

October 2014



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# WORKING PAPER

## Studying sustainability transitions in welfare states

A research agenda for Japan and the Netherlands

While traditional welfare states 'retreat', raising fundamental questions about social equity and actors' responsibilities, pressing sustainability problems remain unaddressed. In the course of a joint seminar, some 20 scholars from the Netherlands and Japan exchanged experiences and insights on studying welfare states from a transitions perspective. This resulted in a joint research agenda that introduces three entry points for researching sustainability transitions in/of welfare states: demystifying 'context', the role(s) of agency, and dynamics of and in welfare states.

### Key words

Sustainability transitions; welfare states; agency; context; governance

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**Title:**

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**Acknowledgements:**

This working paper is the result of the joint seminar 'Studying sustainability transitions in welfare states' of transition researchers from Japan and the Netherlands. The seminar was funded by NWO and JSPS and hosted by DRIFT in Rotterdam in September 2014.



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## Introduction: Sustainability transitions in welfare states

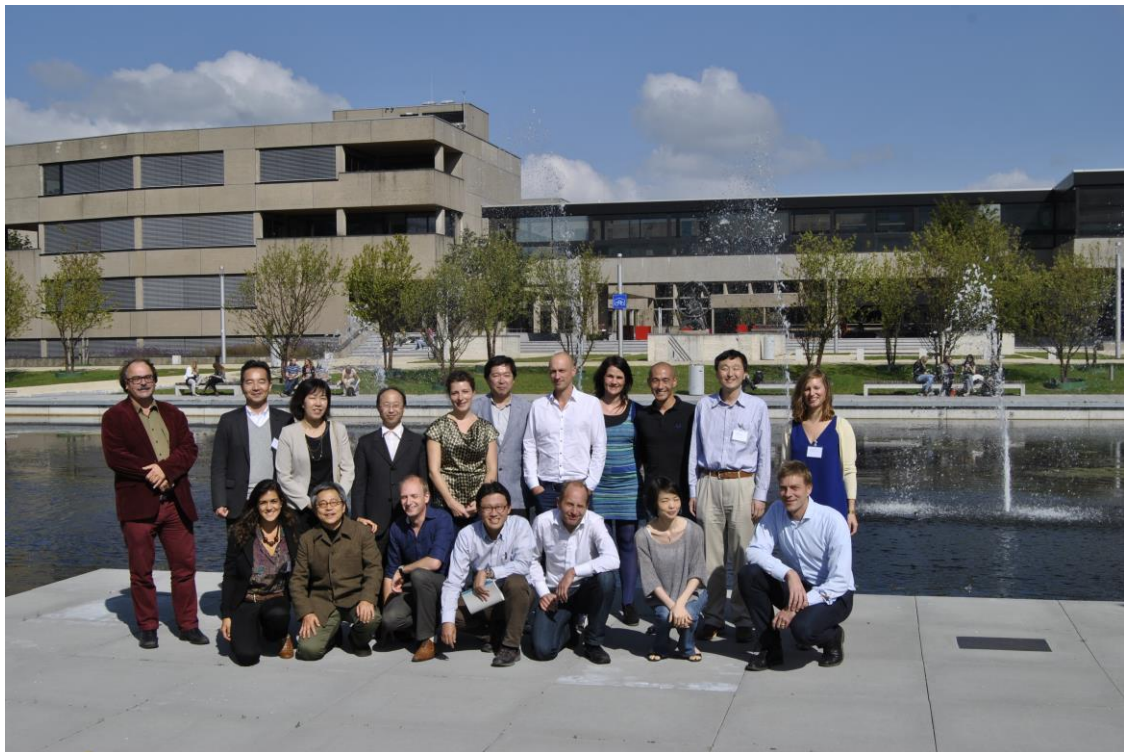
This research agenda starts from the recognition that our welfare state based systems are changing. Along with Oosterlynck et al. (2013b) we understand welfare states as “democratic capitalist societies that are characterised by social citizenship and legally guaranteed welfare provisions. In welfare states, the state takes up an important role in welfare provision, next to the family, the market and/or civil society.” The welfare state takes care of the public provisioning not only of cash transfers but also of different kinds of social services such as housing, education and health. This way of organising social service provisions not only subscribes the state a key role in the protection and promotion of the economic and social well-being of citizens, but is also based upon the principles of equality of opportunity, equitable distribution of wealth through redistribution, public responsibility and solidarity – despite diverging welfare state typologies (Ferragina and Seeleib-Kaiser 2011).

