M.Sc. Program INNOVATION SCIENCES

TIS STAFF MENTOR PROFILES

(LAST UPDATE SEPTEMBER 2021)

Please note:

- We try to match IS students to staff mentors based on joint affinity with research topics and/or methods. But this is not always possible for logistic reasons. Note that all listed staff at our group should in principle be quite capable of mentoring any student, and when the time comes, refer students to appropriate colleagues for MSc thesis supervision.

- All listed mentor staff are connected to the M.Sc. Program *Innovation Sciences* as tenured (or tenure-track) staff at the *Technology Innovation Society* group of the School of Innovation Sciences.

- These slides are *** indicative only *** of their profile & main research interests

TU/e

prof.dr. F. (Floor) Alkemade

Topics:

Energy and mobility transitions

Fair energy transitions

Social simulation

Energy and Innovation policy

Courses

0EM120 Governing Innovations

Prof.dr. R.N.A. (Rudi) Bekkers

Topics

Standardization and intellectual property rights

University-industry knowledge transfer

Innovation in network industries

Courses

0EM160 Innovation and Intellectual Property Rights

0EM81 Innovation and intellectual property

0SAUC0/OSEUB0/OSSUC0 Patents design rights & standards project

dr. Frauke Behrendt

Topics:
- Sustainable Mobility
- Smart Mobility
- Cycling and active modes
- Mobile Media
- Datafication
- Digital innovation
- Sonic and Creative Approaches
- Qualitative Methodologies

Courses:
- OSEUCO Future of Mobility – Project
- OSAUBO Future of Mobility – Exploratory

TU/e

Dr. Jonas Colen Ladeia Torrens

I am interested in supervising students in **(urban) sustainability transitions**, with particular attention to the processes of urban, policy and societal experimentation and their institutionalisation in local and regional governments, across different empirical domains and provision systems. I work closely with local and regional authorities in the Netherlands. These are some of my interests:

- How to develop 'transformative capacity' in local authorities and increase the impact of their activities?

- How to monitor and evaluate experiments, labs and experimental programmes?

- How to accelerate innovations in the maintenance of urban infrastructures and align them with sustainability objectives?

- How to catalogue, monitor and develop 'portfolios of experimentation' conducive to accelerating sustainability transitions?

- How to facilitate different dimensions of learning (technical, political, social) in service of sustainability transitions?

- How to develop 'learning infrastructures' and platforms for catalysing sustainability transitions at local and regional scales?

Empirically, this includes an interest in governmental and civil society efforts to initiate and run living labs, innovation labs and experimental programmes. I am also keen to explore new topics such as the emergence of 'chief technology' and 'chief science officers' in cities across the globe, understanding how they operate and how they impact the above-mentioned questions or emerging approaches to project management that respond to sustainability transitions.

TU/e

Prof.dr. H.C. (Heleen) de Coninck

Topics

- International and national climate policy

- Technology development and transfer to developing countries, and international cooperation in technology and innovation

- Energy-intensive industry, energy, CO_2 capture and storage

- Just transitions, systemic and transformational change

Courses I'm contributing to:

0EM310 From industrial ecology to cradle to cradle

0EM140 Energy, Economy and Society

TU/e

dr. M. (Mila) Davids

Topics

The knowledge society

Circulation of knowledge

Innovation in a global context

History of technology

High-tech cluster Eindhoven

Courses

0EM170 Global Connections

0SAB0 USE base: Ethics and history of technology

Fields of expertise:

Knowledge transfer & intermediary actors, food systems & health in historical context, business history, Taiwanese developments, Innovation & Learning

TU/e

Dr. J.I. (Johanna) Höffken

Topics

Responsible innovations in and for the Global South

Responsible innovation at the crossroads of education and companies

Smart Grids in Europe and in India

(Theories of)

Responsible Innovation, participation, design approaches and business models in the Global South

Qualitative research methods

Courses

0SV00- Sustainable Development in a Global Context

0SEUD0, 0SSUI0, 0SAUG0 – Responsible Innovation for the World

0EM110 – Research Methodologies: Ethnography

0EM200 – International Development and Sustainability

TU/e

Dr.ir. A.F. (Arjan) Kirkels

Current interests:

•Sustainability assessment, critical assessment, responsible innovation

•Linking industrial ecology & transitions
Linking industrial ecology & business models

•New energy carriers, energy storage
(metal fuels, etc)

•Circular economy

5LEF0   System Integration Project (MCA) (core)
0EM310 From industrial ecology to cradle to cradle
             (specialisation)

Fields of expertise:

• Renewable Energy   • Sustainability / industrial ecology

•Technology assessment / feasibility studies : fact based, value driven

• Mixed methods • Action research: stakeholder approaches

• Framing, expectations, debate, discourse analysis

TU/e

dr. E. (Elena) Mas-Tur

Topics

Measuring innovation with patents and patent citations

Diffusion of knowledge and innovations

Collaborative knowledge creation

Science quality and questionable research practices

Courses:

