

Kastryčnicki Ekanamičny Forum

Ураджай ідэяў дзеля ўстойлівага развіцця

KEF-2017: Foundations of the future

The role of education in a knowledge-based
society – Estonian case

Birgit Lao, CEO and Member of the Board of the Foundation Innove, Estonia

The project is funded
by the European Union



Даследчы
цэнтр ІПМ





The role of education in a knowledge based society – Estonian case

Birgit Lao

CEO of Foundation INNOVE

About Estonia

- **Area:** 45 227 km²
- **Population:** 1.3 million
- **Capital:** Tallinn
- **Official language:** Estonian
- **Ethnic groups:** 72% Estonian, 22% Russian, 6% other
- **Unemployment rate** 6,8% (2016)
- **GDP** per capita 17 900 USD (2016)
- **Average monthly salary** 1311 euros (June 2017)



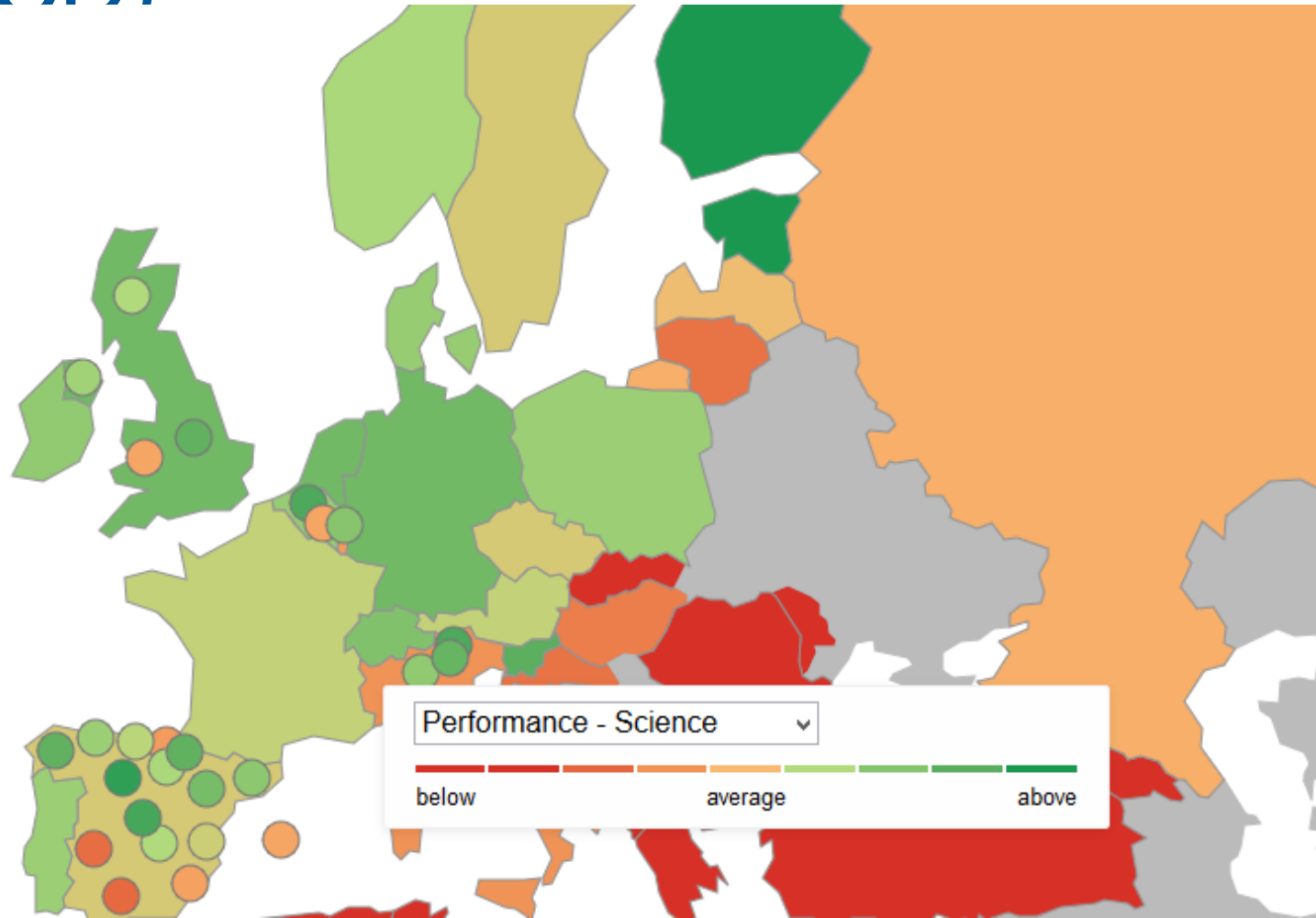
What brought us here?

