



**TAL
TECH**

SCHOOL OF ENGINEERING

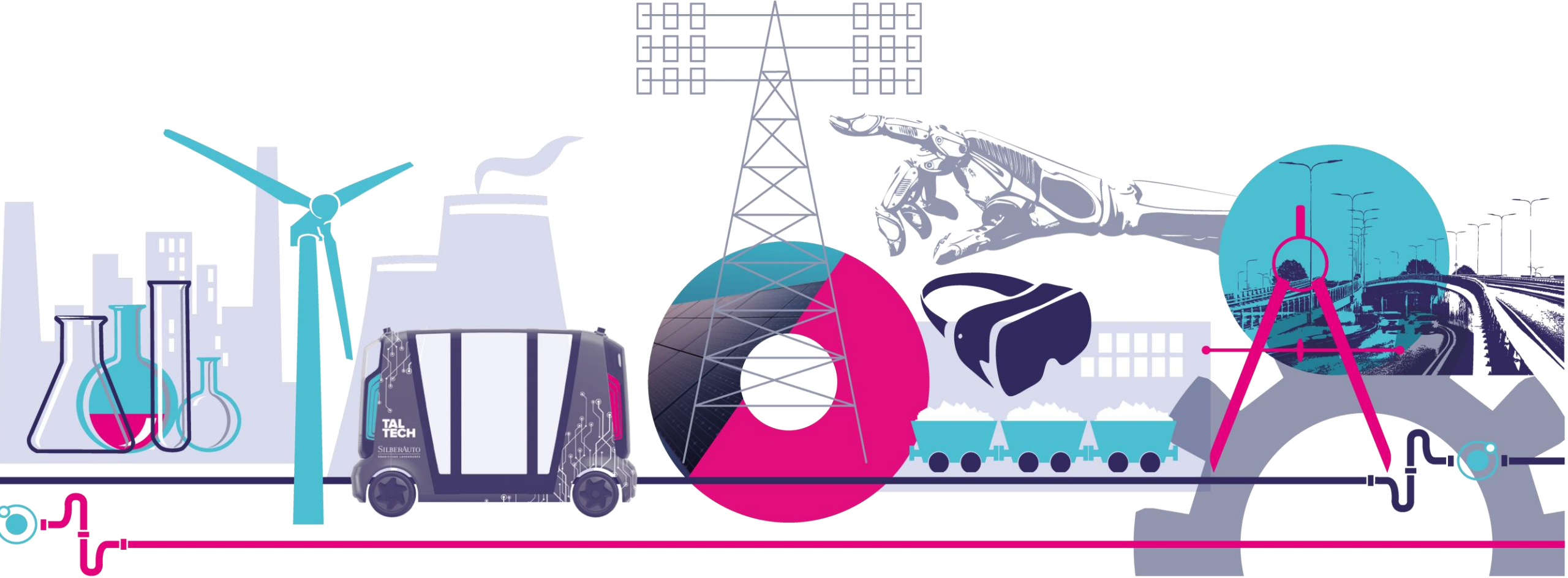
2023

FJODOR SERGEJEV

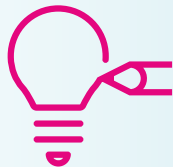
- Engineer, Chartered Mechanical Engineer, EstQF Level 8 (certificate number 151506)
- PhD (materials engineering), 2007-
- Tenure Associate Professor (metals processing), 2020-
- Dean of School of Engineering, 2020-
 - Vice-Dean for Academic Affairs, School of Engineering, 2017-2020
 - Head of Department of Materials Engineering, 2015-2016
 - Vice-Dean for Academic Affairs, Faculty of Mechanical Engineering, 2012-2015



The graduates of the School of Engineering are **true engineers, inventors, innovators** and **business leaders** tasked with shaping the future technologies.



VISION



To be a leader of well-known and valued engineering and technology research and development projects in Estonia, and a respected partner in national and international cooperation networks and organizations

MISSION



To be a promoter of engineering studies at all academic levels and a provider of competitive research and development-oriented engineering education in Estonia



**KURESSAARE
COLLEGE
DIRECTOR
MERIT KINDSIGO**

KURESSAARE COLLEGE'S mission is to ensure high-level education, research and development of the **blue economy** in the region, being a respectable **partner** in both national and international cooperation networks and organizations.

The establishment of the college is a step towards increasing the **regional presence** of the university of technology, long expected by local **entrepreneurs** and the wider community.

APPLIED HIGHER EDUCATION STUDIES

- Marine Engineering

BACHELOR'S STUDIES

- Sustainable Technologies in Blue Economy

MASTER'S STUDIES

- Marine Engineering

DOCTORAL STUDIES

Engineering Sciences

Specialities:

- Environmental, Coastal and Marine Technology

MARINE ENGINEERING

- New study programme at Master level started 2023, English language
- Learning outcomes
 - The graduate:
 - **has** a comprehensive and systematic overview of the principles of ship building, of specific characteristics and regulations of maritime domain;
 - **applies** the extensive knowledge acquired through professional work in marine technology enterprises or for solving research problems;
 - **applies** interdisciplinary methods and suitable techniques and technologies for analysing, assessment and solving of problems in their professional field, is able to assess possible consequences of the solutions being offered;
 - **uses** modern simulation and modelling techniques, applies IT tools for solving complex engineering tasks and practical problems;
 - **knows, evaluates, designs** and etc.