Loorbach (2014) regards the rise of the welfare state as part of the Great Transformation. Since the Industrial Revolution, three drivers of modernity have coincided and pushed the Great Transformation as a family of transitions: centralisation (central planning and control paradigm), fossil dependency (abundant fossil fuels and resources), and optimisation of innovation processes (linear models of innovation, knowledge production and diffusion). These transitions have increased welfare and were based on economic growth, thus building the foundations of the ‘welfare state’.

The rise of welfare states was based on the fundamental assumption that a sustainable society is one that alleviates (and if possible eliminates) poverty and aside this deals with environmental problems as they arise. The primary focus on poverty as the root of unsustainability and societal unease is a dominant managerial discourse that comes with the implied solution that economic growth is the means to achieve poverty alleviation and eventually sustainability (Adger and Jordan 2009; Dobson 1998). With this as a fundamental assumption, the exploitation of fossil fuels enabled and triggered technological advances (e.g. in food production) and scientific discovery (e.g. in medicine) and was coupled with economic growth. The welfare state is the product of this coupling.

However, since the mid-1970s, most OECD countries, traditionally regarded as welfare states, have experienced declining economic growth and rising unemployment, accompanied by high inflation and escalating public debt. Simultaneously, western lifestyle patterns are increasingly unsustainable, the welfare state retreats and public service provision erodes and becomes gradually privatised (Razin and Sadka 2005; Diamond and Lodge 2013; Oosterlynck et al. 2013a). The financial crisis in 2008 has significantly propelled this trend, shifting the focus of many countries’ welfare systems towards reducing expenses on welfare services (Vis et al. 2011; Avelino et al. 2014). However, fundamental sustainability questions remain unaddressed, such as: How do we sustain, and enhance, societal welfare, social cohesion, equality of opportunity and equitable distribution of wealth considering current demographic trends and environmental pressures, which put welfare states under high financial pressures? Can production and consumption patterns incorporate not only the immediate resource use and climate change footprint but also the tele-connected impact they pose to global ecosystems (Unruh 2000; Grin et al. 2011; Seto et al. 2012)?

In a joint JSPS-NWO seminar, some 20 scholars from Japan and the Netherlands focused on welfare states from a transition perspective. Both countries are traditional welfare states and the shared empirical foci were an ageing society and equal access to health care (Grin 2014; Hotta 2014; Shiroyama et al. 2014; Ohta 2014), sustainable energy provision and use (Kajiki 2014; Mori 2014; Yamaguchi 2014; Cuppen et al. 2014), sustainable agriculture (Bos et al. 2014; Beers and Hermans 2014) as well as sustainability concerns at the local level (Wittmayer et al. 2014; Hölscher et al. 2014a, Matsuura 2014). Across these empirical foci and including some more analytical review contributions (Frantzeskaki et al. 2014; Yarime 2014; Shiroyama et al. 2014, Sengers et al. 2014), we explored four processes that are part and parcel of transitions, namely: power shifting, experimenting & learning, interscaling and steering & navigating in current Japan and the Netherlands. Based on this analysis, three entry points for further research have been discussed: the dynamics in welfare states, the context of the welfare state and the role of agency in influencing these. This research agenda is the shared output of this seminar and highlights the need for not taking 'the welfare state' as a black box or lauder a context that is kept as a static variable in transition research but rather for unravelling the welfare state by looking at agency, context and dynamics. An overview of the contributors to the seminar as well as to this research agenda can be found in Annex 1.

