

A photograph of a classroom. In the foreground, a young woman with long blonde hair is sitting at a desk, looking towards the camera with her hand raised. She is wearing a black and white patterned shirt. To her left, another student is looking down at a book. In the background, a teacher in a red sweater is standing near a whiteboard. Other students are seated at desks, some looking at books or tablets. The room has white walls and a green chalkboard.

# Estonia. Smart solutions for education innovation

education  
estonia

# Estonia



- + population: 1.3 million
- + 45,339 km<sup>2</sup>
- + EU, NATO member (since 2004)
- + 99% of public services online

# Estonian students rank #1 in Europe (PISA 2018)

4th

in the world in **science**

5th

in the world in **reading**

8th

in the world in **math**



3 times more  
top performers  
(15.5% vs OECD 5%)



The lowest number  
of low performers  
(8.8% vs OECD 22%)

# How did we get there?

## + EDUCATIONAL MINDSET

It has always been both a guarantee of individual success and one of the main drivers of the country's development.

## + DIGITAL SOCIETY

In a country where 99% of state services are online and people trust e-society, we use the possibilities of technology in education as well.

## + CAN-DO ATTITUDE

Over the last 30 years, Estonia has implemented a lot of large-scale educational reforms, doing it „the Estonian way“ - quickly and boldly.

## + INNOVATIVE START-UP CULTURE

State has supported entrepreneurship education for decades. Past years have seen rapid growth in the EdTech sector.

# Education has been highly valued through generations

Before 1918

Under Danish, Swedish, German, Russian rule

13th c. First monastic schools

17th c. Schools for peasant children

1860-70s Compulsory school

1881 Literacy rate 94%

1918-1940  
Estonian Republic

Start of the Estonian national education system. From 1920 compulsory and free education for 6 grades.

