

# Responsible energy transition (?)

Kjetil Rommetveit,

Senter for vitenskapsteori

[kjetil.rommetveit@svt.uib.no](mailto:kjetil.rommetveit@svt.uib.no)

# Responsibility?



Regjeringen.no

Tema ▾

Dokument ▾

Aktuelt ▾

Dep:

Du er her: [Forsiden](#) • [Dokument](#) • [NOU-er](#) • [NOU 2014: 10](#)

## NOU 2014: 10

Skyldevne, sakkyndighet og samfunnsvern



Forrige  
kapittel

Del 2  
Skyldevne

# ‘Responsible Research and Innovation’ (RRI) / Responsible Innovation

- Technology assessment
- ELSA studies (Ethical Legal and Social Aspects)
- Ethics
- Public Engagements with Science and Technology
- Foresight studies
- Innovation studies
- ...

# Smart metering roll-out in the Netherlands

- Originally begun in the early 2000s
- 2008: Changes required to the Electricity Act, case went to Parliament
- Rejected, smart meters only implemented after another 4 years of legislative/political negotiation



- ‘This obviously constitutes an unacceptable violation of people's personal lives’ (Vrijbit)
- contrary to the European Convention on Human Rights (ECHR) (lawyers, Tilburg University)
- Opposed in Parliament, the media, and by data protection authorities
- (Result: Dutch citizens can opt out of smart metering developments)



Why was this ‘irresponsible innovation’?  
(Hoehnkamp 2011, von Schomberg 2013, van der  
Hoven 2013)

- The regulations and standards were made by technical expertise only
- The concerned parties were not consulted beforehand, but were simply expected to play along (under threat of fine and jail)
- The privacy implications were not properly assessed in advance
- They should have implemented ‘privacy by design’

Responsible Innovation: a process view of *actors coming together in addressing societal challenges* (von Schomberg 2013, Owen et al. 2013)

- *Anticipatory*: address societal, ethical and legal issues in as early stages as possible (cf. Collingridge dilemma)
- *Reflexivity*: exposing variously implied parties to each others' views and interests
- *Deliberative*: discuss options and outcomes
- *Responsiveness*: becoming responsive, making responsibility

# Emerging technologies and their impact on the society?



- Regulators
- Citizens
- Civil society organisations
- Media
- Politicians
- Lawyers
- Technology developers
- Industry
- ...



# COMMISSION RECOMMENDATION of 9 March 2012 on preparations for the roll-out of smart metering systems

*Smart grids mark a new development on the path towards **greater consumer empowerment**, greater **integration of renewable energy** sources into the grid and **higher energy efficiency** and make a considerable contribution to **reducing greenhouse gas emissions** and to **job creation** and **technological development** in the Union*

# COMMISSION RECOMMENDATION of 9 March 2012 on preparations for the roll-out of smart metering systems



Smart grids mark a new development on the path towards **greater consumer empowerment**, greater **integration of renewable energy sources** into the grid and **higher energy efficiency** and make a considerable contribution to **reducing greenhouse gas emissions** and to **job creation** and **technological development** in the Union



**Accelerating Growth in Technology**

(condensed)



- Regulators
- Citizens
- Civil society organisations
- Media
- Politicians
- Lawyers
- Technology developers
- Industry
- ...



# ‘Responsibility’:

- is *not* (in this case) a matter of individual action;
- is *not* a simple relation between ‘society’ and ‘technology’
- *is* a matter of complex relations and negotiations between variously implied actors (Rommetveit et al 2017)
- *is* a matter of certain qualities (anticipation, reflexivity, responsiveness and deliberation; themselves poorly defined)
- should (ideally) arise from a well considered process that tries to take into account societal issues (significantly legitimacy and acceptability in the face of users and communities) in early stages of development

# Problems:

- The competing and frequently incommensurate values and interests of the different groups involved in the making of infrastructure are frequently under-communicated. Main developments are predicated on simplistic (techno-fix) imaginations (cf. smart grid recommendation)
- Competing visions: Who gets to frame the basic visions of social and technological development? Whose values and interests are at stake? Has this been spelled out? All voices heard? What would it take to implement them all?
- The Dutch case and the literature on renewables technologies (Wolsink 2012): renewables have more legitimacy when embedded within a community structure, and where the members/users have a saying in the matter. How can users and local communities be brought into renewables projects?
- Anticipatory governance: How do we know about societal concerns and risks before they arise?



# Thank you!

## (and some references)

- Hoenkamp R, Huitema GB, de Moor-van Vugt AJC. 2011. The neglected consumer: the case of the smart meter rollout in the Netherlands. *RELP* 4, 269–82.
- Owen, R. P, McNaghten, J, Stilgoe (2012), 'Responsible research and innovation: From science in society to science for society, with society'. *Science and Public Policy*, 39 (6): 751-760.
- Rommetveit, K., van Dijk, N., Gunnarsdottir, K., O'Riordan, K., Gutwirth, S., Strand, R., Wynne, B. (2017) 'Working responsibly across boundaries? Some practical and theoretical lessons'. In: von Schomberg, R. (Ed.), *Handbook of Responsible Innovation*. Edward Elgar Publishing Ltd.
- van den Hoven (2013) 'Value Sensitive Design and Responsible Innovation'. In: Owen, R., J. Bessant, M. Heintz (2013), 'Responsible innovation. Managing the responsible emergence of science and innovation in society'. Chichester: John Wiley & Sons, pp. 51-75.
- von Schomberg, R. (2013) A Vision of Responsible Research and Innovation. In: Owen, R., J. Bessant, M. Heintz (2013), 'Responsible innovation. Managing the responsible emergence of science and innovation in society'. Chichester: John Wiley & Sons, pp. 51-75.
- Wolsink, M. (2012) The research agenda on social acceptance of distributed generation in smart grids: Renewable as common pool resources. *Renewable and Sustainable Energy Reviews* 16 (2012) 822– 835