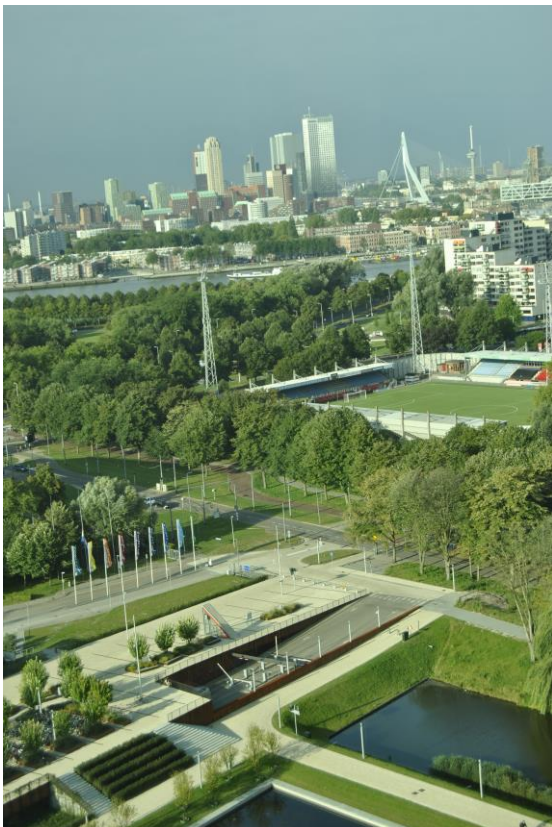




## Transition processes in Japan and the Netherlands

The contributions to the seminar are discussed along four processes which are part of transition dynamics, namely: 1) power shifting, 2) experimenting & learning, 3) interscaling and 4) steering & navigating. The choice for these processes is based on an inductive clustering of the contributions. Two of these processes have a long-standing tradition in the field of transition studies: steering & navigating transitions as well as experimenting & learning. The other two processes and the accompanying debates have been regarded as blind spot in mainstream transition scholarship. On the one hand, there is the question of power, politics and agency. By focusing on power shifting, we aim to question possible shifts in power relations as a consequence of changes in welfare states. On the other hand, we focus on interscaling, a notion which expands the multilevel perspective and relates to the work of transition scholars focusing on 'geography of transitions'. Each workshop paper questions, addresses or analyses at least one of these processes leading to new empirical or theoretical contributions.

In the following, we first outline each of these processes in terms of the main insights from the paper presentations and the main points of discussion. We then turn to the research agenda in the next section.





## 1. Power Shifting

Power shifts denote a central element in transition studies, most notably between regime and niche actors. Beyond this MLP-understanding, power shifts more broadly refer to shifts in power relations between actors, in institutions, policies, values and discourses. As such power shifts can be understood in terms of actors, discourses or policies having more/less power, having power over one another or as exercising different kinds of power (Avelino 2009; 2011). Studying the underlying mechanisms of such shifts is relevant to improve an understanding of transition dynamics and the advancement of (desired) shifts. With a focus on these processes, we build upon a growing strand of thought in transition studies that addresses the issue of power (Avelino 2011; Hoffman 2013; Avelino and Rotmans 2011; Brown et al. 2013; Geels 2014).

Four of the workshop contributions, were (implicitly) dealing with questions of power shifting. Mori's (2014) contribution is a classic multi-level analysis of the Japanese energy transition. It focuses on the interactions of landscape developments with vested interests at regime level and outlines accompanying governance challenges. Zooming in on the niche level of one specific socio-technical innovation in this domain, Kajiki (2014) outlines actor networks and strategies pertaining to the historical emergence and dissemination of electric vehicles and PHVs. The paper is a detailed description of the policy goals with regard to EV and PHV, and of which actors felt compelled to take measures (or not). Focusing less on the production and more on the consumption side in the energy sector, Yamaguchi (2014) presents a historical review of socio-technical factors determining energy consumption in the Japanese residential sectors starting in 1900 until today. The focus of the paper is on the determinants of residential energy consumption and their implications for energy management. None of the three papers explicitly refers to shifting power relations; nonetheless this is a pertinent question for historical analysis such as these. Is what we are analysing a transition, in which power relations have shifted? Or is it a socio-technical innovation which constitutes a new practice with certain new structural elements but which actually reinforces existing power structures? By bringing in household practices, Yamaguchi (2014) shows how deeply engrained in our socio-cultural context certain practices are and how difficult these are to change. As such power shifts do not only need to occur between actors, rather it is also interesting to look at the shift in dominance of certain practices and their relations to socio-technical innovations. How our practices are mediated by socio-technical innovations was the focus of the contribution by Grin (2014) who has a more specific focus on empowerment in transitions in Dutch healthcare. In his contribution, Grin (2014) analyses the role of socio-technical innovations such as home automation on the agency and empowerment of patients in health care settings. Building upon this empowerment, he also outlines the changing roles of actors in health care innovations, e.g. nurses, doctors, patients.

Looking at the energy system in Japan, the influence of socio-economic conditions such as demography or globalisation as well as ecological shocks such as Tsunamis and earthquakes is evident. There are niche developments, which are interestingly very much promoted by the government, such as mobile batteries and lightweight vehicle standards, but these are

predominantly technological. The studies mapped the multitude of actors engaged in the energy system, from government, to businesses, to individual households, but also underlined the need for more elaborate and in-depth analyses. The mapping brings to the fore the hierarchy and rigidity of formal policy making processes and the power of vested interests. For example, it seems that energy innovation policy in Japan is dominated by technological innovation policy while connections to local social innovation niches are only slowly developing (e.g. Hotta 2014). It is nevertheless noteworthy that the government acted as main innovating body, which raises interesting questions about power and power shifts in terms of the means employed to constrain and enable bottom-up innovations. Furthermore, especially the focus on different kind of actors (e.g. households) and their practices and what these can teach us about levers for change but also about path dependency is a new empirical research field in Japan. The interesting question remains here whether these landscape and niche developments have actually led or will lead to transformative change.



