

TTU 100

Developments of Doctoral Education at the Tallinn University of Technology

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Workshop on Doctoral
Studies, Tartu

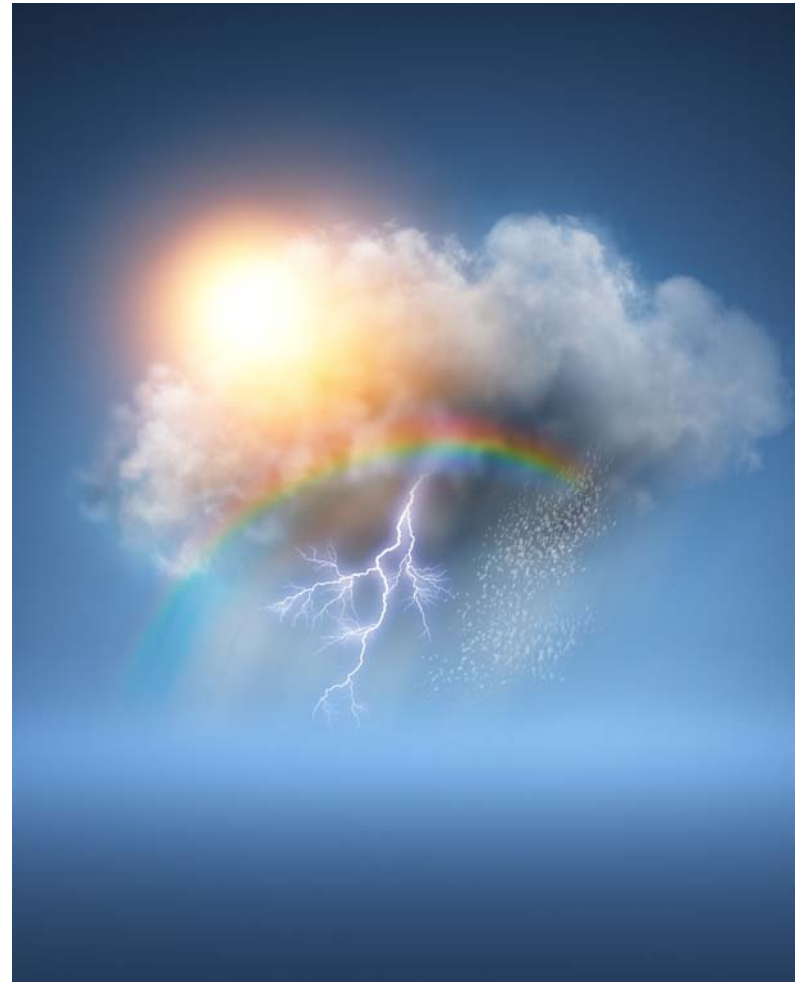
Background

Problems:

- Percentage of students who graduate within the nominal period of study: 6.6%
 - percentage of students who defend their thesis within the nominal period of study + 2 years: 25%
- Percentage of dropouts compared to the number of students admitted in 2003-2017 more than 39%
- 1/3 of part-time PhD students will defend their theses

Objectives:

- 90 defences a year
- Percentage of students who graduate within the nominal period of study + 2 years: 50% (performance indicator in ASTRA programme)

