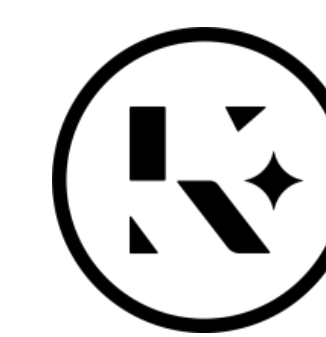
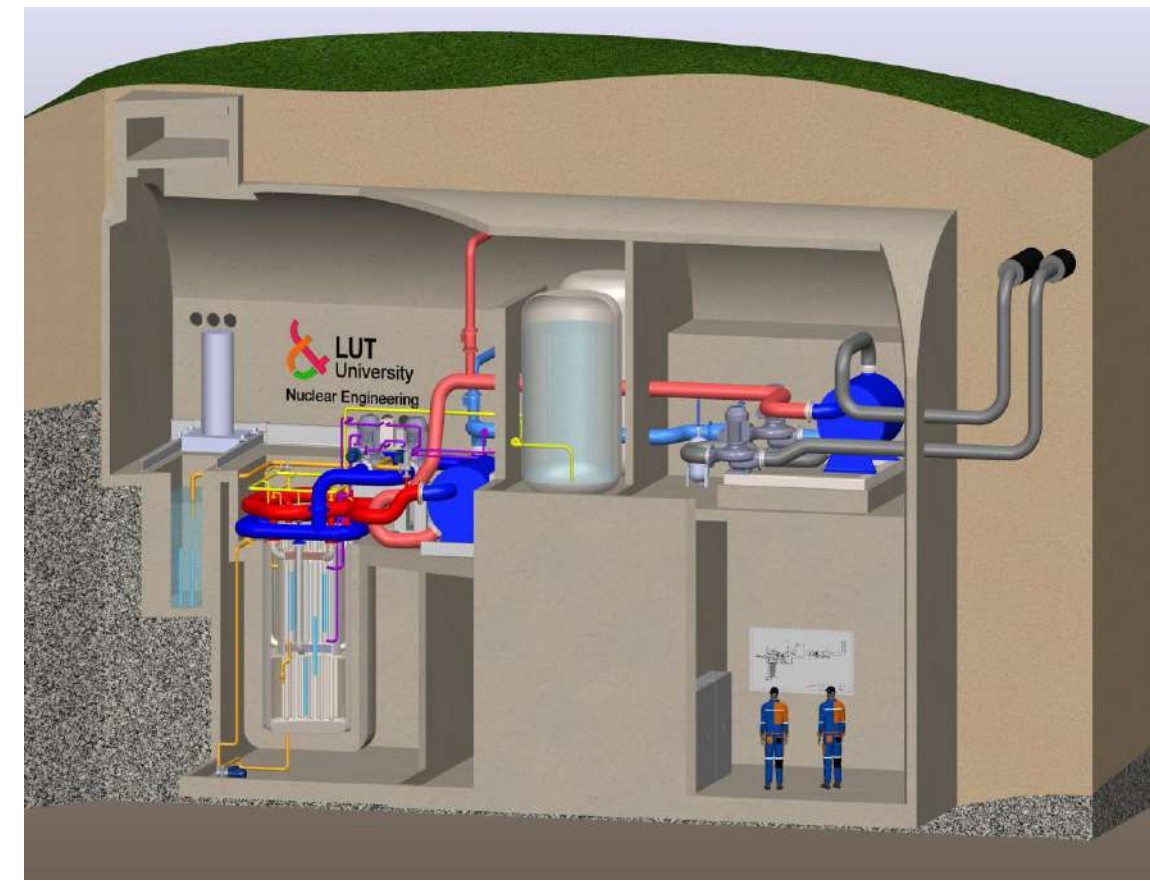


Communities of Promise Concerning Energy Futures in Social Science Research on Energy



KONEEN SÄÄTIÖ
KONE FOUNDATION



PROMISES

www.upf.edu/web/promises

Hanna-Mari Husu, LUT University

hanna-mari.husu@lut.fi

Markku Lehtonen, Universitat Pompeu Fabra

Matti Kojo, LUT University

Tapio Litmanen, University of Jyväskylä

Introducing our PROMISES-project:

‘The making of sustainability transitions with (false?) expectations: Critical analysis of historical and current promises of nuclear technology

- We explore how techno-scientific promises and expectations shape the trajectories of modern societies
- Interested in nuclear sector promises (the Small Modular Reactors, SMRs)
- Promises draw their power from epistemic communities and socio-technical assemblages
- Epistemic communities = loose networks of experts and professionals united by shared norms, causal assumptions, convictions concerning reliable ways of acquiring knowledge, and a shared policy enterprise (Haas 1992)
- Case study in five countries (Canada, Finland, France, Sweden, UK)

Future-oriented concepts in science and technology studies (STS) (literature review = 58 articles):

Sociological expectations^{1,2}

- Generative and performative;
- “Statements that do something”
- Provide structure
- Legitimise
- Attract interest and foster investment
- Mobilise resources

Techno-scientific promises³

- Identified as devices or apparatus
- Created by technology promoters
- Creates and coordinates expectations of actors
- Aims to establish path creation
- Aims to techno-scientific transformations

¹ Borup et al. 2006,

² van Lente 2012

³ Joly & Le Renard 2021

⁴ Jasanoff & Kim 2009, 2015

LUT SMR-picture by Teemu Leinonen

Sociotechnical imaginaries⁴

- Visions of desirable futures
- Collectively held,
- Institutionally stabilised,
- Publicly performed
- Interested in (shared) norms, discourses, and cultural meanings in science and technology rather than only in policy

All share:

- Materialisation of new sciences and technologies
- “Real-time representations of future”
- Draw attention to power
- Future visions can determine the future and exclude alternative visions and solutions
- Contexts: energy smart technologies, vehicles, bioenergy, nuclear, carbon neutrality etc.

Differences:

- Analyses of techno-scientific promises and sociological expectations have tended to adopt actor-orientated, regime-level, or institutionalist approaches
- Sociological expectations fall between techno-scientific promises and sociotechnical imaginaries
- The concept of sociotechnical imaginaries aims to produce the social, cultural, and political understanding of ‘future’-making’
- most popular
- tends to adopt constructionist approach
- more recently, also used for analysing and explaining local visions and counter-imaginaries