



Education and Sustainable Development at KTH

Per Berglund, Professor, Vice Dean of Faculty
Responsible for Educational Structure and Content

KTH-Sustainability Education Day
May 12, 2015



President's Group





Per – What is he doing?

<https://www.kth.se/en/om/organisation/kth-s-ledning-1.15618>



Per Berglund

Vice Dean of Faculty

Responsible for educational structure and content

- Chair of the Education Committee
- Programme structure
- Pedagogical development
- Dimensioning of educational programmes
- Third-cycle (doctoral) studies
- Continuing professional development



From KTH's Strategic Plan 2013-2016

KTH aims to take a leading role in pedagogical development of relevance for engineering education and teacher education.

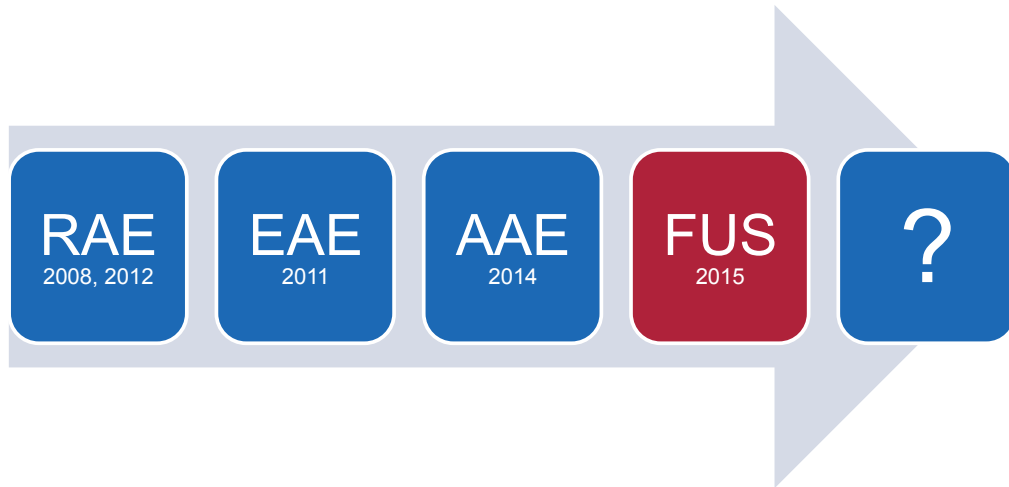


Educational development to be a natural part of KTH's core business and each teacher's career

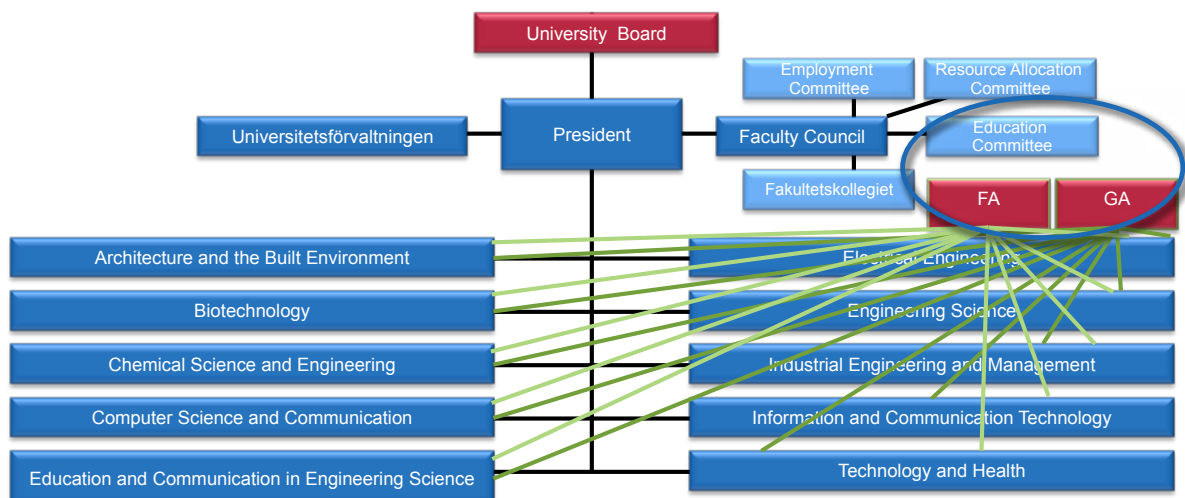
This development within KTH shall be supported by an established research environment in Engineering education.



