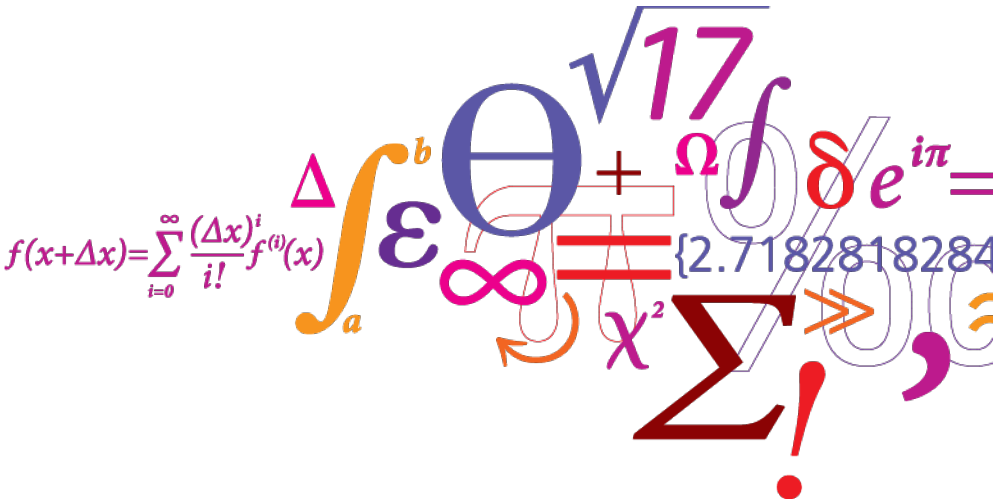
From Exchange to Exiciting Joint Educational Offerings

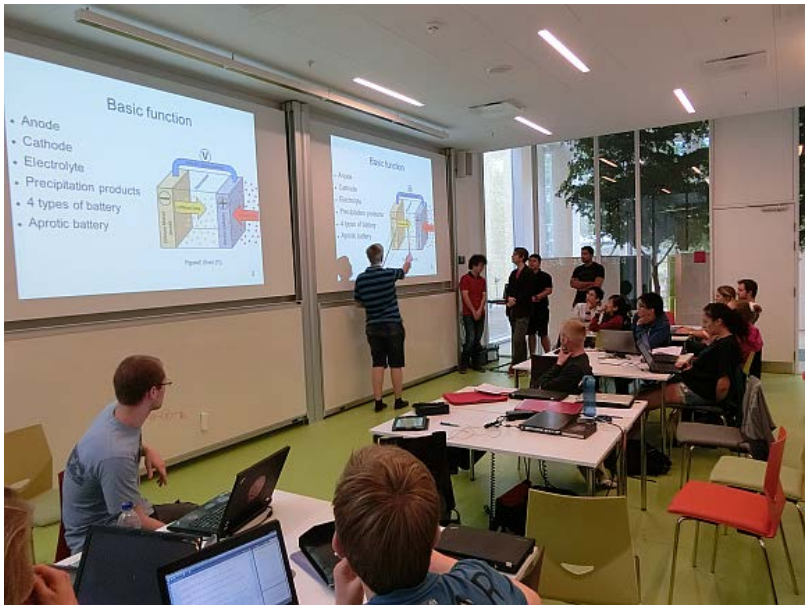
Global E3 Annual Meeting 2016

Martin P. Bendsøe
Senior Vice President and Dean
Technical University of Denmark



Move towards more advanced forms of collaboration

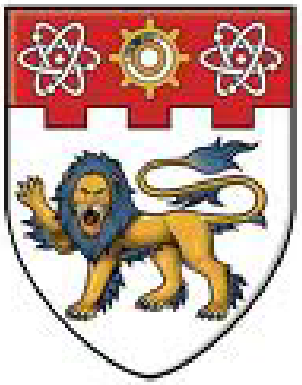
- International Joint and Double Degree Programs
- Joint Innovation Workshops,
  - E.g. NTU/RPI/DTU Innovation Workshop
- Other short-term overseas immersion



