



TALLINN UNIVERSITY OF  
TECHNOLOGY

# TTÜ in numbers

- Appr. 12 000 students (25% of all students in Estonia study at TTÜ)
- 4 faculties (2017)
- 2015/2016 - 1/3 study programmes in English
- ~2000 graduates each year, 2000 employees
- TTÜ is the most preferred university - 72% of high school graduates in Estonia prefer TTÜ for continuing their studies
- 1900 international students from 99 countries (incl. degree and exchange students) 40% of all international students in Estonia
- Over 500 partner universities
- 4 university-business agreements per week
- 6.2% of university's revenue comes from cooperation with companies

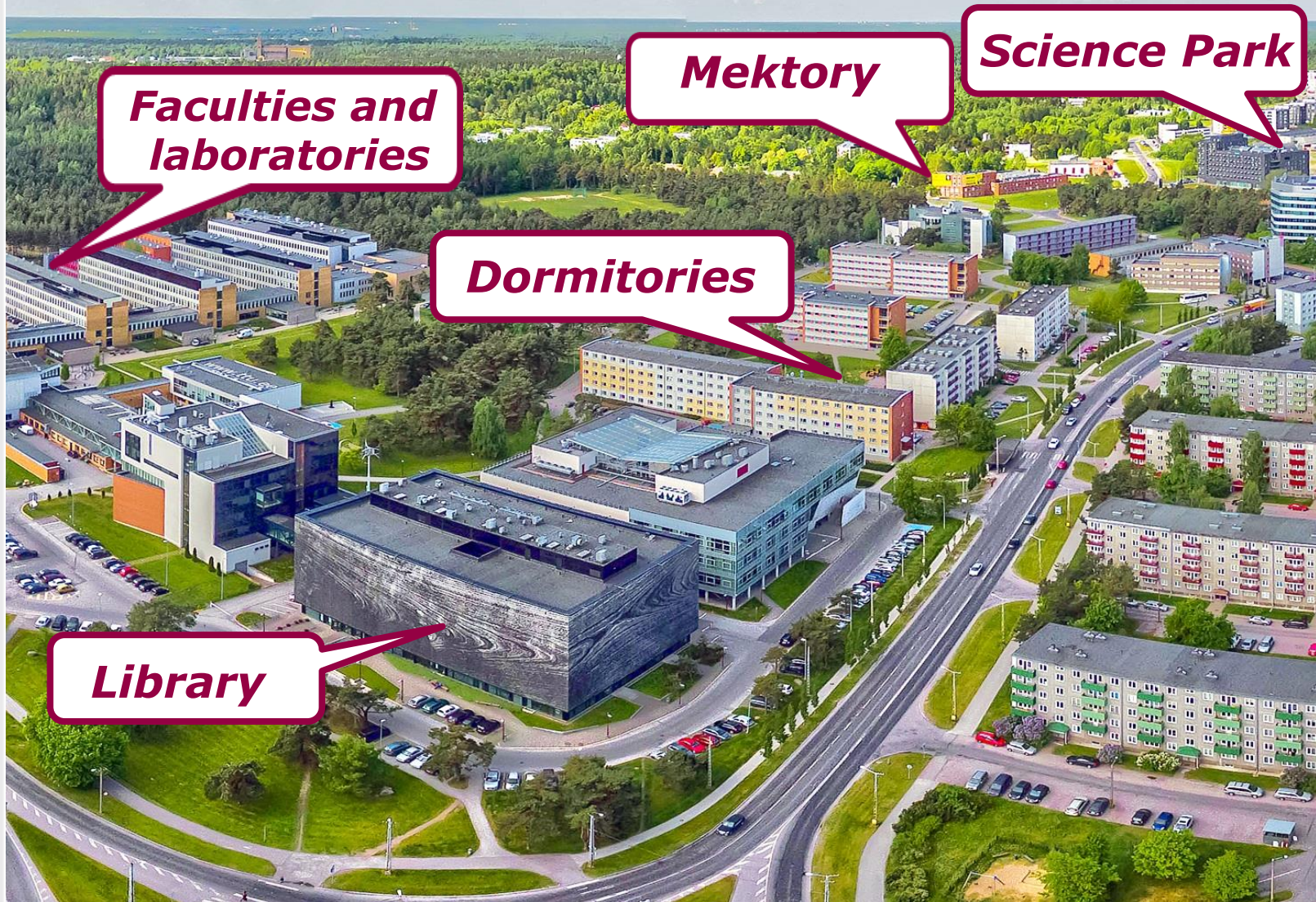
## TTÜ Innovation and Business Centre Mektory