“ 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.”

Toomas Hendrik Ilves,
former President of Estonia



How are we doing in PISA (OECD)?



Mean Scores from PISA 2015

| Score SCIENCE | | |
|----------------------|-----|------------------|
| 1 | 556 | Singapore |
| 2 | 538 | Japan |
| 3 | 534 | Estonia |
| 4 | 532 | Taipei (China) |
| 5 | 531 | Finland |
| 6 | 529 | Macau (China) |
| 7 | 528 | Canada |
| 8 | 525 | Vietnam |
| 9 | 523 | Hongkong (China) |

| Score READING | | |
|----------------------|-----|------------------|
| 1 | 535 | Singapore |
| 2 | 527 | Hongkong (China) |
| 3 | 527 | Canada |
| 4 | 526 | Finland |
| 5 | 521 | Ireland |
| 6 | 519 | Estonia |
| 7 | 517 | Korea |
| 8 | 516 | Japan |
| 9 | 513 | Norway |

| Score MATHEMATICS | | |
|--------------------------|-----|------------------|
| 1 | 564 | Singapore |
| 2 | 548 | Hongkong (China) |
| 3 | 544 | Macau (China) |
| 4 | 542 | Taipei (China) |
| 5 | 532 | Japan |
| 6 | 531 | B-S-J-G (China) |
| 7 | 524 | Korea |
| 8 | 521 | Switzerland |
| 9 | 520 | Estonia |