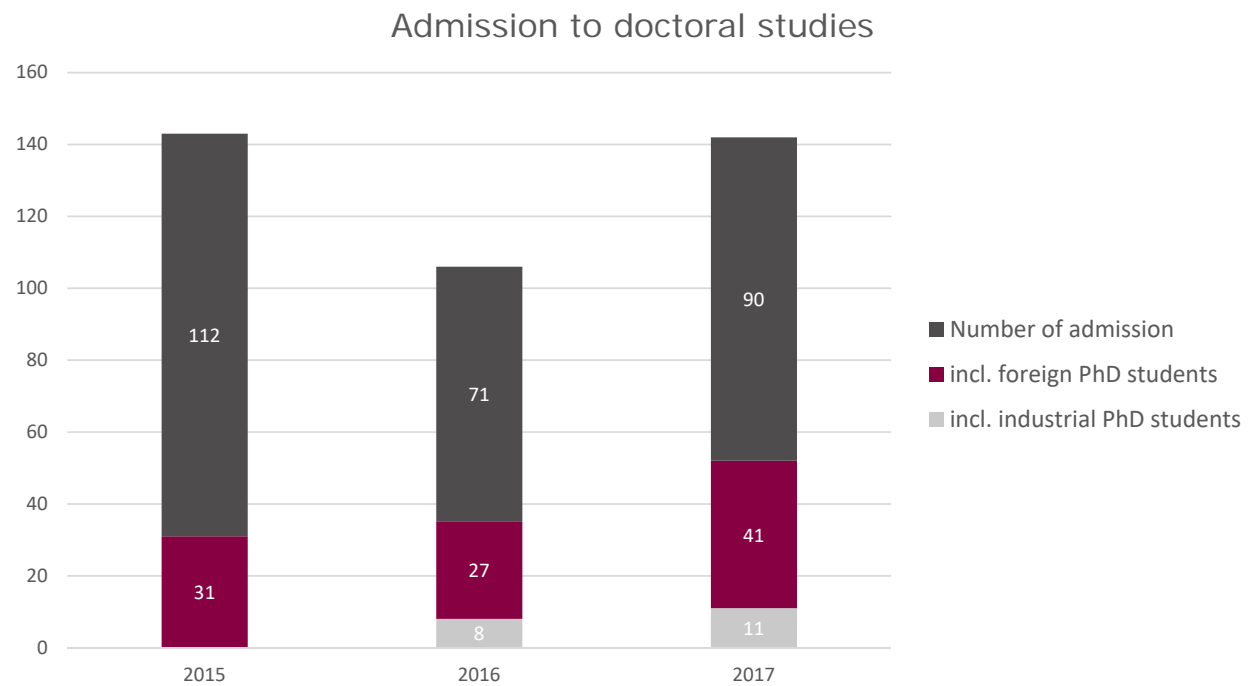


Activities to achieve objectives

- Suitable conditions exist for admission of the PhD student – a competent supervisor, the required research funding
- Development of study programmes
- PhD students are involved in research projects, students gain teaching and supervision experience (Early Stage Researchers)
- Uniform rules and quality requirements will be established throughout the university:
 - for attestation of PhD students
 - for evaluating the performance of the supervisors
 - for provision of feedback
- It must be made sure that all PhD students participate in the activity of Doctoral Schools
- The industrial doctorate model will be developed

Admission

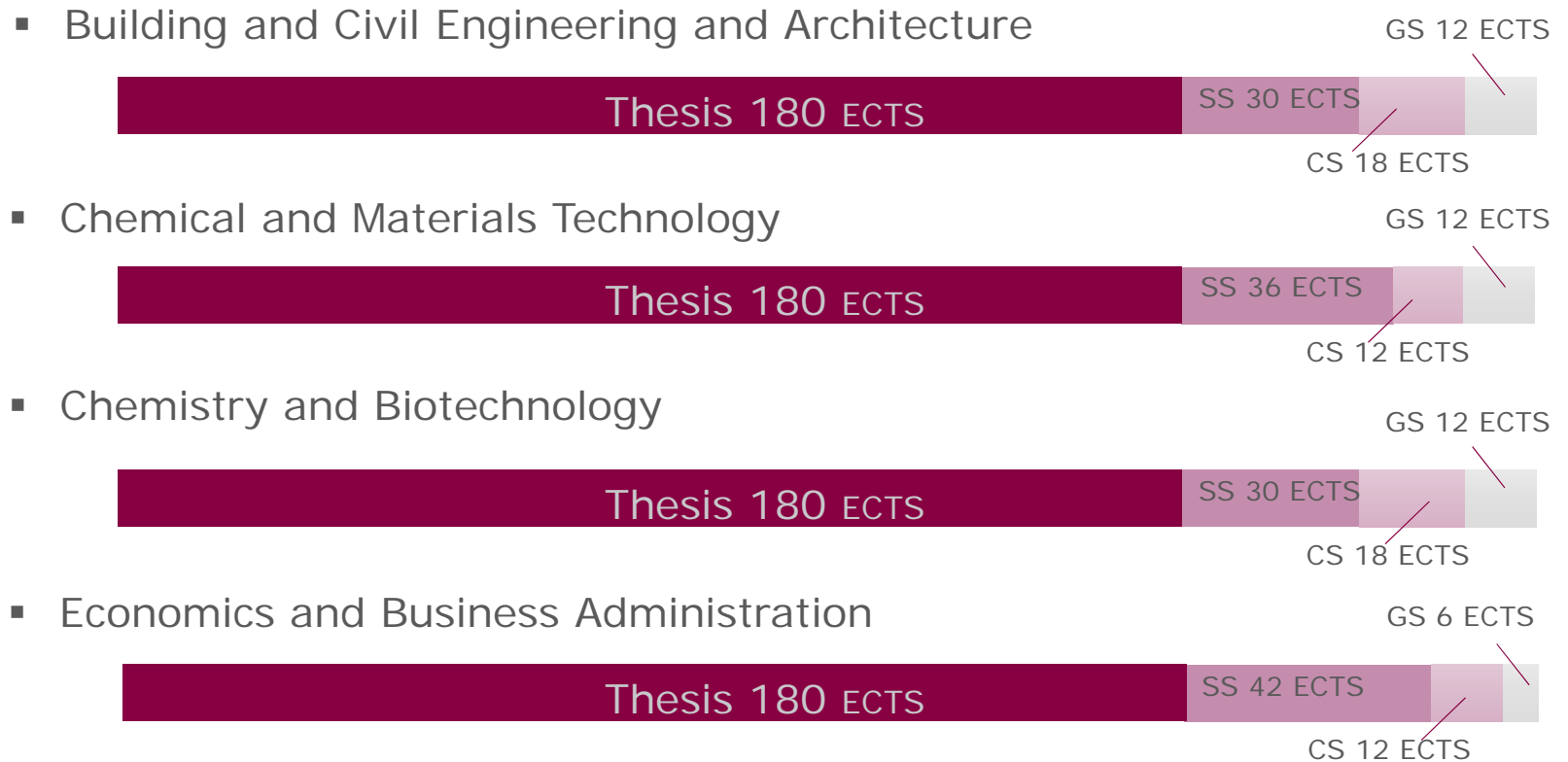
- Competition to supervisors
- Admission to announced PhD topics
- Industrial PhD



