



***A Program of Research on
Opportunities and Challenges
in Engineering Education
in Denmark (PROCEED)***

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Challenges Facing Engineering Education

- *The sustainability challenge – how to deal with environmental problems and climate change*
- *The societal challenge – how to foster a sense of social responsibility among engineers*
- *The technoscientific challenge – how to combine scientific understanding and technical skills*



The Sustainability Challenge

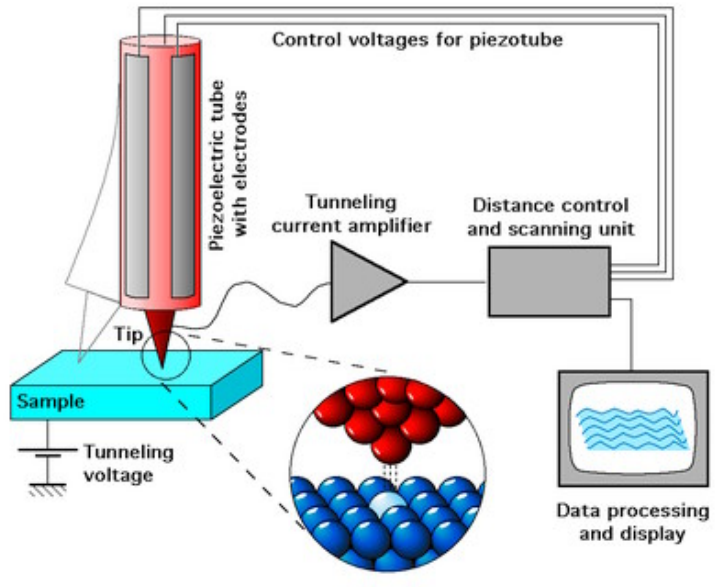
“The climate crisis is not a political issue, it is a moral and spiritual challenge to all of humanity. It is also our greatest opportunity to lift global consciousness to a higher level.”

from Al Gore’s Nobel Peace Prize acceptance speech



The Societal Challenge

- o Due to the increasing role that technology plays in ever more areas of society, there is a*
- o growing need for organizational, managerial and communicative competencies*
- o and for economic, social and broader cultural "contextual" understanding among engineers*



The Challenge of Technoscience

- *A blurring of discursive boundaries*
 - *between science and technology, nature and humanity*
- *A trespassing of institutional borders*
 - *between public and private, economic and academic*
- *A mixing of skills and competencies*
 - *between theoretical and practical knowledge*

PROCEED:



a Cross-fertilization of Research Fields

- Engineering education and pedagogy (Aalborg and Aarhus)***
- Philosophy and ethnography of engineering (Roskilde and DTU)***
- History of engineering and science (Aalborg, DTU and Aarhus)***



*...and an ongoing
interactive process*

- *with international advisers/collaborators in US, Netherlands, Vietnam and Australia*
- *engineering society (IDA) and companies*
- *and, not least, engineering colleges in Denmark*