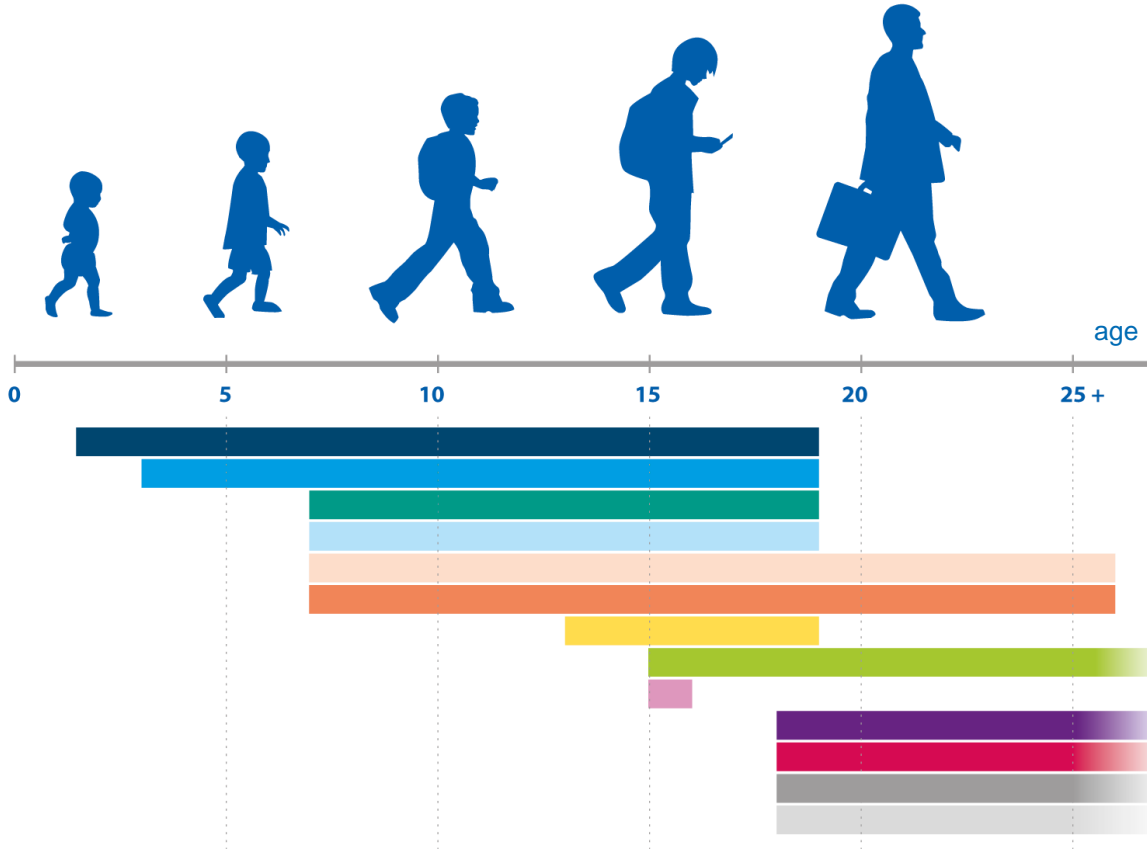


Education, Estonia, E-

- We are as rich, as qualified are our people.
- Country with low immigration – more productivity!
- Thin public administration layer.
- Efficiency enables innovation.
- E-services support regional development.
 - e-government (paperless meetings); e-elections; e-taxes; digital signature; e-police; e-healthcare; e-school, e-tests; e-residence.



What does Innove do in Education?



- Support for children with SEN, counselling services for special educational needs
- Content and Language Integrated Learning
- Implementation of national curricula
- Standard determining tests, basic school final examinations, state examinations, incl. internationally recognized language examinations
- E-assessment
- Career guidance
- Vocational education image and skills competitions
- Internship system in vocational and higher education, work-based learning
- International survey (PISA)
- Teacher and headmaster in-service training
- International survey (TALIS)
- Estonian Citizenship examinations, Estonian language examinations
- Mediates EU funds to the area of Education and Labor market



I Tighten the belt of public administration

- 2009/10 massive reshape of public administration = thin country.
- Cut of salaries 10-17%.
- Boom of e-services.
- Prioritising salaries of teachers, social workers, police, defence.
- Zero bureaucracy initiative.
- Audit of public services – merging of state agencies.
- One less level of governance – no county level administration

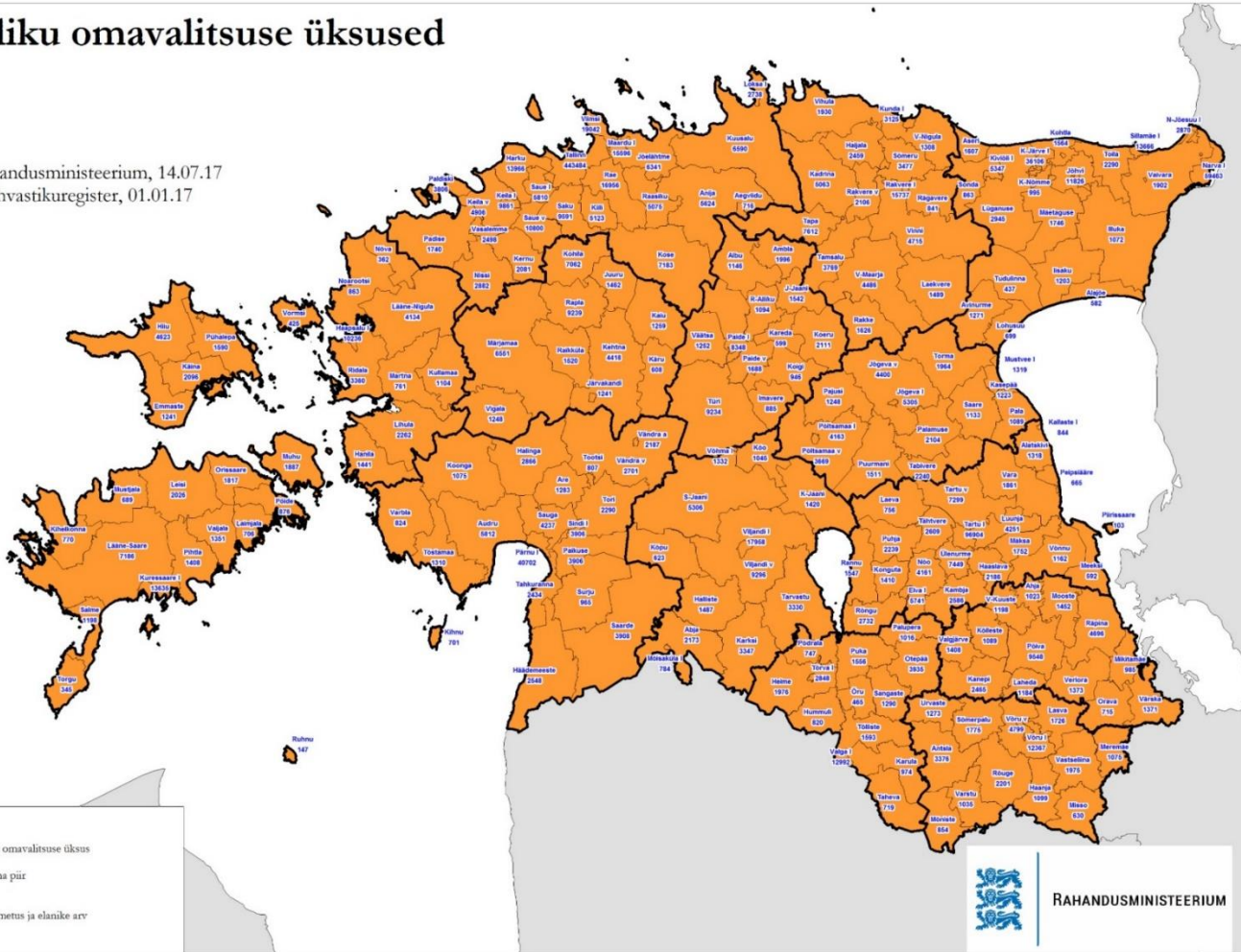
So we could afford it!