COMPETENCES FOR A SUSTAINABLE FUTURE

Five key trends across countries and sectors which will potentially impact the future skill and workforce requirements for engineers:

- The *electrification* of society
- A move towards *systems thinking*
- Increased *knowledge sharing* and *big picture thinking*
- The increasing role of *data* and *digitalisation*
- A future demand for *engineers with soft skills*

PROJECT EDUCATION VS CHALLENGE-BASED LEARNING

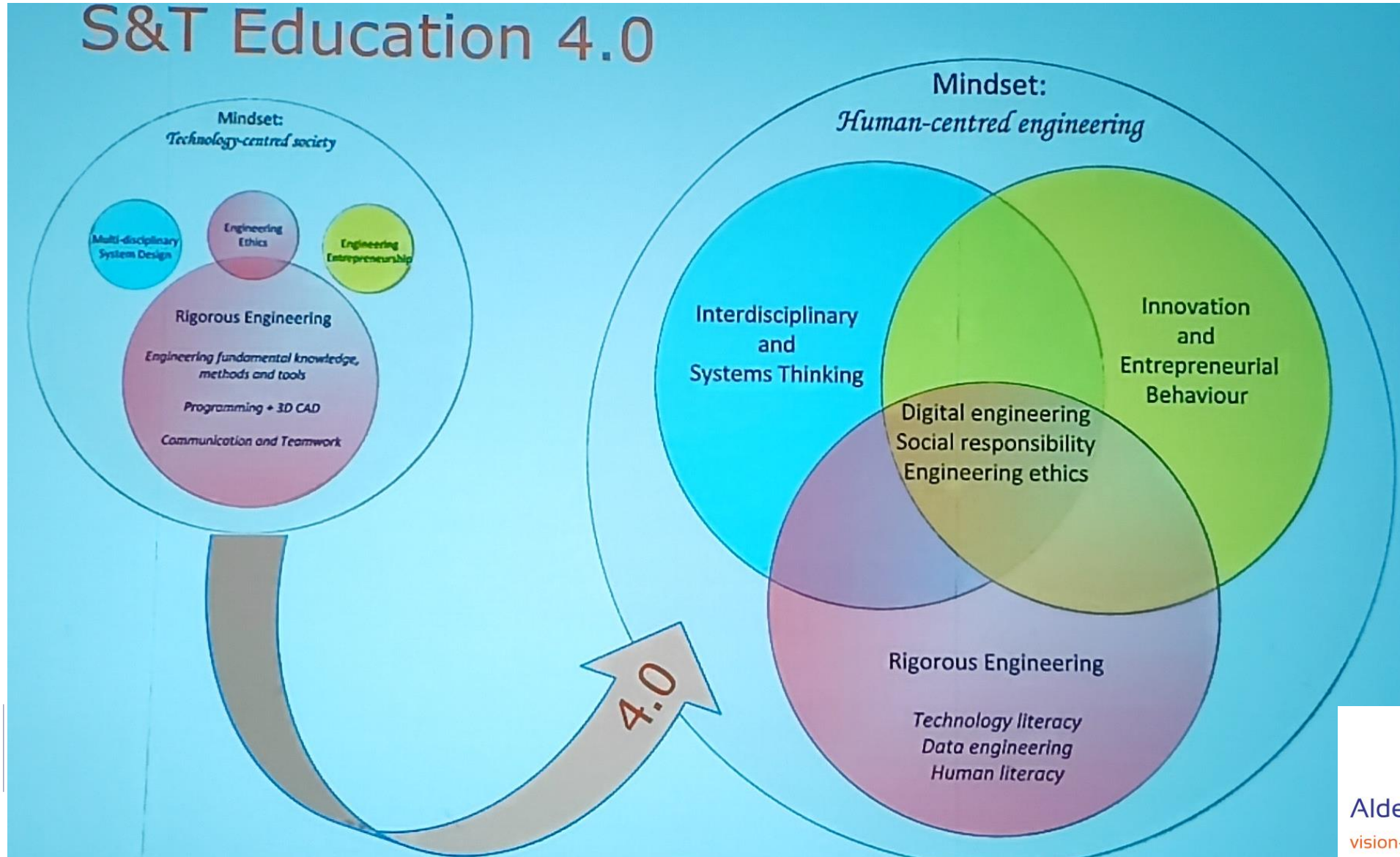
Capstone project education	Challenge-based learning
Engineering	Engineering, business, society
Product context	Societal context
Known problem, unknown solutions	Unknown problem, unknown solutions
Fundamentals	Fundamentals, range, tools
Mono- and multidisciplinary	Inter- and transdisciplinary
Integrative	Holistic
Customer needs	Value driven
Teamwork	Teamwork and individual
Coach and student	Co-learners, together with stakeholders
Academically interesting	Authentic real life, positive societal impact

Adapted from Comparative Analysis of Challenge Based Learning Experiences. Malmqvist, et al. (2015)



Aldert Kamp

ENGINEERS ARE LEADERS OF OUR FUTURE





TAL TECH

TALLINN UNIVERSITY OF TECHNOLOGY School of Engineering

Ehitajate road 5, 19086 Tallinn
taltech.ee/en/school-of-engineering

Kuressaare College – Tallinna 19, Kuressaare, Saaremaa
Tartu College – Puiestee 78, Tartu
Virumaa College – Järveküla road 75, Kohtla-Järve