Estonia.
Smart solutions for education innovation
Estonia

+ population: 1.3 million
+ 45,339 km2
+ 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

1992
- VOCATIONAL EDUCATION REFORMS start building a flexible and practical system relevant to the needs of the labor market

1994
- THE LAW ON EDUCATION of the Estonian Republic sets general principles
- ENTREPRENEURSHIP becomes a key topic in Estonian education:
  - 1992 student companies
  - 2011 entrepreneurship as a key competence in curricula
  - 2016 Edu ja Tegu programme

1996
- NATIONAL CURRICULUM for general education with the focus on learning outcome, decentralisation, and school autonomy

1997
- TIGER LEAP programme provided schools with computers, internet access, and teacher training. The programme also laid the foundation for a successful PUBLIC-PRIVATE PARTNERSHIP in Estonian education.

1999
- EXTERNAL QUALITY ASSURANCE of education
- LANGUAGE IMMERSION PROGRAMME to foster bilingualism

2000
- All SCHOOLS CONNECTED TO THE INTERNET and provided with computers

1999-2009
- Harmonising HIGHER EDUCATION with European standards:
  - recognition of diplomas
  - 3 main study cycles
  - scholarships for mobility
  - accreditation system
  - internationalisation
E-SCHOOL - web application for schools provides an easy way for parents, teachers, and pupils to share information.

2004
FREE LUNCH in basic school, starting from 2014 also in upper secondary school

2005
Optimising school network: building of regional STATE GYMNASIUMS begins

2006
INCLUSIVE EDUCATION as a leading principle

2010
More variability to educational landscape: changes in school funding principles make the establishment of PRIVATE SCHOOLS easier

2011
LIFELONG LEARNING STRATEGY 2020: with a DIGITAL FOCUS and a lot of emphasis on IN-SERVICE TRAINING on teachers and school leaders professional development

2014
Requirement to DIGITIZE ALL LEARNING MATERIALS by 2020

2015
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 state database EHIS brings together all information related to education in Estonia

Establishment of Rajaleidja SUPPORT CENTRES NETWORK with offices in every county
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
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.
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
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.

+ For the evidence-based decisions, the EDUCATIONAL DATA is publicly accessible on the internet.

+ DIGITAL LEARNING MATERIALS are available for all subjects and across all educational levels.

+ All schools in Estonia use E-SOLUTIONS.

+ Many schools and kindergartens have EDUCATIONAL TECHNOLOGISTS - technology integration specialists to support teachers.

+ DIGITAL COMPETENCE is set in curriculum as a general competence.

+ 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, Stuudium
- 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).
Estonian people believe in education. We truly think that the best thing we can give to our children is not land, house or a bank account, but good education.

T. H. Ilves, the former president of Estonia