- Over 200,000 visitors from near 160 countries
- 110 companies, 8 embassies





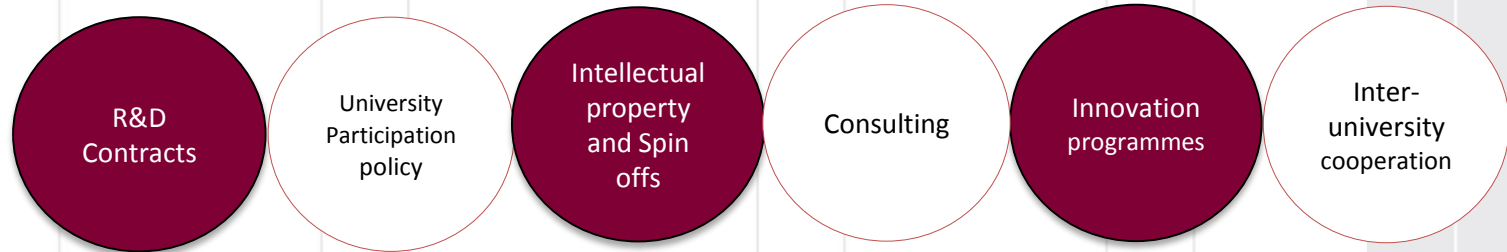
# TTÜ – campus university





# Innovation and Business Centre Mektory's services

- Technology transfer



- Mektory Centre as a networking venue
- Popularizing engineering among youth
- Start-up ecosystem (programmes)
- EducationUSA Advising Centre





# Technology Transfer

**Technology transfer is responsible for long term partnership between the university and companies**

- **R&D:** Projects, lab services, consultations, surveys, analyses, long and short-term contracts;
- **Project Management:** Preparation of project applications, consultation, administration;
- **Spin offs and start-ups:** Support in creating a spin off/start-up
- **Consulting:** expert advises, programme development, content marketing, network building, technology review/audit;
- **Intellectual property:** Commercialisation, funding opportunities, matching researchers with the needs of companies.

**6.2% of university revenues  
come from R&D contracts with  
companies**



# Cooperation with:



- **R&D projects** - 3-5 up to 10 years
- **TTÜ Mektory projects with students** - max 1 year
- **TTÜ Mektory building** - Ericsson demo-centre, 4G, 3G, WIFI testing ground
- **Studies/education** - Lectures, developing degree programmes, educational programmes for entrepreneurs
- **Lab investments**
- **Activities and events with students** - Conferences, job shadow days, students join Ericsson`s internal career fairs, company tours, brain-storming evenings
- **Technology trainee programm** - 8-month internship with salary for most talented students
- **Internship of scientists** - Scientists work part-time at Ericsson
- **Entrepreneurship competitions for school children**



TUT Innovation and Business Centre

# MEKTORY

MODERN ESTONIAN KNOWLEDGE TRANSFER ORGANIZATION FOR YOU



# Five aims of TTÜ Mektory



- To bring together scientists, students and entrepreneurs, to solve practical product development problems and generate new intelligent ideas (*technology transfer*)
- To maximize theoretical studies at the university through practice, to prepare better-trained engineers with experience in cooperating with companies (*labs, practical side of the studies*)
- To encourage students *start-up companies* to move forward
- To address upcoming generations and show that engineering is exciting, feasible and down to earth (*School of Technology*)
- To guarantee success in internationalization by bringing together different cultures, working habits, ideas and interesting solutions