0EM110 Research Methodlogy

0EM160 Intellectual property rights

0SV30 Economics of innovation: introduction

USE learning line Patents and standards (0SSUC0, 0SAUC0)

USE learning line Information sciences, technology and society (3UAU0)

Prof.dr. R. (Ruth) Oldenziel

Position: Editor-in-Chief *Technology & Culture*

Topics

American and European History

History of Technology

Gender and Technology

User Perspective of Technology

Sustainable Urban Mobility in Global Context (Cycling, Pedestrianism, and Public Transit)

Courses

0EM170 Global Connections

0EM82 Knowledge infrastructures in a globalizing world

Dr Georgios Papachristos

<u>Topics:</u>

Sociotechnical transitions theory & case application:

- niche development dynamics

- sustainable energy & mobility

Strategic management: Innovation ecosystems & business models

Technology platforms competition & diffusion

Application of system dynamics modelling & simulation

<u>Courses:</u>

- 0SV50 Managing Sustainable Technology–OGO

- 0SV80 Sustainable technology in society: advanced

- OSV100 Economics of Innovation: advanced

- 0EM100 Evolutionary Foundations of Innovation Science

TU/e

Dr. E. (Emilio) Raiteri

Topics

Economics of Innovation and Intellectual Property

Innovation policy with a focus on Public Procurement for Innovation

Knowledge diffusion through patents

Courses:

0ZK00 Intellectual property rights for new ventures

0SV60 Economic policy

TU/e

dr. H.A. (Henny) Romijn

Interests:
- Social, economic & environmental sustainability of development projects in de Global South, mainly related to renewable energy and sanitation
- Learning / capacity building for sustainable development
- Upscaling/replication of sustainable development initiatives
- Innovative delivery models ("business models") suitable for poor countries
- (Social) entrepreneurship in the Global South

Courses:

0EM140 Energy, Economy and Society

0EM200 International Development and Sustainability

Fields of expertise:

Development studies; development economics; sustainability transition processes in developing countries; techno-economic feasibility studies.

TU/e

dr. B.M. (Bert) Sadowski

Topics

Economics of innovation, Business Model Innovation

Digital markets, Internet of Things, Blockchain

Data analysis with R and Python

Courses

3UEU0 Communications and Computing

0EM190 Infonomics

3UAU0 Information Technologies of the Future

0SV70 Evaluating economic policy: social cost benefit analysis

TU/e

Prof.dr.ir. Erik van der Vleuten

CURRENT RESEARCH INTERESTS

- Connected sustainability transitions across the global North-South divide

- Historical sustainable innovation and transition studies

OLDER RESEARCH THEMES

- Technology & European integration/fragmentation

- Engineers & Societal Challenges in long-term perspective

- Infrastructure & socio-ecological change

COURSES

0EM130 Modern Societies in Transition: Introduction to Historical Transition Studies
0SV80 Sustainable technology in society: advanced
0SAB0 USE basic: ethics and history of technology

TU/e

dr. ir. F.C.A. (Frank) Veraart

Topics:

Long-term perspectives on:

Monitoring sustainability

Resource chain and sustainability development

Sustainability trade-offs of raw material imports

Transitions in urban mobility

Sustainability in land use policies

Courses

0SAB0 USE basic: Ethics and history of technology

0SV10 Technology in society: introduction

TU/e

dr. ir. A.J. (Anna) Wieczorek

EXPERTISE AND ONGOING ACTIVITIES IN THE FOLLOWING 3 AREAS:

1. **Energy transitions with particular attention to**:
- new actors, new roles, business models, engagement, power relations: energy communities, aggregators, smart prosumers, DSOs, TSOs
- institutional aspects including regulatory and market change, market arrangements and incentives
- technological advances incl. ICT platforms and their role in a new organisation of the energy system, smart grids
- (demand side) flexibility potential of DER
- upscaling and replication in the context of deep transitions
- decentralised energy futures

Project related to this topic: cVPP: https://research.tue.nl/en/projects/cvpp-community-based-virtual-power-plant

2. <u>**Organising learning and knowledge for regional energy transition, including:**</u>
- living labs, digital twins
- multilevel governance
- transformative capacity
- knowledge and learning dynamics in transitions
- regional aspects of transitions, RES

Project related to this topic: ORAKLE: https://research.tue.nl/en/projects/organising-knowledge-and-learning-for-the-regional-energy-transit

3<u>**. Sustainable University and specifically:**</u>
- making TU/e's research, education, campus and governance sustainable
- interactive visioning an backcasting
- sustainability assessment of initiatives
- exploring role of universities as change agents in a broader transition to sustainability
- narratives development
- SDGs

Project related to this topic: #SustainableTU/e, no website yet :)

TU/e