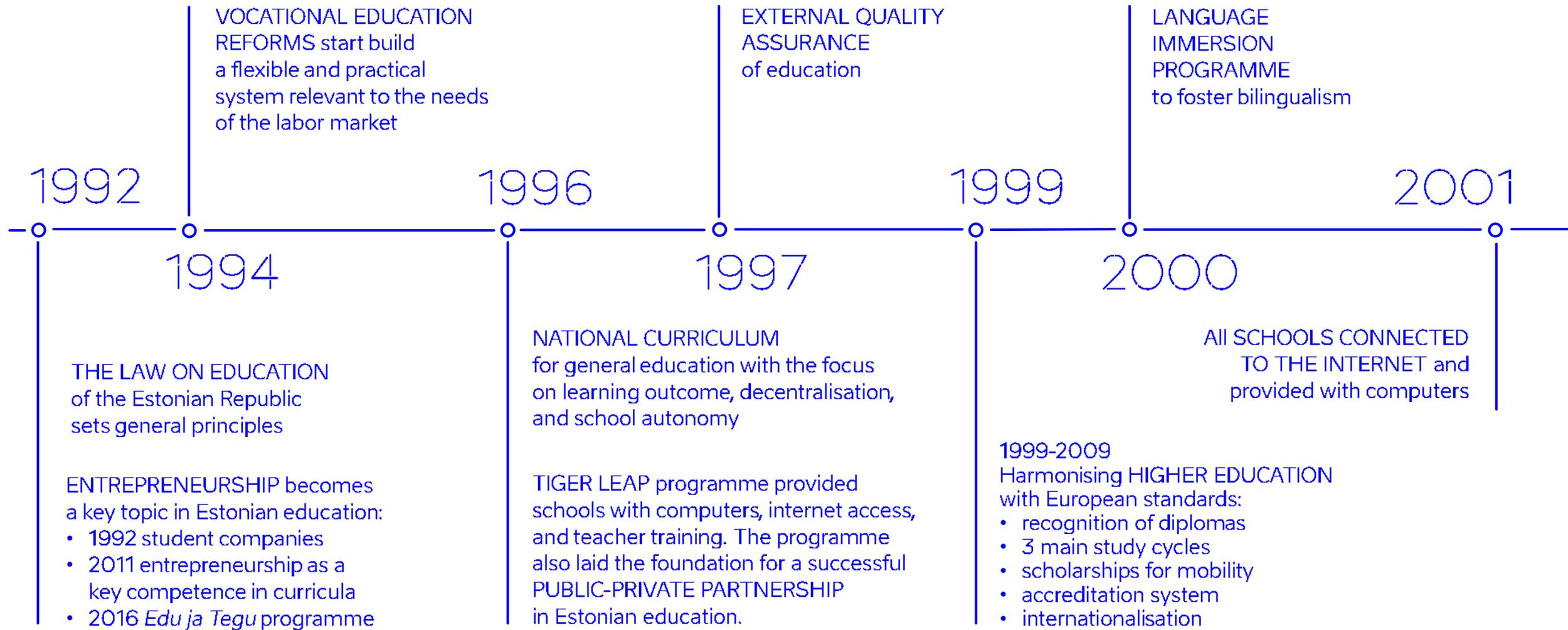
1944-1991  
Soviet Occupation

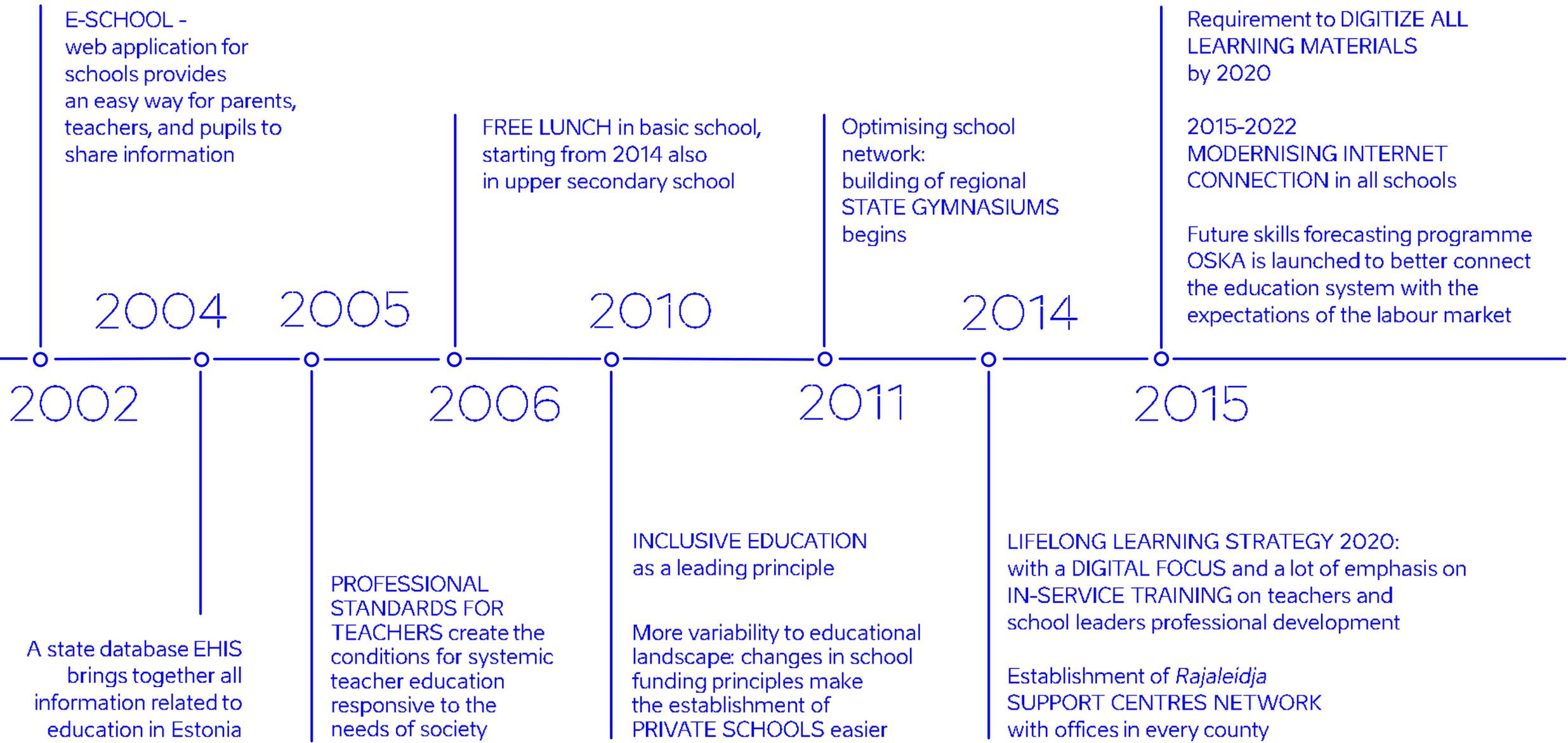
Estonia managed to maintain high-quality teaching and learning in Estonian.