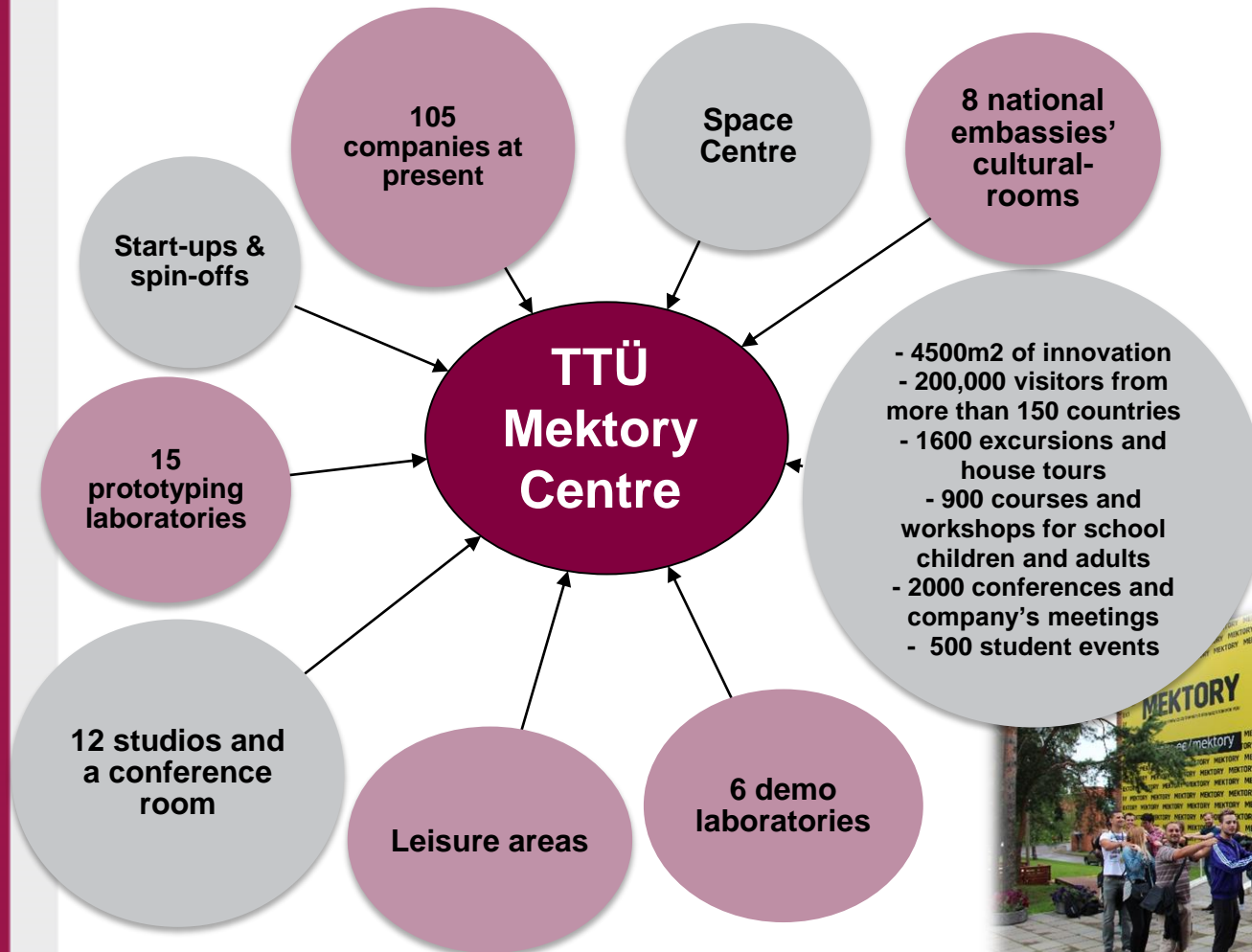
**Mektory – a way of thinking!**



# TTÜ Innovation and Business Centre Mektory

**M**odern **E**stonian **K**nowledge **T**ransfer **O**rganisation for **R** You

International innovative ecosystem, where businesses, students, professors, schoolchildren and investors from all over the world meet to generate new ideas and innovation together as one team.





# The first aim: technology transfer

To bring together scientists, students and entrepreneurs; solve practical product development problems and generate new intelligent ideas!