Why move beyond traditional exchange

- University-perspective:
  - Means of expanding collaboration with universities of strategic interest
- Student-perspective:
  - More choice in relation to international learning experiences
- Faculty-perspective:
  - More direct involvement in quality assured international learning experiences
  - New platform for faculty-faculty collaboration

Examples from 3 collaborating universities



Joint programmes
- added value for students and institutions

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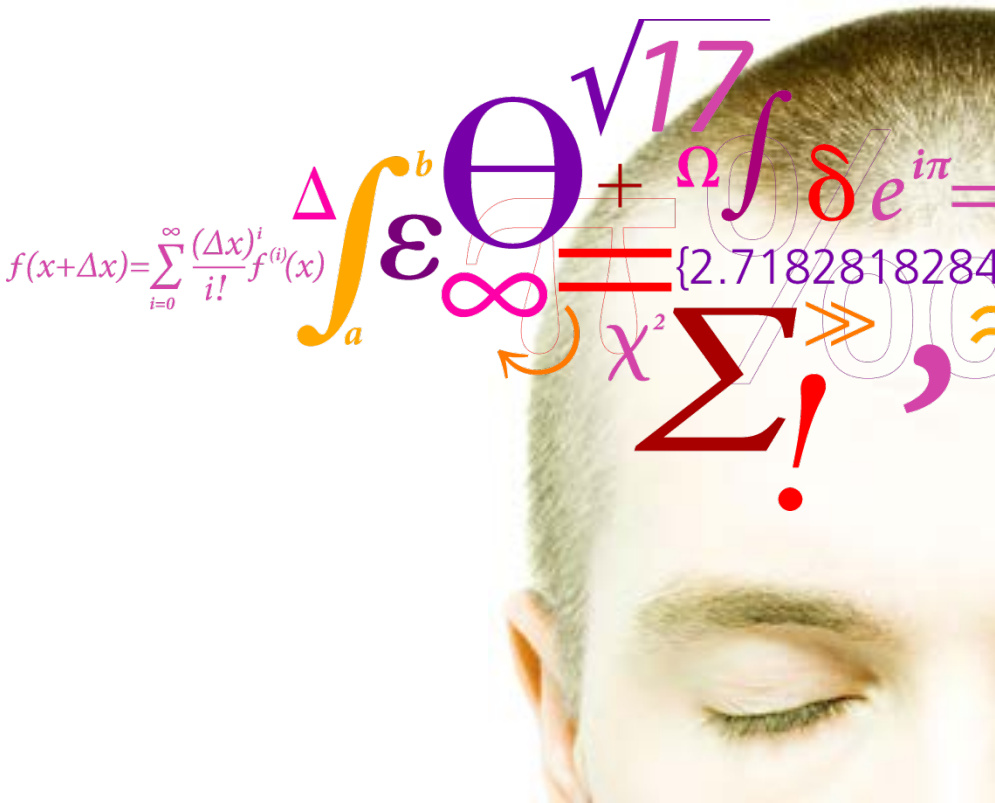


