

## Dialogue Sessions

### [B02] An institutional perspective on sustainability transition

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**Format:** Panel discussion followed by open discussion (panelists are: Lea Fuenfschilling, Frank Geels, Rob Raven)

**Rationale of the session:** STRN is in the process of designing a new research agenda. Some scholars (Lea Fuenfschilling, Rob Raven, Bernhard Truffer, Marko Hekkert and Koen Frenken) have recently proposed to include a more explicit focus on institutional theory. In this session, we would like to present this approach and debate the merits and potential challenges associated with taking an institutional perspective on sustainability transitions.

Institutions and institutional change are often considered a critical aspect of sustainability transitions studies and their relevance have been explored in various contributions (e.g. Geels, 2004; Fuenfschilling and Truffer, 2014; Jolly and Raven, 2015, 2016; Wirth et al., 2013; Smink et al., 2015a). Institutional analysis, however, remains somewhat fragmentally explored within the STRN community – the 2010 mission statement discussion of institutions is scattered across the current six research themes. We believe that an agenda that draws in particular on *new institutionalism*, can result in more fine-grained and systematic analysis of institutions and institutional change in the context of challenge-led transitions (vice versa, transitions theory can bring a more material and challenge-led perspective to neo-institutional theory). As such, we propose that institutional perspectives on sustainability transitions may become a theme on its own and fruitfully bring together the STRN community concerned with institutions and develop new bridges to neo-institutional scholars interested in challenge-led innovation.

New institutionalism has become one of the leading theories in organization and management studies and is often referenced as the 'dominant approach to understanding organizations' (Greenwood et al. 2008). Institutional theory first and foremost addresses questions of organizational behavior as well as field-level change by referring to overarching regulative, normative and cultural-cognitive institutional settings. Concepts such as legitimacy, institutional pressures, organizational fields, collective institutional entrepreneurship, institutional work, field-configuring events or isomorphism are central in describing actors' behavior and development of specific industries.

Institutional theory offers many theoretical insights that can be considered crucial for understanding sustainability transitions (Fuenfschilling and Truffer 2014/2016), which is why a closer collaboration with this scholarly community might enrich transition research. Transitions are generally conceptualized as radical, long-term, socio-technical transformations. Due to the co-evolution of institutions and technologies into stable and rigid socio-technical regimes, innovation and change are usually assumed to be incremental and path-dependent. At the beginning, concepts such as technological paradigms and trajectories, organizational routines or path-dependency took center stage to explain why technological innovation develops incrementally along a specific path (Dosi, 1982; Nelson and Winter, 1982; Rip and Kemp, 1998).

These notions have later been complemented with insights from institutional theory, including a more fine-grained analysis of structures as regulative, normative and cognitive institutions or institutional logics (Geels, 2004; Fuenfschilling and Truffer 2014). Accordingly, sustainability transitions can be conceptualized as institutional change, since they involve the dismantling or de-institutionalization of existing structures (i.e. of the socio-technical regime) as well as the buildup or institutionalization of a new socio-technical configuration (i.e. of a niche), which at some point might be able to replace the old system. Sustainability transitions have therefore been characterized as processes of institutional change with a particular awareness for technologies and materiality (Fuenfschilling and Truffer, 2014). However, the incorporation of institutional theory into transition thinking is still in its infancy and should therefore be further explored. Institutional theory has great potential to contribute to the understanding of sustainability transitions, particularly regarding the following aspects:

- **Conceptualization of structures and structuration:** Institutional theory provides a vast repertoire of concepts and theories to understand to what degree social structures are institutionalized, how they interrelate and how they exert their influence on actors' behavior and cognition and the diffusion of practices. This is particularly relevant concerning the conceptualization of socio-technical regimes. Literature in the realm of institutional pressures (coercive/normative/mimetic pressures as e.g. described by Scott 1995), institutional logics (Thornton/Ocasio 2008) or degree of institutionalization/structuration (e.g. Barley/Tolbert 1997) is thereby especially insightful (see Fuenfschilling and Truffer 2014).
- **Conceptualizing institutional change:** While initially focusing on explaining stability and persistence, institutional theory now offers various ways to conceptualize institutional change. Since sustainability transitions are interpreted as deep-structural changes, these insights are crucial to advance the understanding of how and why radical change unfolds. The various strands of institutional theory address different sources of institutional change, including both, structural and agentic as well as exogenous and endogenous explanations. These include notions such as institutional complexity and structural overlap (e.g. Thornton/Ocasio 2012, Greenwood et al. 2011; Kraatz and Block 2008), processes of social construction such as (collective) institutional entrepreneurship and work (Battilana et al. 2009; Lawrence and Suddaby 2006) or institutional layering (Streeck and Thelen 2005).