## TTÜ Mektory methodology

Companies'  
R&D staff

Supervisors from  
University who  
are responsible  
for project  
success

Students from  
different faculties  
as  
**interdisciplinary**  
project team  
members

All team meetings  
together with  
company

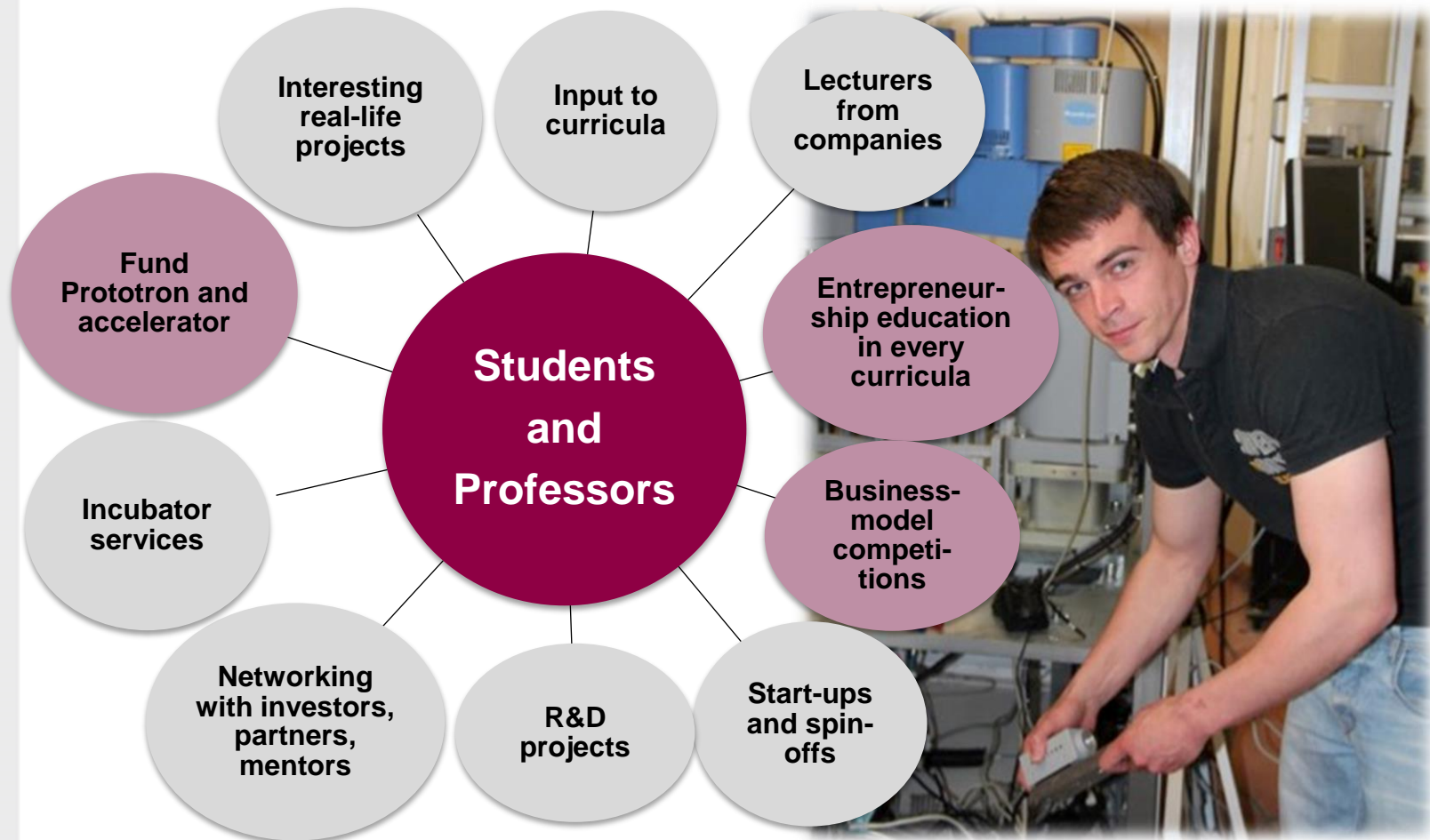
Mentors (among  
scientists and  
alumni)

Equipment operators  
who assure  
operational safety

**Outcome – TTÜ Mektory's R&D project finished in 4 to 8 months**  
**At least 30 projects every year**

# The second and the third aim: support student activities

- To tie theoretical studies at the University with the practical side
- To prepare better-trained engineers with an experience of cooperation with companies.
- To encourage student's **start-up companies** and professor's **spin-offs** to move forward