Local governance before

Kohaliku omavalitsuse üksused 2016

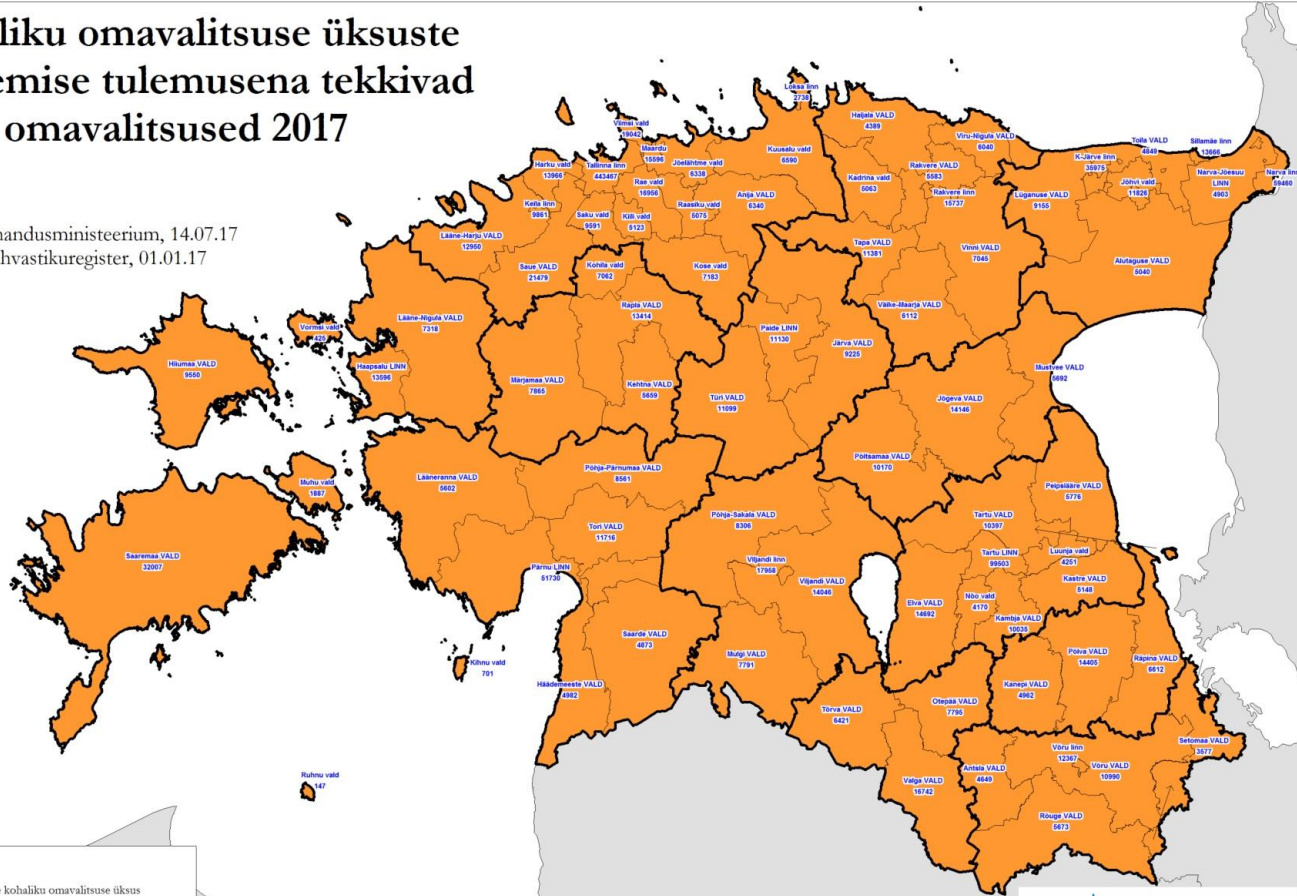
Allikas: Rahandusministeerium, 14.07.17
Rahvastikuregister, 01.01.17