Internal evaluations for quality enhancement



Educational Leadership at KTH





KTH is a programme university

16 MSc Engineering programmes (5 years)
1 MSc Engineering & Teachers programme (5 years)
1 Architecture programme (5 years)
1 Teacher's programme in Engineering (4.5 years)
9 BSc Engineering programmes (3 years)

English →

4 BSc programmes (3 years), one in English

English →

62 Master programmes (2 years), all in English

5 Master programmes (1 year)

1 university diploma programme (2 years)

1 Preparative university training programme (1 year)

English →

30 Doctoral programmes (4 years)



On-going developments

- Educational program development (sustainability focus)
 - Support at ECE
 - CDIO syllabus
 - Learning outcomes
- E-learning as a complement to campus-based education
- Pedagogical program/guidelines
- Pedagogical developers at the schools (~23 teachers)
 - By far the largest effort (10 million SEK)
 - Teaching and learning in focus



Roles of the facilitators at UBC and U Colorado

	Facilitate faculty communication and consensus building
	Collect, distill, and communicate data to support and guide faculty efforts
	Develop curricular materials and teaching approaches in collaboration with faculty
	Serve as a local resource for faculty
	Facilitate sustainability by archiving and disseminating materials



Carl E. Wieman



The Nobel Prize in Physics
Eric A. Cornell, Wolfgang

Schools

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9



Educational Developers at the Schools

Goal: “to stimulate and facilitate for the teaching staff, teaching teams and programs to manage and implement educational development”

Task to the ECE school:

- Develop the concept
- Act as process support
- Provide pedagogical expertise
- Project leaders: Ann-Sofie Henriksson & Dan Borglund

Reports to the Education Committee

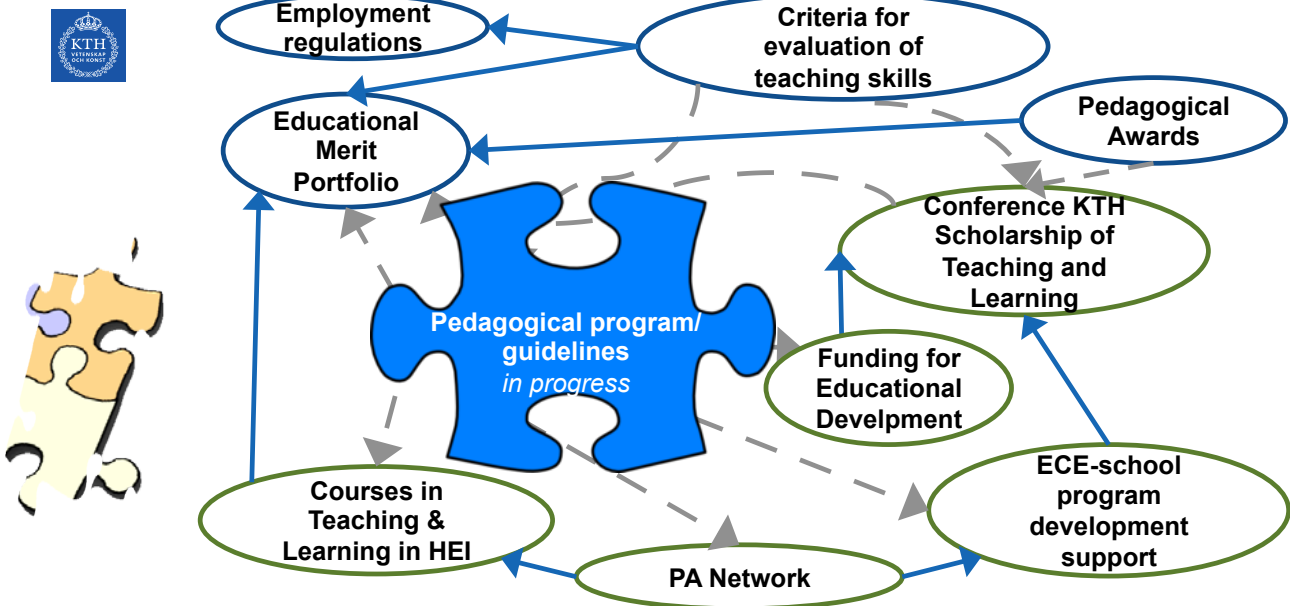
(President’s decision UF-2013/0361)



Tasks for the developers at KTH

Together with teachers, PA, GA...:

- Create communities of practice to stimulate dialogue around learning and development
- Create possibilities to develop learning environments at KTH aiming at higher quality in student learning and performance/through put
- Act to scientifically document and share educational development at KTH through conferences and journals (scholarship of teaching and learning)





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13