



# The shape of education to come?

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# გამარჯობა!

## I am Heli Mattisen

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# Estonia in numbers

- Population 1,3 million
- 30 people per km<sup>2</sup>
- 2 out of 3 people live in towns
- Unemployment rate 5,1%
- Average monthly salary 1354 EUR
- Literacy rate 98,5%
- More start-up companies per capita than any other country in Europe
- Skype, Bolt, Transferwise
- Basic education the best in Europe - PISA 2019

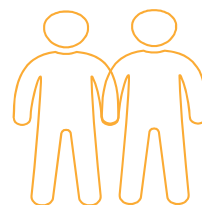


# PISA 2018 Estonia



## Position Europe/OECD countries:

- Science 1/1
- Math 1/3
- Reading 1/1



## Equity:

- Impact of socio-economical and cultural background 8%
- Resilient students 48%
- Low performers 12%



## Top performers:

- Science 13,5%
- Reading 11,1%
- Math 14,2%

# 4 key factors



## School autonomy

right to make decisions about staff, budget and curriculum



## Digi-friendly society

e-curiosity promoted from kindergarten



## Teachers

well educated and committed professionals



## Equity

socio-economic background does not matter

# School autonomy

## Estonian schools can:

1. Recruit and hire teachers who fit in their school culture
2. Plan and use their finances, establish teachers' salary and motivational systems
3. Promote teachers' professional development/ in-service training (schools can use 2% from salary budget for those purposes)
4. Develop their own curricula, based on the framework of the national curricula, taking into account local needs, community interests, resources
5. Compile and adopt a school's development plan with mission, values and goals agreed among all staff members and parents
6. Carry out integration of subjects and define learning outcomes at each class level

# Equity

1. Almost all kids are participating in pre-school education, participation rate about 95% (highest rate among the OECD countries)
2. Low socio-economic background and risk group families are exempted from pre-school education fees
3. To ensure equal access to education and equity in everyday school-life, free textbooks, healthcare services, transportation to school and free lunch during the schoolday are provided to all school children
4. Free support systems to overcome study challenges and for considering SEN – speech therapist, services of psychologists, social workers etc are provided

# Digi-friendly society

1. Estonian pupils are the most active users of e-school and school web site
2. Socio-economic background has no influence on Estonian pupils' access to computers and internet at home (SITES 2009)
3. Estonian schools are the most active in online collaborative projects (Globe, eTwinning)
4. Widespread use of online gradebook - hygiene level technology use (PISA 2012)
5. Active online communities of teachers
6. Flexible policies on BYOD



Education  
for PISA or  
education  
for the future?



# Future of labor market

1. Impossible to predict and rapidly changing
2. Half of today's jobs will not exist by 2025
3. 65% of enrollees in primary schools will get jobs that do not currently exist
4. 75% of jobs will be STEM (Science, Technology, Engineering, Mathematics) related.

# The biggest changes take place in the expected skills, not in the professions

1. In all professions, the importance of ICT skills, that is, the ability to deploy and develop technology, is increasing
2. Good professional skills in combination with advanced generic skills, e.g., language, analysing, problem solving and teamwork skills, is highly valued
3. Personality-related attitudes like openness to innovation, learning ability as well as flexibility are also important

# Top 10 skills

## in 2020

1. Complex Problem Solving
2. Critical Thinking
3. Creativity
4. People Management
5. Coordinating with Others
6. Emotional Intelligence
7. Judgment and Decision Making
8. Service Orientation
9. Negotiation
10. Cognitive Flexibility

## in 2015

1. Complex Problem Solving
2. Coordinating with Others
3. People Management
4. Critical Thinking
5. Negotiation
6. Quality Control
7. Service Orientation
8. Judgment and Decision Making
9. Active Listening
10. Creativity



Source: Future of Jobs Report, World Economic Forum

The Future of Jobs. Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution. World Economic Forum, 2016



Education  
for the future –  
are we ready?



# The three directions of educational change



1

ikoon

Merlin Linde, 06/02/2018

# Constructivist approach

Learning is individual, active and activity-based takes place in a context.



2

# Collaborative learning

Learning to work together towards a  
shared goal.

# Autonomy

Moving towards the increased freedom of action of the school, teachers and learners.

# Learning in the context of educational innovation

1

## LEARNING

Are we accounting for how the brain works and how learning happens?

2

## MINDSET

What kind of messages are we sending about improvement?

3

## MOTIVATION

Are students' basic psychological needs satisfied in this environment?

# Waiting for the wind



# Catching the wind





Good winds for  
Georgian Education!