Local governance after

Kohaliku omavalitsuse üksuste ühinemise tulemusena tekkivad uued omavalitsused 2017

Allikas: Rahandusministeerium, 14.07.17
Rahvastikuregister, 01.01.17



 tulevane kohaliku omavalitsuse üksus
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 Rühnu 147 KOV nimetus ja elanike arv

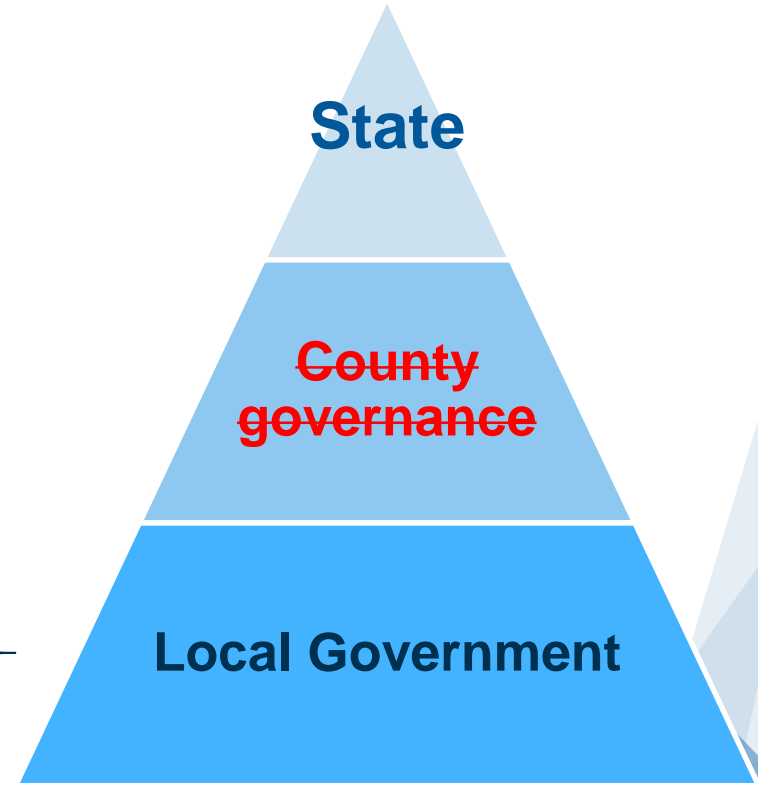


RAHANDUSMINISTEERIUM

New role for local governments

Now: regional public transport,
regional development, regional
health promotion, security
councils, cultural cooperation,
etc.

**New: orphanages, state owned
high schools, vocational
schools, regional local roads,
subsidies to disabled persons,
primary schools for students
who had special needs,
private school subsidies,
coach salaries.**



II Strategies – Learning Estonia

- From 1997, initiated by the president.
- The aim of the proposed educational reform is **to realize the vision of education as the main strategic resource of Estonia, to organize the Estonian education system on the basis of changed socio-economic conditions**, taking into account global trends and the challenge of 21st century for education as a whole.
- For the implementation (1997), GDP growth is projected to increase by 2% in the last 9 years, with a growth of 0.3% in the first two years and a further 0.2% in the year. Goal achieved on 2017!



National agreement: the education strategy for improving performance and equity (2014)



*Estonian Lifelong
Learning Strategy
2020*



Vision and strategic goals for 2020

Vision for 2020: Learning is a lifestyle. Development opportunities are noticed and smart solutions are pursued.