# Studios and labs in TTÜ Mektory



## Studios and demo centres

- Samsung Digital Academy
- Ericsson Connectivity Room
- Ventilation lab „Club Fresh Air“
- Logistics lab
- Business models
- Glass Studio
- Energy Studio

## Prototyping and testing labs

- Wood lab, metal lab
- Welding lab, paint lab
- Automaticum, electronics lab
- Mechatronics lab, Cool Tool studio
- 3D Printing Innovation Lab
- Telia Testlab
- LEGO lab „Playful learning“
- Smart Lab
- Virtual reality lab „Re:Creation“
- eHealth lab, eRiik
- Space Centre
- Heating lab „Utilitas“



# TTU Mektory Start-up Programs

## Youth Start-up Program „Bright Minds“

- **Target group:** all students from middle and high-schools all over Estonia
- **Skills and knowledge of the start up world** for students and their teachers
- **No age limitations** for participating
- **Ideas preferably in STEM** fields (science, engineering, technology, mathematics)
- **800 students and 70 teachers** from **10 counties** has taken part in Bright Minds program in 2 years!
- **Bright Minds program starts again in November 2017**

## Pre-incubation Program

- **Target group:** all students from Universities, Applied Science Universities, Vocational Schools
- **Trainings, lectures and workshops** for 4 months
- **e-courses** on Youtube.com and live on Facebook
- **Financed** by EU Funds
- **Mentoring** Days, coaching
- **Evaluation** of the development process
- Special trainings for **developed startup teams**
- Started again in **February 2017**
- **Demo Day** 25th of May
- **NGAL3** first time in TTÜ in June 2017

## Start-up Competitions

- **Target group:** all start-up ideas and teams (students and graduates)
- **Technology** oriented ideas
- **7 competitions** in five years
- International - **26 different nationalities**
- More than **200** business ideas
- Over **1000** participants
- Mentoring and coaches
- **Business Angels and Investors** and mentors in Jury
- **Prizes** like room in Mektory, Study Trips
- **Next competition in December 2017**

## Incubation activities

- **Target group:** start-up teams from the competition or pre-incubation
- Up to **30 start-up companies** supported
- **Office** in Mektory building
- Participation in **trainings and lectures**
- **Supporting activities** (meeting rooms, technical support, advice)
- **Finding and bringing investors**, funds, projects to meet start-up teams
- **Possibility to mentor**, coach and train others – students, school children and teachers
- **Link** between **accelerators** and **incubators**