- **Conceptualization of actors and embedded agency:** Institutional theory provides a diverse range of concepts to address the paradox of embedded agency and discusses the role of specific actor types in processes of institutional change. Amongst the most common concepts are institutional entrepreneurship (e.g. Battilana et al. 2009) and institutional work (e.g. Lawrence and Suddaby 2006), which offer a range of insights into how actors more or less purposefully shape their institutional environment and thereby contribute to change. But also the more traditional notion of certain actors acting as 'generalized others' with high definitional authority gives indication regarding which actors are most likely to be able to shape the rules of the game (e.g. Meyer and Jepperson 2000).
- **New research questions and methodologies:** The past decades have generated a vast collection of empirical studies investigating institutional research questions. These could lead to new research questions for transition studies that are based on qualitative and quantitative methods, including discourse analysis, quantitative longitudinal studies or even experiments. New institutional research questions, for example could relate to how incumbents attempt to resist or support transitional change (e.g. Smink et al., 2015b; Penna and Geels, 2015), or hone in the role of social movements and social innovation in relation to institutional change, or the role of institutional change through business model innovation (e.g. Bolton and Hannon, 2016). Furthermore, it could be investigated how actor constellations (e.g. in the form of networks) and institutional rationalities (e.g. regimes) co-evolve over time or how institutional complexity in the form of regime semi-coherence can lead to deep-structural changes.
- **Interaction of actors, materiality and institutions:** In general, institutional theory provides a range of theoretical concepts that allow for a better conceptualization of how actors, institutions and materiality interact and how their interaction leads to change over time. These insights can help to advance the conceptualization of sustainability transitions by complementing current perspectives such as the MLP or TIS approaches and improve the theoretical rigor.

#### Participants:

**Lea Fuenfschilling** is a postdoctoral researcher at CIRCLE, Lund University as well as a lecturer at the Department of Sociology, University of Lucerne. She holds a PhD in Sociology from the University of Basel. She is part of the steering group of Sustainability Transitions Research Network (STRN). Her current research interests are centered on understanding the dynamics of socio-technical change and innovation by focusing on different aspects of institutions, actors and technology as well as their interrelatedness. Special attention is thereby devoted to the process of institutionalization of new, potentially more sustainable socio-technical configurations.

**Frank Geels** is Professor of System Innovation and Sustainability at the Sustainable Consumption Institute, which is an inter-departmental institute at The University of Manchester. Geels is chairman of the international Sustainability Transitions Research Network ([www.transitionsnetwork.org](http://www.transitionsnetwork.org)), and one of the world-leading scholars on socio-technical transitions, which entail co-evolutionary interactions between technology, consumer practices, firms, markets, policy, cultural meaning, and infrastructure.

**Rob Raven** is designated chair in the UU strategic theme Institutions and full professor 'Institutions and Societal Transitions' at the Innovation studies department of Utrecht University. His interest is in sustainability transitions and socio-technical innovation. Raven made major contributions to multi-level theories of transformative change, the notion of socio-technical experimentation and to the governance perspective of strategic niche management. His empirical work has covered energy and mobility transition processes in both Europe and Asia. He published over 40 scientific articles on these topics and was editor of special issues in *Research Policy*, *Technological Forecasting & Social Change* and *Environmental Innovation and Societal Transitions*. He won the EASST Chris Freeman award for a significant collective contribution to the interaction of science and technology studies with the study of innovation. His current research agenda is focused on analysis of transformative change in urban context such as eco-cities and smart cities. A key question is how socio-technical experimentation, institutional change and path-dependent urban regimes co-produce the future of cities world-wide.