optimizing and updating the basic school network.
- Reorganizing the school network for students with special educational needs (reducing the number of schools by one-third).

• Ensuring adequate conditions in basic schools to integrate students with less-se-rious special needs.

CONCLUSIONS

There is a long history of schooling in Estonia and education as such is highly valued. Social and education systems help students from different socio-economic backgrounds get an equally good education. Teachers have very high gualification standards and the school system is decentralized, whereas tasks are clearly separated between local and state governments. As an IT country, Estonia is working on better integration of IT into its curricula. The future challenges are related to changes in demography, in school networks, and in making teaching a more attractive profession. Those, however, can be tackled by applying the abovementioned solutions.



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