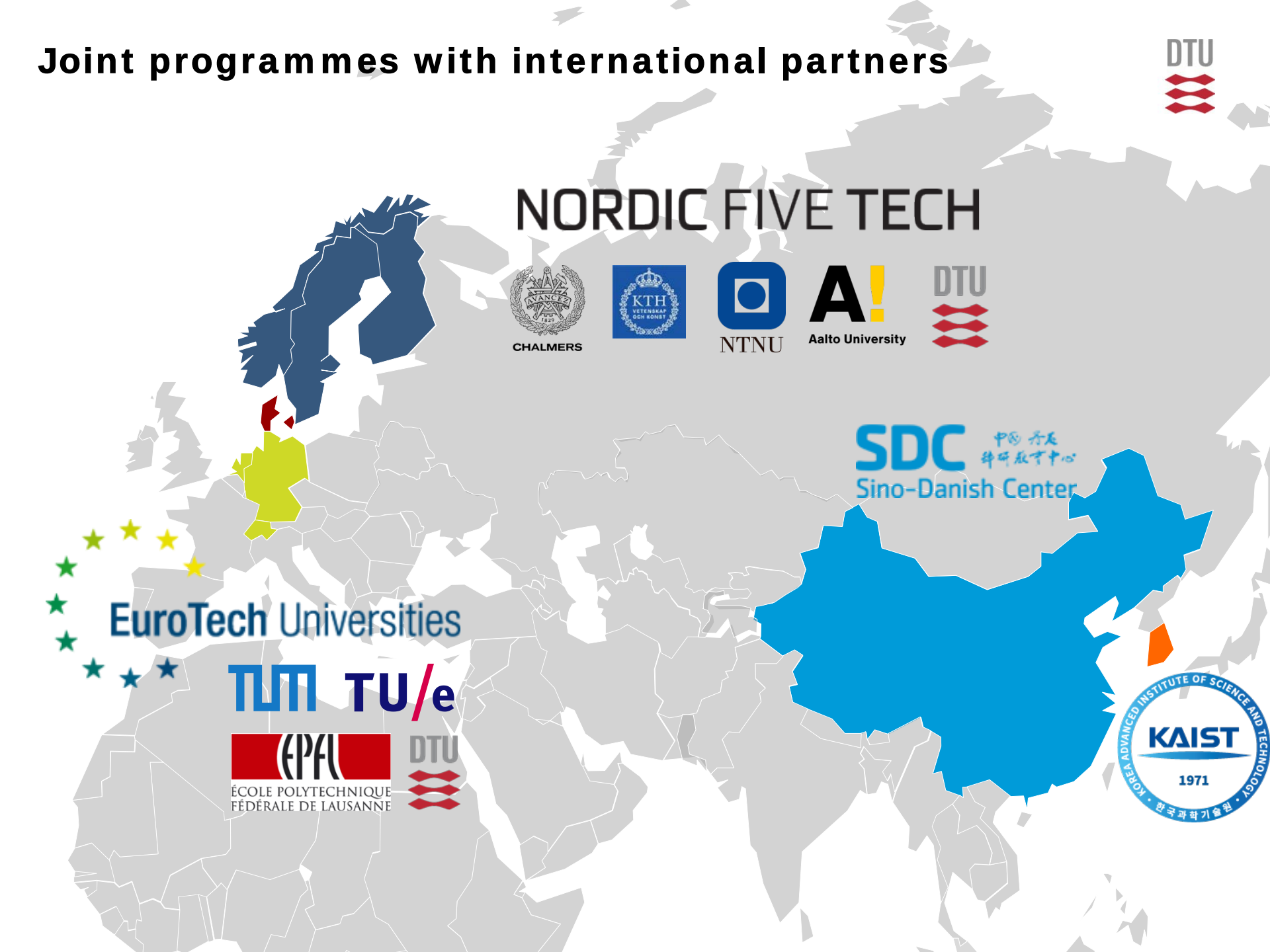
Global exchange partners

>200 exchange partners

Top exchange Agreements

- Nanyang Technological University
- TU Munich
- TU Delft
- KAIST
- Monash University
- National University of Singapore
- UBC
- NTNU
- University of Queensland
- Rensselaer Polytechnic Institute

