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# Developing knowledge and strategies for enabling and governing transitions to a low carbon society

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Most of the research on low carbon society in Denmark has hitherto focused on developing scenarios and analyzing possible policy instruments, including market mechanisms, costs and impacts in relation to known options and impacts. The Danish Council of Strategic Research funds the four year research alliance "Enabling and governing transitions to a low carbon society" during 2010-2013. The aim of this alliance is to conceptualize the dynamics of transition processes towards a low carbon society by involving the diverse set of actors from consumers to governmental agencies, companies and organizations.

Transition of the path-dependent, socio-technical regimes in the energy system is a governance challenge, since transitions need to occur simultaneously in different arenas without necessarily having a specific 'centre' of co-ordination. Changes of regimes require innovative breakthroughs in technology, changes of institutional frames and changes in social practices, but also increased utilisation of well known solutions is important. The research alliance focuses in a number of inter-linked projects on five overall transition arenas in society: standards and certifications, households, companies, cities, and national and international policy. Theoretically the research alliance builds upon a combination of theories including social practice theory, innovation economy, institutional theory, actor-network theory and governance theory. Through a combination of historical analysis, case studies and action research, the research alliance analyses the roles of socio-technical experiments, creation and utilisation of 'windows of opportunity' and stabilisation of changes in societal niches into regime transformation.

The results of the alliance will comprise of:

- Methods which enable stakeholders to make continuous adjustments of objectives and means in unavoidably conflict ridden transition processes.
- Analyses of how key measures and institutions at different societal levels might contribute to transition processes.
- Characterisation of 4-6 typical sustainable transition set-ups as complex contexts, which are identifiable to actors in similar situations.

### Keywords:

Sustainable transition, governance, low carbon society, socio-technical experiments

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