Development of PhD Programmes

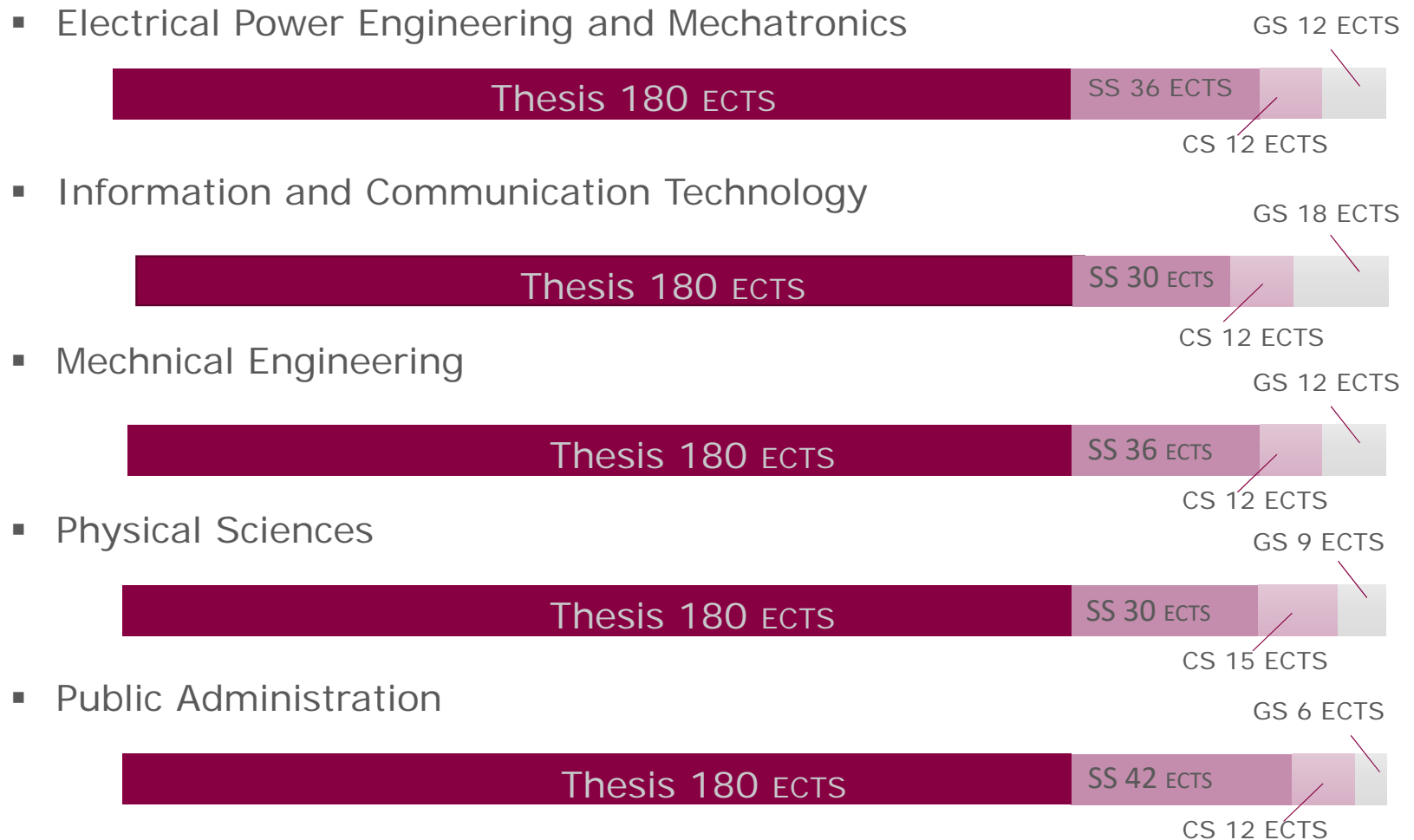
- In 2016 the Curriculum Statute were established, which lays down the general structure of PhD curricula:
 - Doctoral Studies 60 ECTS
 - Doctoral Thesis 180 ECTS
- Doctoral Programme comprises the following modules:
 - General Studies, minimum workload 6 ECTS
 - Common to all study programmes
 - Related to transferable skills
 - Elective courses
 - Core Studies, minimum workload 12 ECTS
 - Courses specific to the field of study
 - Special Studies, minimum workload 24 ECTS
 - Compulsory courses are teaching practice and Doctoral Seminars
 - Individual study based on Doctoral Thesis