Joint programmes with international partners



Joint Master programmes at DTU

Erasmus Mundus European Wind Energy Master	Erasmus Mundus Nordic Security and Mobile Computing	Nordic Master in Aquatic Food Production	Joint master in Applied and Engineering Mathematics N5T	Nordic Master in Innovative and Sustainable Energy Engineering N5T
Nordic Master in Maritime Engineering N5T	Nordic Master in Sustainable Urban Transitions N5T	Nordic Master in Environmental Engineering N5T	Nordic Master in Polymer Technology N5T	Nordic Master in Cold Climate Engineering N5T
1:1 MSc programme in Environmental Engineering EPFL	1:1 MSc programme in Environmental Engineering TUM	1:1 MSc programme in Computational Mechanics TUM	1:1 MSc programme in Physics and Nanotechn TUM	1:1 MSc programme in Management TUM
Dual MSc degree in Mathematical Modelling and Computation KAIST	Dual MSc degree in Computer Science and Engineering, KAIST	Dual MSc degree in Engineering Design and Applied Mechanics KAIST	Dual MSc degree in Engineering Acoustics KAIST	Dual MSc degree in Electrical Engineering KAIST
Dual MSc degree in Offshore Wind Energy KAIST	Dual MSc degree in Photonics KAIST	Dual MSc degree in Telecommunications KAIST	Dual MSc degree in Chemical Engineering	Dual MSc degree in Electrical and Mechanical Engineering
		Chemical and Biochemical Engineering Sino Danish Centre		

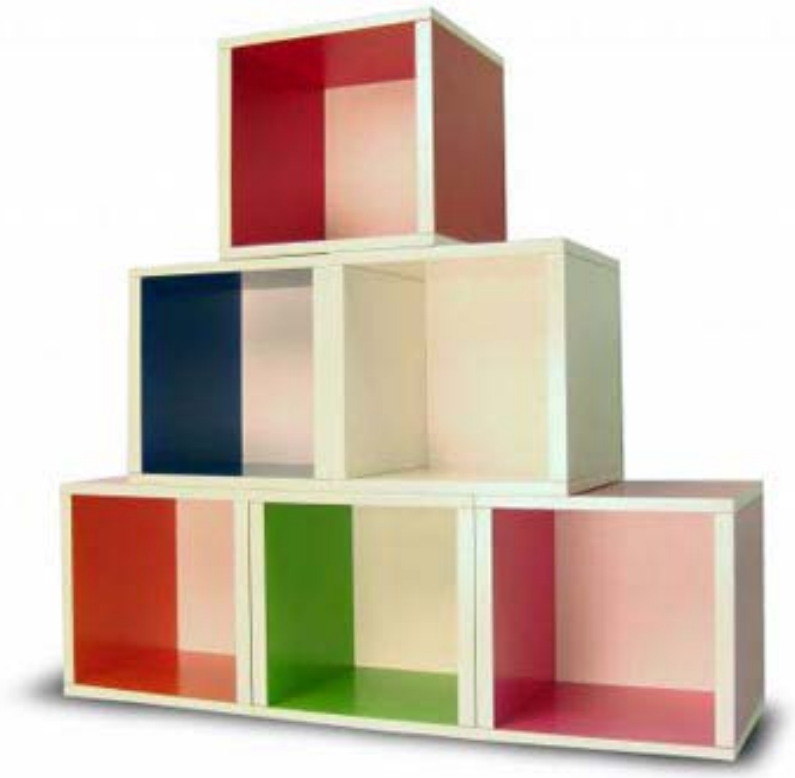
Some of our basic considerations

- Our joint programmes are based on **complementary competences.**

- We aim to create **unique offers** to our students

– with clear **relevance** to the labour market.