1991  
Republic of Estonia

The modernisation of Estonian education begins.

# Restart of the education system





2002

A state database EHIS brings together all information related to education in Estonia

2004

E-SCHOOL - web application for schools provides an easy way for parents, teachers, and pupils to share information

2005

PROFESSIONAL STANDARDS FOR TEACHERS create the conditions for systemic teacher education responsive to the needs of society

2006

FREE LUNCH in basic school, starting from 2014 also in upper secondary school

2010

INCLUSIVE EDUCATION as a leading principle  
More variability to educational landscape: changes in school funding principles make the establishment of PRIVATE SCHOOLS easier

2011

Optimising school network: building of regional STATE GYMNASIUMS begins

2014

LIFELONG LEARNING STRATEGY 2020: with a DIGITAL FOCUS and a lot of emphasis on IN-SERVICE TRAINING on teachers and school leaders professional development  
Establishment of *Rajaleidja* SUPPORT CENTRES NETWORK with offices in every county

2015

Requirement to DIGITIZE ALL LEARNING MATERIALS by 2020

2015-2022 MODERNISING INTERNET CONNECTION in all schools

Future skills forecasting programme OSKA is launched to better connect the education system with the expectations of the labour market

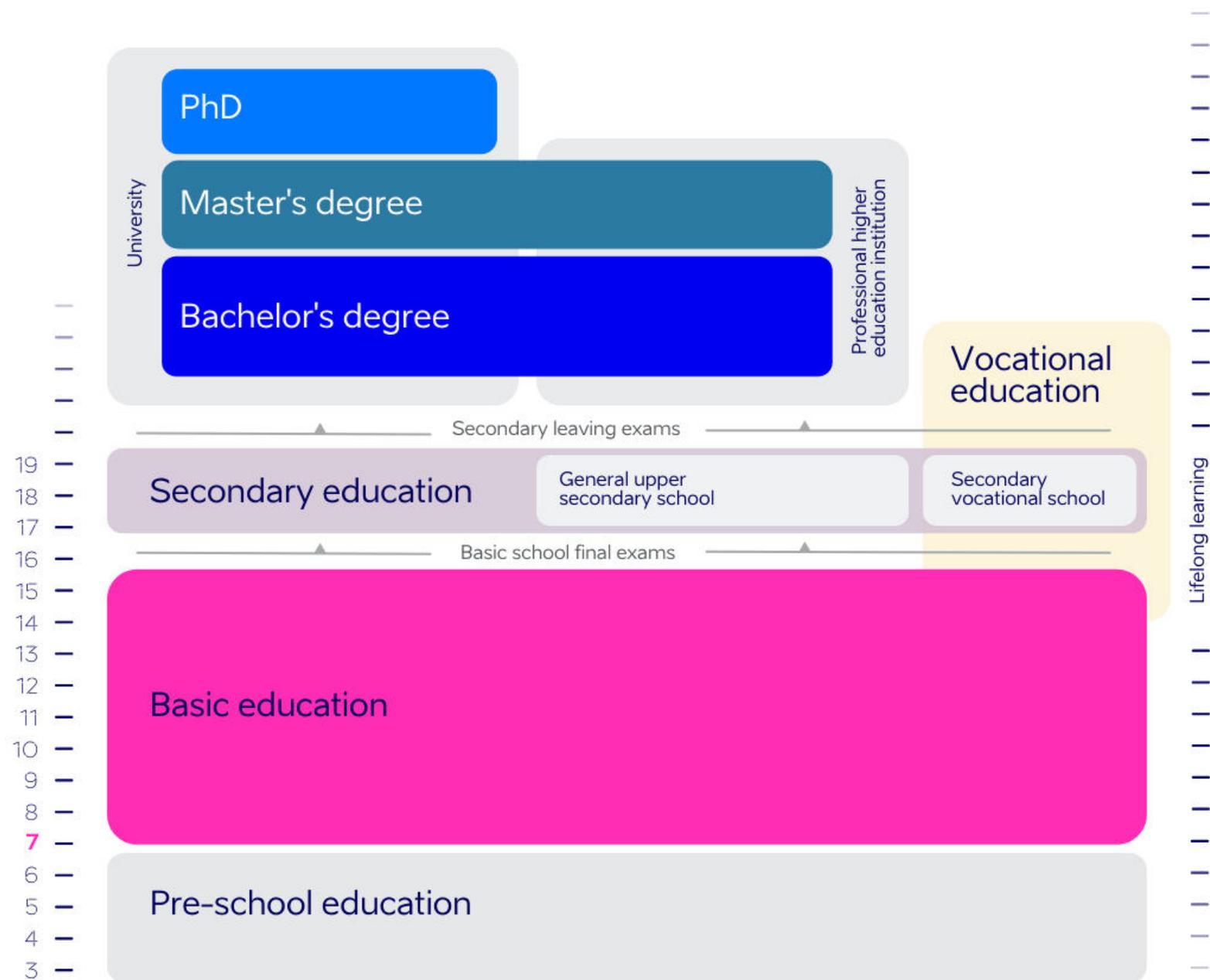
A photograph of two young children sitting at a table, eating. The child in the foreground is a young boy with light brown hair, wearing a blue sweater, holding a glass of milk to his mouth. The child in the background is a young girl with light brown hair, wearing a red and white striped shirt, holding a fork. The background is blurred, showing other people and a bright, indoor setting.