Study Programmes (1)



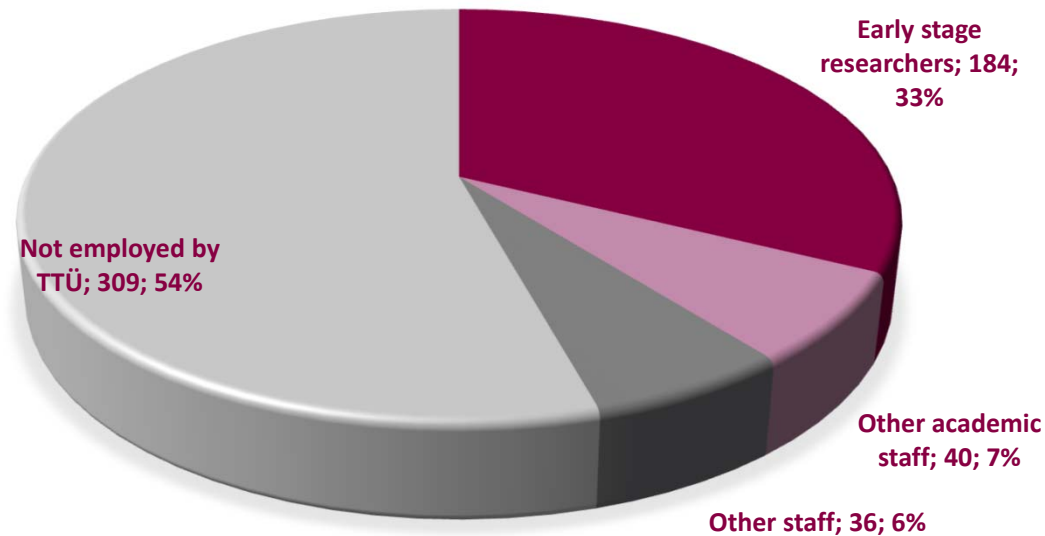
SS – Special Studies CS – Core Studies GS – General Studies

Study Programmes (2)



Doctoral Students as Earley Stage Researchers

- Strategic Plan of TTÜ 2020: We regard Doctorals Students as Researchers, who, together with post-docs, have a vital role in consistent strengthening of TTÜ´s capacity for research
- 2017 TTÜ had 569 Doctoral Students of which 184 were employed as Early Stage Researchers



Quality insurance

- Attestation
 - Evaluation criteria for the attestation committee
 - The PhD student's report on the implementation of the action plan must include self-assessment
 - The supervisor evaluates the PhD student's performance on a scale from 0 to 5
 - The attestation committee assesses completion of a study programme cumulatively as percentage
- Quality assurance of supervision
 - The level of scientific expertise of the supervisors is monitored
 - Existence of the resources required for research
 - The supervision load is monitored; the recommended number of PhD students per supervisor is 5
 - Training for supervisors. Some programmes and Doctoral Schools have been conducted. It is essential to support trainings centrally and to organize trainings on a regular basis
- Feedback
 - Feedback on lecturers and courses is ÖIS-based and voluntary
 - Irregular, not centrally regulated collection of feedback on supervision
 - The goal is to ask for feedback regularly

Doctoral Schools

- TTÜ participates in 9 Doctoral Schools
- 3 Doctoral Schools are led by TTÜ:
 - Doctoral School in Civil and Environmental Engineering
 - Doctoral School in Energy and Geotechnology
 - Doctoral School of Information and Communication Technologies
- All Phd students belong to one DS based on the research field of their Doctoral Thesis
- Main activities supported by DS:
 - interdisciplinary research projects
 - mobility of doctoral candidates
 - winter and summer schools
 - co-supervision with foreign research institutions or private sector

Industrial PhD

- Industrial Doctorate Statute established by TTU Council
- Interest and willingness of the private or public organization to contribute to research and development in cooperation with the university
- Industrial PhD student has a valid employment contract entered into with an organization
- All the rights and obligations laid down for PhD students by law and the legislation of the university shall apply to industrial PhD students
- Full-time industrial PhD student has the right to receive doctoral allowance paid by the government
- A co-supervisor (PhD) or consultant have been appointed by the organization



TTU > 100

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