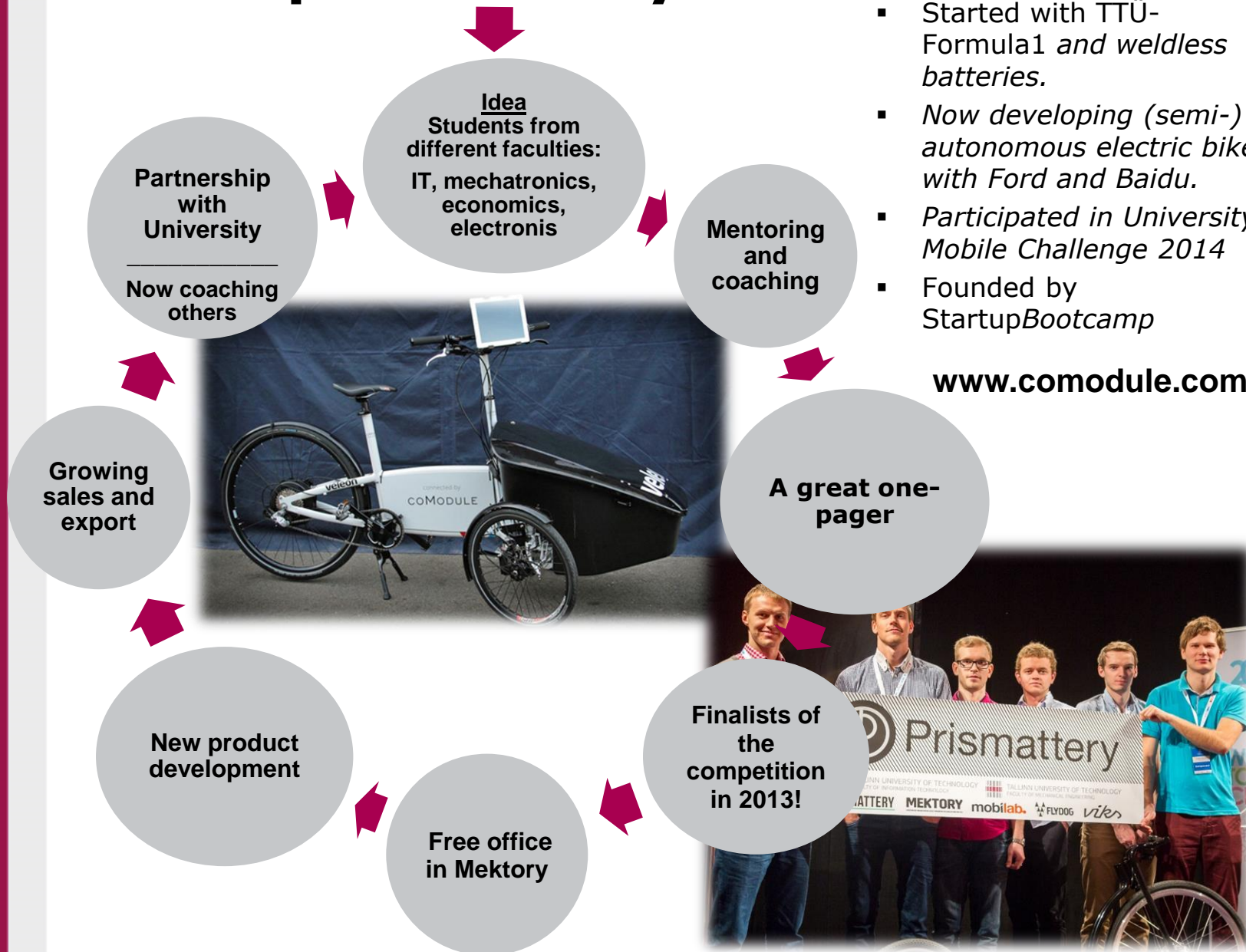


# Circle of Successful Start-up in Mektory

## coMODULE

- Established in 2013
- Started with TTÜ-Formula1 *and weldless batteries.*
- *Now developing (semi-) autonomous electric bikes with Ford and Baidu.*
- *Participated in University Mobile Challenge 2014*
- Founded by StartupBootcamp

[www.comodule.com](http://www.comodule.com)



# Mektory Start-up Success Stories



Smart Load Solutions - winner of 2014  
Already raised seed investments  
Top 30 under 30 - Forbes



3DPrinterOS - winner of 2012  
Invested in by Paul Allen (Microsoft)  
20+ workers in Estonia and USA

## CoModule

CoModule/Prismattery - finalist of 2013  
Raised investment  
8 workers



## Lainergy

Lainergy - finalist of 2015  
Winner - KIC InnoEnergy Highway®  
10 000€ Prize



[www.leansiteapp.com](http://www.leansiteapp.com)

Leansite - finalist of 2015  
Project management software for  
construction sites  
Startup Wise Guys Accelerator  
30 000€ investment