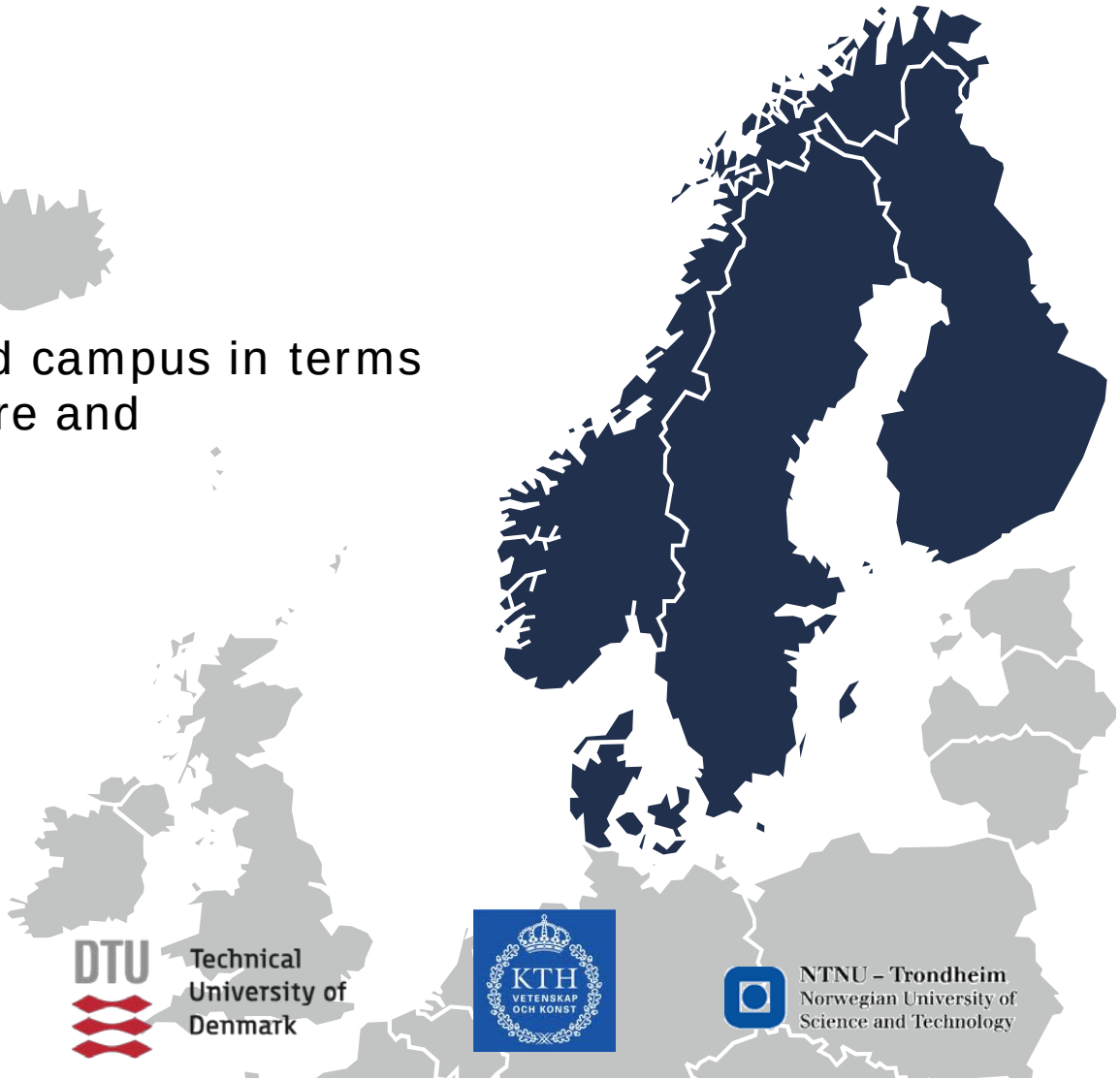
- We do joint programmes with **well - established partners**.



NORDIC FIVE TECH

From our charter:

- Establish a N5T extended campus in terms of activities, infrastructure and competence



Aalto University

CHALMERS

DTU Technical University of Denmark

KTH VETENSKAP OCH KONST

NTNU – Trondheim Norwegian University of Science and Technology

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The N5T joint MSc programme model

General principles

- Specializations within existing MSc degree programmes
- 60 + 60 ECTS
- ”Building block” model
- Pre-defined study tracks
- Co-supervision of thesis
- Double degrees

Semester 1	University 1
Semester 2	University 1
Semester 3	University 2
Semester 4	University 2

Nordic Master in Maritime Engineering

First year
The first year is offered at all five institutions.

Second year
Each university has the lead responsibility for one track and the specialisation year is offered by that institution.

Ocean structures at NTNU

Passenger ships at Aalto

Ship design at Chalmers

Ship operations at DTU

Small craft at KTH

Some lessons learned

- Uniqueness
- Simplicity
- Clear competence profiles
- Nordic flavour
- Marketing
- Aligned administration
- Patience