Everyone has the right  
for a high quality  
education

- + In Estonia, student's socio-economic background has a low impact on performance (6.2 % of variation compared to 12% in OECD)

# Estonian education today

General education:  
+ 156,786 students  
+ 16,569 teachers  
+ 517 schools

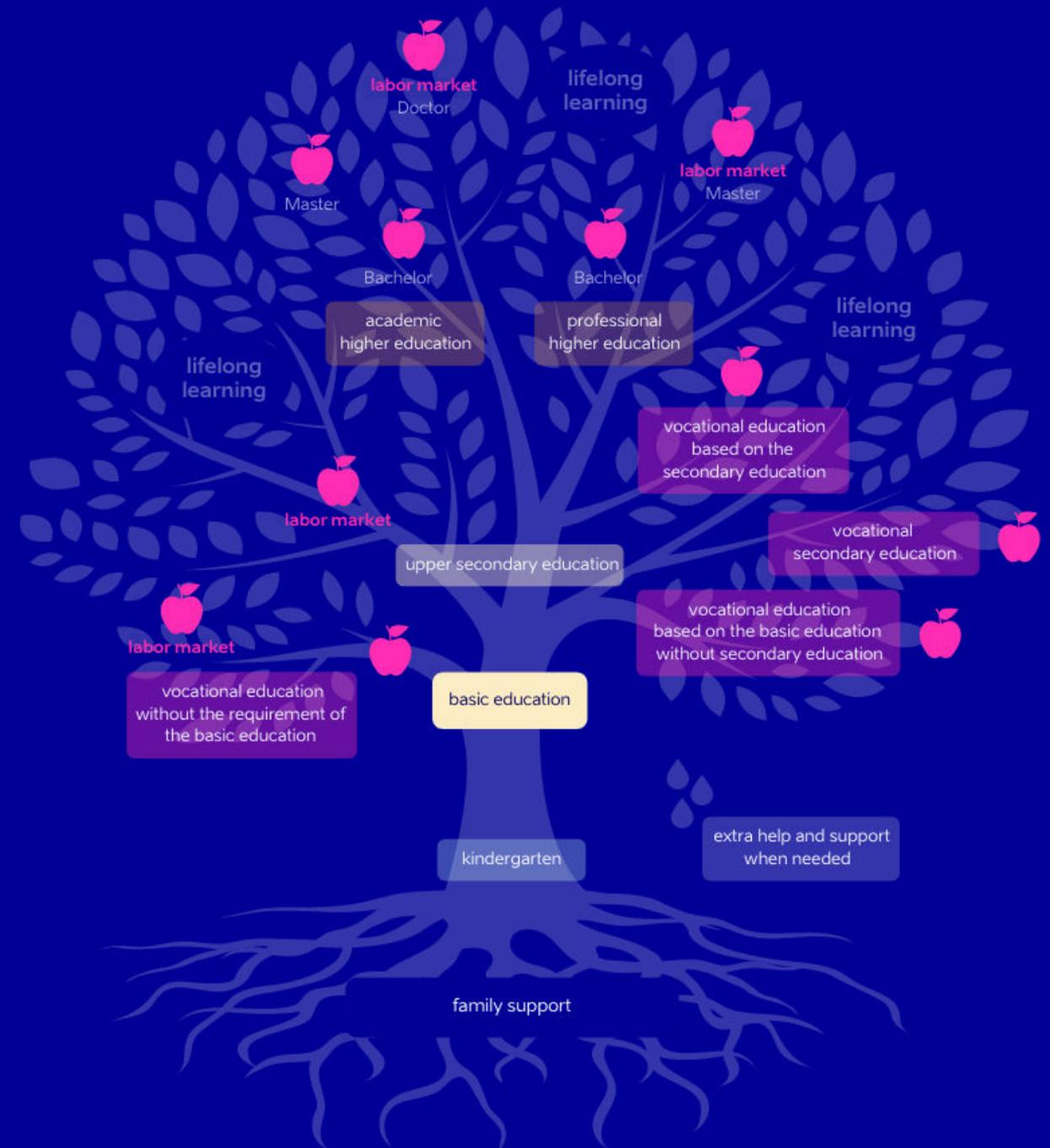


# Preschool: preparing for school



- + 94% of 4-6-year children attend kindergarten, though this is not compulsory in Estonia
- + Curriculum-based learning outcomes are achieved by learning-through-play method

# The strength of the tree depends on its roots



No matter which path you have started on, you have the possibility to move on from one branch to another.

# Characteristics of Estonian education

- + Estonia has successfully implemented an **INCLUSIVE EDUCATION SYSTEM**. Students with different abilities study together.
- + **EDUCATION IS FREE-OF-CHARGE** from basic to the higher education. School meals, textbooks, and transit are free for all students.
- + **TEACHERS ARE HIGHLY EDUCATED**. A teaching qualification requires the completion of a Master's degree.
- + Schools, principals and teachers have **A LOT OF AUTONOMY**.
- + **EXTERNAL EVALUATION** of learning outcomes gives valuable feedback.
- + All students are entitled for free **SPECIAL SUPPORT** by psychologists, speech therapists at school or at the counselling centres found in every county.
- + **HOBBY EDUCATION** offers wide opportunities for self-development in music, sports, art, technology, etc.
- + **STUDY AND HOLIDAYS ARE IN BALANCE**: School day and school year are shorter than in many other countries.

# Technology opens up new possibilities

- + The Tiger Leap programme in the 1990s provided schools with INTERNET CONNECTIONS, COMPUTERS, and IT TRAININGS.
- + Many schools and kindergartens have EDUCATIONAL TECHNOLOGISTS - technology integration specialists to support teachers.
- + DIGITAL LEARNING MATERIALS are available for all subjects and across all educational levels.
- + All schools in Estonia use E-SOLUTIONS.
- + For the evidence-based decisions, the EDUCATIONAL DATA is publicly accessible on the internet.
- + DIGITAL COMPETENCE is set in curriculum as a general competence throughout all the subjects.
- + Educational programmes create INTEREST IN TECHNOLOGY from kindergarten to university.

# Preparing for the information society

95%

of schools use e-diaries

1st

in digital learning (CEPS 2019)

99%

of Estonian kindergartens take part in technology education programme ProgeTiger

9%

of students study ICT in Estonia – twice as many as EU average (Eurostat)