## 2. Experimenting and learning

Experimentation and learning are central aspects of transition studies and represent key tenets for thinking about societal change. Experimentation in particular links to innovation, with transitions literature arguing that experiments harbour potential seeds of change, which need to be put into practice, reflected upon and learnt from. As such the concept of experiment is closely related to learning. Learning is an essential (while under conceptualised) aspect in transitions literature through which to deal with societal uncertainty and complexity: essentially transitions are understood as processes of social learning-by-doing and doing-by-learning. In terms of transition governance, experimentation and learning need to be fostered in such a way that they help to guide and accelerate processes of societal transition. Space for experimentation and learning allows imagining and putting in action new ideas and perspectives, practices and behaviours as well as social roles and relations. As such it might help to develop a shared deeper understanding of the needs and possibilities for fundamental systemic change.

Sengers et al. (2014) provide an excellent literature review of the role of experiments in sustainability transitions literature. The authors establish a typology of different kinds of experiments and trends in literature, on the basis of which they put forth a number of topics for future research. In terms of trends they see a broadening from formal, state-driven experiments to also include decentralised and civic forms of experimentation, an inclusion not only of developed Western context but also economies in the global South, as well as a focus on urban next to national contexts. Other aspects include the broadening from single case studies to database approaches and from experiments in specific local contexts to networked experiments across multiple scales. The contribution by Mizuguchi et al. (2014) is clearly an example of the latter. It focuses on the 'welfare mall', a physical welfare centre, in a middle-sized Japanese city where innovations in different sectors (food, energy and health care) come together. Next to the physical place, which is the visible integration of different niches, the analysis shows how this experiment constitutes an integration of niche activities and regime policies from these different sectors. The third contribution by Beers and Hermans (2014) focuses on learning aspects and opened with a critique on the rather naïve expectations with regard to learning in the transition community. It propagates a shift from a 'social learning' perspective to a focus on a 'negotiation of meaning' perspective which shifts attention from knowledge to meaning. It takes the multilevel-perspective, to locate learning at different levels: in single local niches, between niches, between niches and regimes, and in the process of niche-regime interactions.

This session reinforces the focus on experimentation as the way to change the system without having a clear direction in mind. This statement immediately puts the focus on the importance of politics, and the political economy of experimentation – rather than assuming a harmonious setting, experimentation is also about contestation, controversies, framings, politics and power. The focus on interaction between experiments and what this could mean in terms of transition dynamics are put on the agenda by all three contributions. Much of the research to date has been focusing on

experimentation as process and as 'solution'. During the discussion a more fine-tuned understanding of this governance strategy emerged: in which contexts is it suitable and in which not? Which cross-context dynamics can explain the 'success' or 'failure' of experiments?



### 3. Interscaling

Multi-scale and cross-scale interactions make up and influence sustainability transitions, including interactions between local, regional, national and global level as well as between individuals, families, and communities. Interscaling refers to the importance of (interactions at) different, interconnected, scales (societal, organisational, geographical). Such a focus on the interplay between multiple scales enables a more in-depth analysis of interdependencies, shifts in degrees of decision-making autonomy and/or power and in (re-) distribution of responsibilities across scales. It provides a new perspective on transition dynamics in that it clarifies opportunities and barriers across scales rather than across levels within one scale, which is the common focus in transitions literature. It builds upon recent writing, in particular with regard to the geography of transitions (Castán Broto and Bulkeley 2013; Coenen et al. 2012; Coenen and Truffer 2012), but also upon efforts to extend single regime and niche boundaries of the MLP (Papachristos et al., 2013; Smith et al., 2005; Raven and Verbong, 2007).

