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

- Faculties and laboratories
- Mektory
- Science Park
- Dormitories
- Library
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

Modern Estonian Knowledge Transfer Organisation for 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.

- 4500m² of innovation
- 200,000 visitors from more than 150 countries
- 1600 excursions and house tours
- 900 courses and workshops for school children and adults
- 2000 conferences and company’s meetings
- 500 student events

105 companies at present

Start-ups & spin-offs

6 demo laboratories

8 national embassies’ cultural-rooms

15 prototyping laboratories

12 studios and a conference room

Leisure areas

TTÜ Mektory Centre
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, elecronics 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**

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**EduTegu STARTER**

**TTU Mektory**

**STARTUP COMPETITION**

**prototron**

**Tehnopol**
Circle of Successful Start-up in Mektory

- 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
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

Leansite
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.

WHY WE DO IT:

Preparing up-growing generation

Interesting learning environment

Practical skills and knowledge of today’s technologies and engineering

Visualizing career opportunities

Bringing ideas to life

Competitions for School-children and Teachers

Courses for school children

Technology camps

Tours and workshops for all ages

Collaboration projects with embassies, companies, counties, etc

Teacher’s development programmes

Curricular education in Mektory

Courses for School-children and Teachers
TTÜ Mektory supporters and partners (1)
TTÜ Mektory supporters and partners (2)
More information:

Start-ups in TTU Mektory:
Anu Oks
Start-up program manager
anu.oks@ttu.ee, +372 620 3497

www.ttu.ee/innovation
www.ttu.ee/mektory
www.ttu.ee/startup

Waiting forward bringing new innovative ideas into life!