

Technology, Innovation, Society group

<https://www.tue.nl/en/research/research-groups/innovation-sciences/technology-innovation-society/>

‘How to make the energy transition happen’



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1. Technology, Innovation, Society (TIS)

faculty Industrial Engineering & Innovation Science (IE&IS)

- Research group ~60 persons
(with also an excellent track record in teaching...)
- Excellent in research, world leading group in energy transitions, multi-disciplinary group, social-science with a technology orientation
- Active collaboration with companies, governmental organizations, NGOs
- Excellent job opportunities
- Autonomy, freedom of topic selection / specialization, comes with responsibility

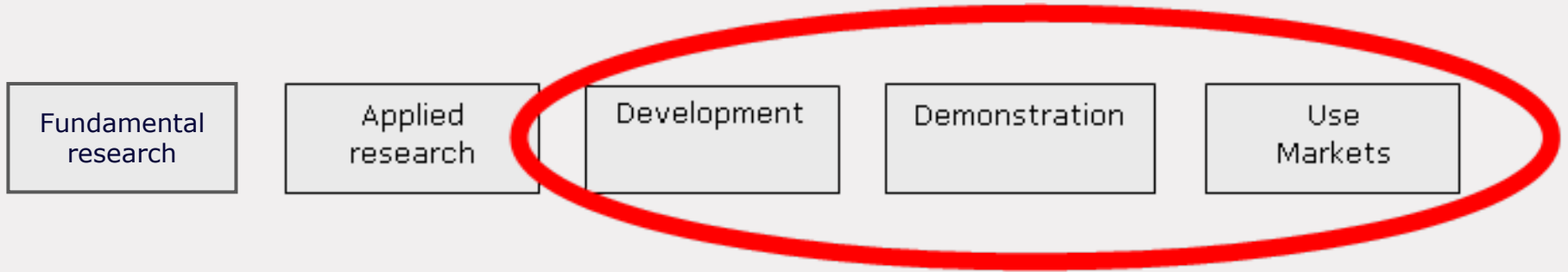
1. Technology, Innovation, Society (TIS)

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- Mission1: to accelerate sustainability transitions in energy and mobility.
- Mission2: to realize fair and inclusive energy transitions in global north/south.
- Aim to contribute to UN Sustainable Development Goals
 - clean and affordable energy (SDG 7)
 - industry, innovation and infrastructure (9)
 - reduced inequalities (10)
 - sustainable cities and communities (11)
 - responsible production and consumption (12).

Example projects: Bridges, TGD, Musegrids, CVPP, Cleantech, Fair Energy Transitions, NEON research, SCALE hydrogen, Maritime batteries, FAST, URBANE, Every1

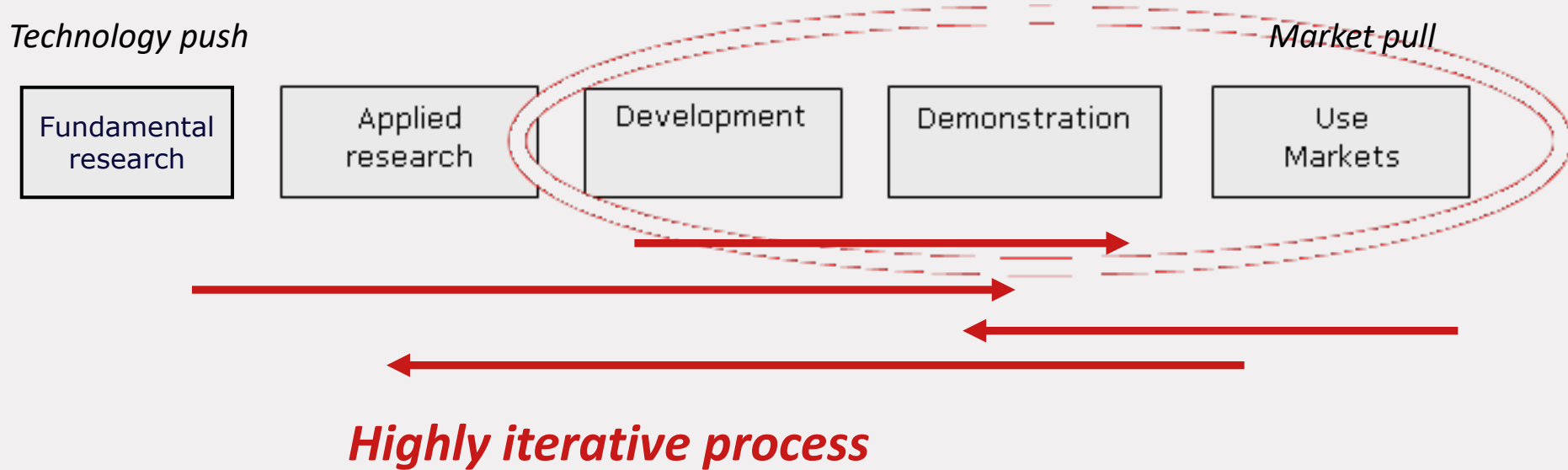
1. Innovation science is about....



- ... the application of technologies
- ... their diffusion, implementation, feasibility
- ... how to be successful in innovation processes
- ... how technology works in the real world

1. Innovation science is about....

*Closing down or opening up ??
THE solution, or exploration ??*



DO YOU EVER ASK YOURSELF .. ?!

- ... who or what determines what the energy supply will look like in 2050?
- ... whether new technologies will just raise more problems?
- ... whether the energy transition is fair, who the winners and losers will be?
- ... whether the energy transition needs an engineering approach, a market approach, or a community-based approach?
- ... how to empower stakeholders to come to transformative change?

OUR STARTING POINTS ... !!

- Society shapes technological progress, and technology shapes our society.
- Sustainability transitions require radical transformation and innovation
- Understanding transitions requires a socio-technical system perspective technologies, firm strategies, consumer behavior, social practices, institutions, regulations
- We link engineering knowledge and a social science approach.
- We work closely with societal stakeholders in all our projects, including consumers, firms, NGOs and policymakers.

TIS GROUP KEY RESEARCH !!



ENERGY TRANSITION

- accelerate the energy transition
- technology-society interactions in sociotechnical systems
- regional energy communities
- experimenting, learning, empowerment
- responsible innovation
- greening industries



MOBILITY TRANSITION

- link mobility / energy transition
- implementation and impact of electric and hybrid cars
- alternative fuels
- mobility as a service
- smart mobility



CIRCULAR ECONOMY

- interaction energy - circular economy
- circularity and impact of renewables
- system engineering studies of socio-technical systems on alternative fuels and feedstock
- the role of industry in the transition



DEVELOPING COUNTRIES

- fair and inclusive energy transitions
- technology transfer
- capacity building
- sustainable & responsible innovation
- feasibility studies



Follow up Meeting TIS group

Tuesday Sept 20th, 12.30

Atlas 8.335

Please apply by sending an email to a.f.kirkels@tue.nl