

# Workshop „Cooperation between industry and schools in STEM education“

## Setting the scene

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## Background

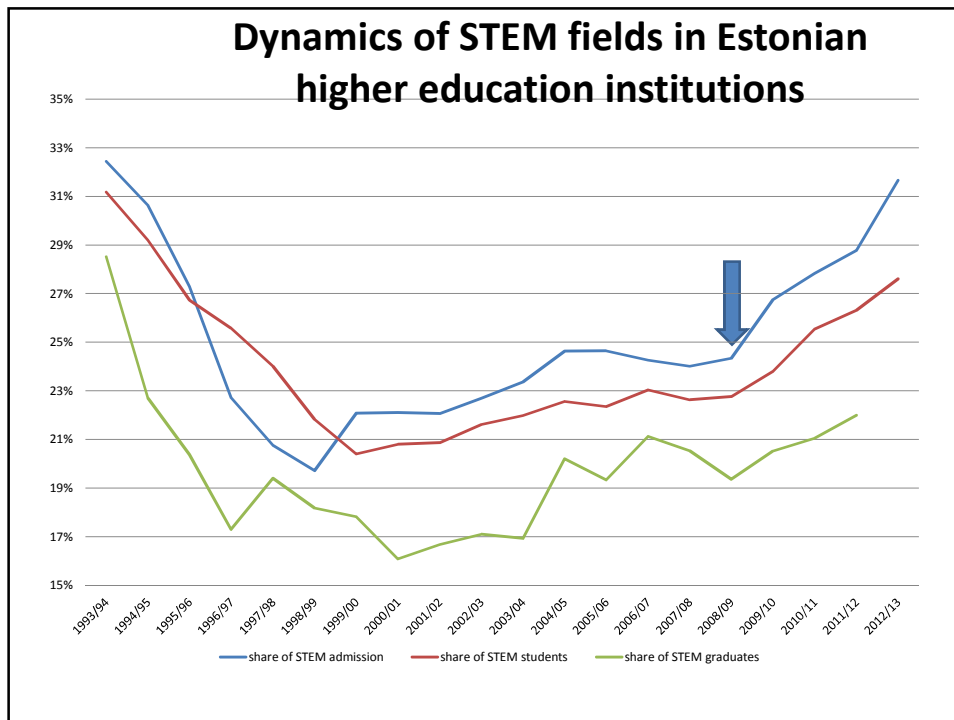
- First meeting at the Intel ISEF 2013 in Phoenix in May.
- Similar topics on the table – how to involve more enterprises into STEM education and science promotion activities
- Idea to hold a seminar with Estonian stakeholders
- And here we are today...

## Current science and technology popularisation activities in Estonia

- Science shows on TV:
  - Science contest „Rocket69“ for students;
    - best educational TV show in Europe (EBU 2012)
  - „On Top of the Pyramid“ for general audience;
- STEM teaching materials for gymnasium (ready for implementation)
- Science campaigns:
  - Year of Science 2011/12 (more than 300 events)
  - Career campaign „Real career“ for students
- Annual science contests:
  - Young inventor's contest
  - Science contest for pupils
  - Science contest for students
- Annual support for bottom-up projects through open calls
- Support for science centres (AHHAA and Energy Centre)
- Activities of the former Tiger Leap Foundation, etc...
- However, the involvement of enterprises into these activities has not been very systematic

## Public support

- **Trust for science and technology in Estonia is high (*Eurobarometer 2010*):**
  - Science and technology make our lives healthier, easier and more comfortable
    - **EE 72% agree/ EU 66% agree**
  - Thanks to science and technology, there will be more opportunities for future generations
    - **EE 87% agree/ EU 75% agree**



## RD&I strategy 2014-2020

- Some statements about STEM:
  - **Involve more enterprises** into promotion of science and science education;
  - Ensure **availability of adequate career information** for young people about career opportunities **both in the public as well as business sector**;
  - Support the systematic activities of **extracurricular education and hobby groups** of young people in the field of **engineering and natural sciences**;
  - Encourage cooperation between research institutions and educational institutions in the **creation and conduct of new STEM study programmes**.

## Expectations for today

- To get an overview of **school-industry cooperation models and platforms in the Netherlands and Denmark**;
- To get an **overview of the Estonian experience**;
- To hear which **methods** and **activities** of school-enterprise cooperation work better and which less;
- To hear how to measure the impact and results of these **methods and activities**?
- To hear what are the **main motivators** for schools and enterprises?
- To get input and **new ideas for future activities** and developments;
  - **However**, we have to be realistic and take into account the local conditions (school system, size, structure and knowledge-intensity of the economy, etc..).

## Agenda

- **10.10 -11.40 Experiences with creation of national STEM education platforms in the Netherlands and Denmark**
  - Background for the visit and thoughts on national platforms. **Mikkel Bohm**, director, Danish Science Factory
  - Experiences from the Netherlands. **Sebastiaan Smit**, project manager, Dutch Jet-Net
  - Experiences from Denmark. **Nanna Seidelin**, director, House of Natural Sciences and Danish Jet-Net
  - Industry's viewpoints. **Kim Lansford**, senior policy advisor, European Round Table of Industrialists
- **11.40 -12.00 Coffee break**
- **12.00 -12.45 Overview of the Estonian case**
  - Activities and experiences from the first year of the cooperation network of companies „Unistused ellu!“ (Make Dreams Come True)/ **Maarja Loorents**, Communications Manager, Estonian Chamber of Commerce and Industry
  - Practical example on school and industry collaboration in ICT sector. **Jüri Jõema, Doris Põld**, ITL
  - Summary of Estonian InGenious report **Signe Rosin-Ambre.**, InGenious project coordinator in Estonia, Information Technology Foundation for Education
- **12.45–13.45 Roundtable discussion** on further cooperation between enterprises and schools in Estonia in the STEM field and planning the following actions
- 13.45 End of Workshop