WE TAKE RESPONSIBILITY

People understand that learning and self-development are their own choice and responsibility.

WE CARE FOR DEMAND

Studies are based on the learner's interests and capabilities, they support development and meet labour market needs.

WE PROVIDE OPPORTUNITIES

The lifelong learning system as a whole offers study opportunities that are of good quality, modern, flexible and cater to the special needs of the learner.



5 aims of Lifelong Learning Strategy 2020

1. Change in the approach to learning.
2. Competent and motivated teachers and school leadership.
3. Concordance of lifelong learning opportunities with the needs of labor market.
4. A digital focus in lifelong learning.
5. Equal opportunities and increased participation in lifelong learning.



III Role of education - strenghts

- Educated parents +
- Estonian as the language of education +
- Liberal and comprehensive approach to education +
- **Equality**: comprehensive school; free transport; free lunches and textbooks; free medical care; free hobby activities at school +
- **Equity**: needs-based financing; free study support; individual curriculum plan; free long-day groups; state-funded places in boarding schools; counselling centres +
= **Students from low socio economic background achieve high results.**



Pre-school education

- A pre-school childcare institution - children aged 0 to 7.
- Attended by about 96% of children from the age of 4 to school age.
- Pre-schools in Estonia work on the basis of a **national curriculum**, which provides guidelines for supporting the development of children.
- Costs:
 - 1% from GDP (2014).
 - 86% financed by the LG, 1% from state budget and 13% by the fees paid by parents.



Basic education (grades 1 – 9)

- The compulsory education is from age 7 till 17 or until the acquisition of the basic education.
- Basic schools are **comprehensive schools**, as a rule – the closest regional school is chosen.
- The function of a basic school is to **create an age-appropriate, safe, positive and developing learning environment** for students which fosters their interest in learning and their **learning skills, self-reflection and critical thinking**.
- Basic education is provided also in Russian.



General upper secondary education

- Students have mandatory and voluntary courses. Studies last for 3 years.
- The function of an upper secondary school is to create conditions in which students can acquire the **knowledge, skills and values** that allow them to continue their education without obstacles in institutions of higher education or **acquire vocational education on the basis of upper secondary education.**
- Choice of gymnasium is not determined by place of living.
- New initiative – **state gymnasiums.**
- Costs:
 - Total 2,1% from GDP (2015)
 - 85% financed by local municipality, 9% private, 6% state (2015/16).



National Curriculum

- Separate for basic and secondary school.
- The transversal key competences are referred to as **general competences** which are considered to be essential for a pupil to become a well-rounded human being and a good citizen.
- 8 general competencies: **value and culture; social and civic; self-management; learning to learn; communication; math, technology and science; digital competence; entrepreneurship.**
- 4 school stages (instead of classes).



General competencies in curriculums

**Digital competence; Learning to learn;
Entrepreneurship competence**

Mathematics
curriculum

English
curriculum

History
curriculum



Improving teachers professional capacity

- Induction year for newly qualified teachers (2004).
- New professional standards for teachers (2013).
- Teachers' salaries have increased 31% between 2005-2013.
- The initial training of teachers is carried out at Master's level.
- Schools are autonomous:
 - Teachers are free to use teaching methods and textbooks of their own choice.
 - Head master hires, fires, supports teachers according to the needs of the school.



From ranking to additional value

- In addition to national exam results we calculate the **additional value of upper secondary school** adds over 3 years.
- Why? Stresses the role and the importance of the school.
- This information is public!
- + **national wellbeing analysis of schools** - „soft values“ like student wellbeing (student- teacher-parent), competencies and values.
- This information is for school-parent only!



Challenges...

- Attractiveness of teacher-position and yet significant increase of teachers salaries.
- Rearrangement of the upper secondary school network and establishing state gymnasiums.
- Support to digitalization of education and better ICT skills of pupils and teachers.
- From rankings to additional value schools create.
- Financing of education – more need based approach.



Advice?

- Estonia – UNICEF project in Belarus!
- But:
 - Learn but do not adopt immediately.
 - Be research based, invest into universities and to Education Science and researchers!
 - Changes in education do take time, at least 3-years cycle. Find results and impact before any other reform in the field.

We engage for vision, we divorce for values.





Thank you!

Birgit Lao

birgit.lao@Innove.ee

www.Innove.ee