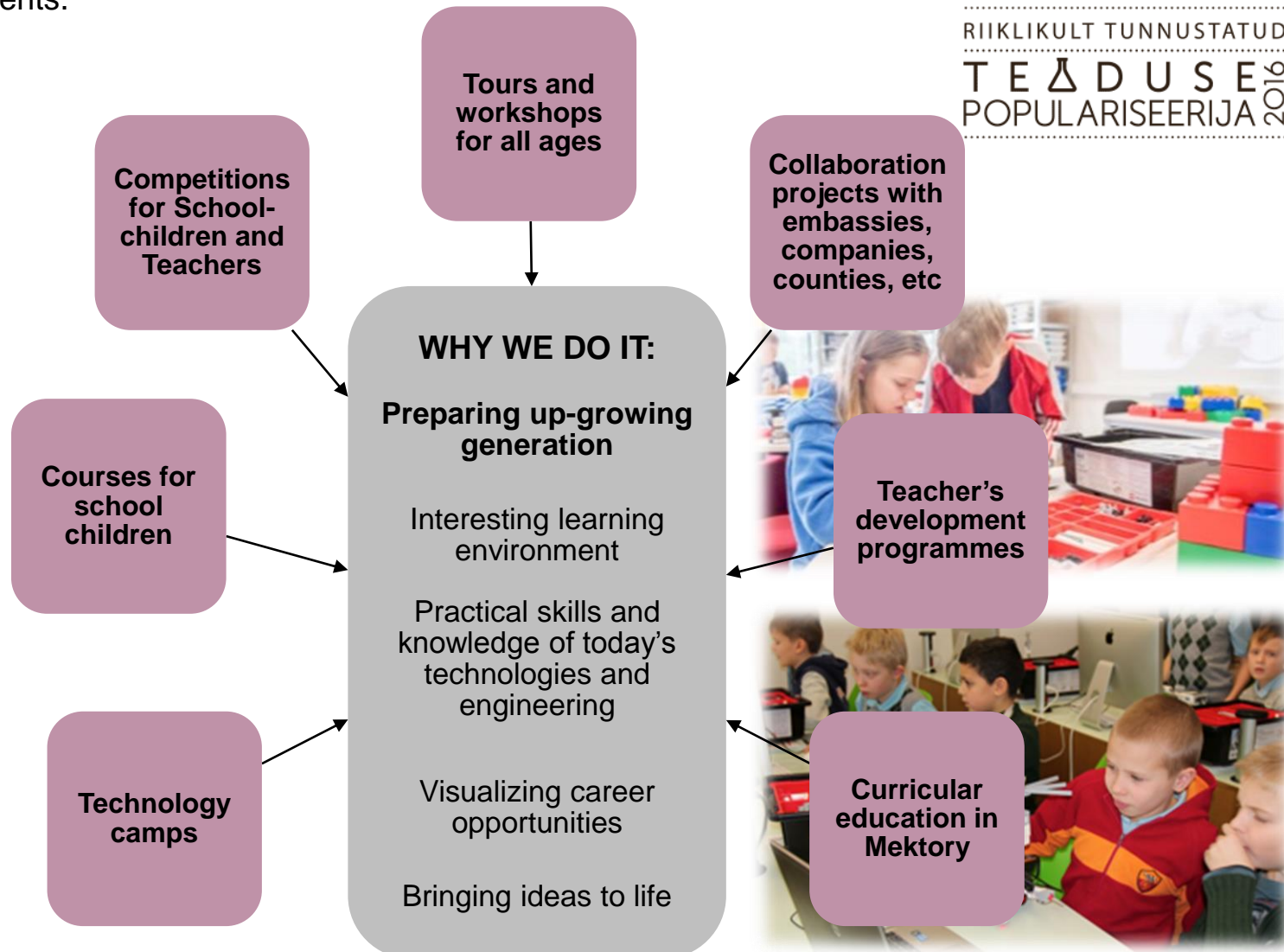


**FORBES TOP 30 list of most successful  
young entrepreneurs in Europe 2016  
(2 are from EST/TTU/Mektory)**

# The fourth aim: activities for school-children and teachers

To support the up-growing generations and school teachers: to show that engineering is exciting, feasible and down to earth; to prepare entrepreneurial and ambitious future students.

RIIKLIKULT TUNNUSTATUD  
TEADUSE  
POPULARISEERIJAS 2016

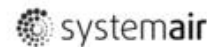




# TTÜ Mektory supporters and partners (1)



# TTÜ Mektory supporters and partners (2)



# TTÜ Mektory supporters and partners (3)



**ERGO**



elektrilevi

**INDOOR**  
GROUP



DOWNTOWN  
VISUALS  
Architectural Visualisation

**ADVEN**

Advanced Energy Solutions



**Finesta**



**SORAINEN**

ESTONIA LATVIA LITHUANIA BELARUS



**FECC**  
Finnish-Estonian  
Chamber of Commerce

SUOMALAIS-EESTILÄINEN  
KAUPPAYHDISTYS



SOOME-EESTI  
KAUBANDUSÜHING

# More information:



## **Start-ups in TTU Mektory: Anu Oks**

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[www.ttu.ee/mektory](http://www.ttu.ee/mektory)

[www.ttu.ee/startup](http://www.ttu.ee/startup)

**Waiting forward bringing new  
innovative ideas into life!**