40%

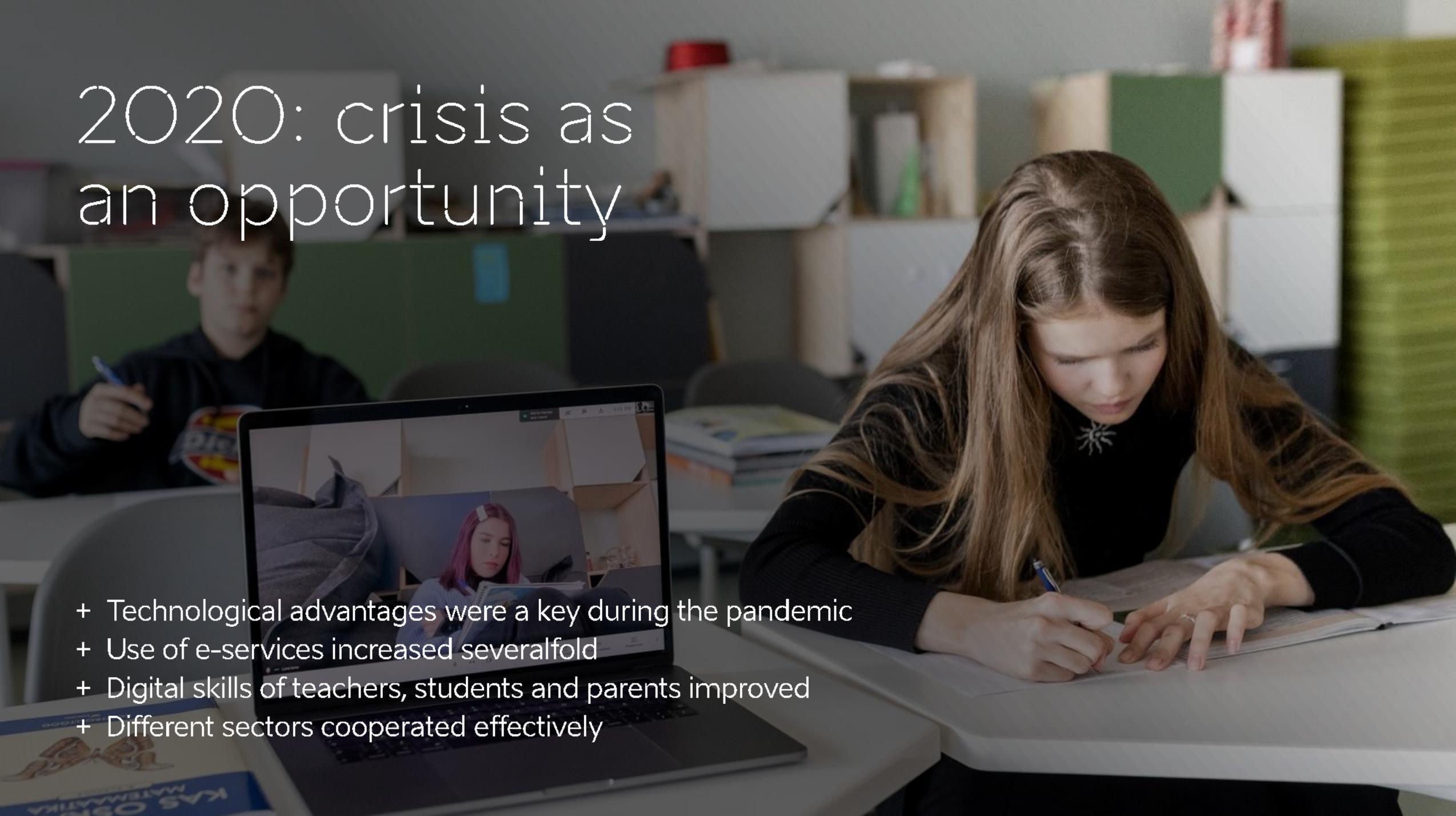
of ICT university students are female – this is highest share in Europe (Informatics Europe)

# Digital solutions are in everyday use

- + E-diaries for schools and kindergartens: Eliis, eKool, Studium
- + Digital learning materials and platforms: e-Schoolbag, OPIQ
- + Student admission systems: DreamApply, SAIS
- + Examination Infosystem EIS for digital tests
- + Estonian Education Infosystem EHIS
- + HarID user administration system

# 2020: crisis as an opportunity

- + Technological advantages were a key during the pandemic
- + Use of e-services increased severalfold
- + Digital skills of teachers, students and parents improved
- + Different sectors cooperated effectively



Youth work and  
hobby education  
offer more  
possibilities



+ Almost half (48%) of the 7-18 year olds  
participate in hobby education

# Vocational education: ensuring essential skills

+ VOCATIONAL EDUCATION is free-of-charge for everybody and has flexible forms of studies.

+ The state has special project (OSKA) to ANALYSE THE LABOUR MARKET to find out what skills are needed in the future.

+ Close COOPERATION WITH THE PRIVATE SECTOR provides students real workplace experience during their studies.

+ Moving from vocational education to higher education and vice versa is becoming increasingly popular.

# Internationally acknowledged higher education

- + Estonian universities rank high in prestigious ranking systems such as THE and QS
- + Innovative study programmes: e-governance, cybersecurity etc
- + Student projects from self-driving car to space satellite
- + Over 150 degree programmes fully taught in English, in 11 internationally accredited universities

# Lifelong learning has become a lifestyle in Estonia

- + Estonians within the 25-64 age group actively participate in learning at almost double the rate of the EU average (17.1% vs 9.2% in 2020).



# Aitäh!

education  
estonia



[educationestonia.org](http://educationestonia.org)



Photos: Rénée Altmov, Aron Urb, Sver Zacek, Küllike Heide, Laur Kadajane, Aivo Kallas, Tallinn University, Ajujaht