Three of the papers presented were directly concerned with decentralisation dynamics. Two focused on health care reforms leading to the decentralisation of service provisions in Japan and the Netherlands. Ohta (2014) shows how, in Higashi-Omi, Japan, in the context of adult social care reform, multi-level interactions between national and local levels led to the funding of innovative, small-sized multi-functional care facilities. On the one hand, this was required as responsibility shifted to local authorities. On the other, this budget scheme was enabled by open-minded civil servants in the national government who excavated channels to innovation and information by linking to local levels. Similarly, Hotta (2014) discusses potentials and requirements of the reorganisation of long-term care in the Netherlands and Japan which includes shifts towards community-based integrated care. This presumably enables more flexible, individual and higher quality care. With regard to the energy transition in Japan, Shiroyama et al. (2014) find that national and local coordination is indispensable for promoting renewable energy and energy efficiency. It enables local experimentation and corresponding national regulatory reforms and reduces technological and resource constraints. In addition to new national legislation for facilitating renewable energy (e.g. feed-in-tariff), local government undertakes experiments to expand the use of smart grids. All three analyses highlight opportunities from collaborations across scales in terms of innovations, discussions of trade-offs and restructuration of roles and responsibilities at different levels. However, local resource constraints need to be accounted for, for instance by new forms of on-going collaboration across levels, within and between communities and sectors.

Cuppen et al. (2014) provide a different view on interscaling processes. Starting from the recognition that conflict is central in transitions, they conduct a meta-analysis of public controversies between different actors in the Dutch shale gas debate. Conflict and controversies arise as choices are required that induce trade-offs between divergent values, interests and preferences. The authors illustrate how such conflicts play out and stimulate learning between different actors across different levels, in particular the (national) socio-political level and (local) opposition. This example clearly

shows the framing struggle in which actors at different levels participate. A shared question in all papers refers to the extent this interscaling indeed contributes to a transition or rather constitutes a transfer of responsibility from national to local levels only.



## 4. Steering and navigating

The governance perspective is a crucial element of transition studies. This cluster is concerned with the question of how sustainability transitions are or can be supported, fostered and, eventually, governed. As such it is concerned with normative-prescriptive governance frameworks as well as the analysis of existing processes or project implementations. Transition management (Loorbach 2010), as an example of a governance framework, can be used to analyse and evaluate existing developments and to unveil dynamics taking place when aiming to initiate and navigate transition processes. The latter may for instance relate to the necessary balancing between innovation and legitimacy, capacity building requirements or the broadening of transition initiatives (Grin 2012; Frantzeskaki et al. 2012; Meadowcroft 2009).

The presented papers differ much in the governance approaches they analyse as well as in the perspective they take. Wittmayer et al. (2014) and Frantzeskaki et al. (2014) conduct literature reviews, while the remaining contributions focus on empirical cases – on transition management (Hölscher et al. 2014a), Reflexive Interactive Design (Bos et al. 2014), a transition management inspired approach (Matsuura 2014) and stakeholder platforms (Yarime 2014). Wittmayer et al. (2014) compare two approaches that address (the governing of) sustainability at the local level: Local Agenda 21 and transition management. They derive several insights, including the need for an integrated perspective on and a flexible, participatory approach to sustainability. Frantzeskaki et al. (2014) review applications of transition management in literature. While illustrating the approach's contribution across scales and sectors, the analysis also points to a limited critical and constructive review of its tenets and conceptualisations. Moving to the empirical analyses, Hölscher et al. (2014a) explore to what extent (elements of) transition management implementations in four European cities (dis-)empowered the involved actors to take action for a sustainability transition. The analysis links process implementation (e.g. co-creative setting, group composition) with empowerment outcomes. Bos et al. (2014) evaluate an approach to sustainably redesign the Dutch livestock production sector, called Reflexive Interactive Design. In general, system innovations prove difficult to achieve in livestock production because of the numerous sustainability challenges, which vary, are interconnected and morally ambiguous. The approach created goal congruency, new networks and space for niches. Matsuura (2014) reflects on (failed) experimentation with participatory governance on a small Japanese island, revealing mismatches between context and process implementation. Yarime (2014) focuses on the design and implementation of stakeholder platforms for the management of phosphorus in the Netherlands and Japan, bringing together private companies, knowledge institutes, government authorities and NGOs for knowledge sharing.

The different analyses show that the involvement of a diverse set of actors stimulates knowledge exchange and collaboration as well as gives room for value-related conflicts. Governance processes in the context of transitions, should induce reflexivity, for instance supported by a systems analysis, and a co-creative process. This may stimulate ownership and the redefinition of roles and responsibilities between (public and private) actors as well as increase accountability. Yarime's

(2014) analysis additionally implies that not only diverse actors but also different (geographical) levels need to be involved in cross-scale issues like the management of phosphorous. As with the other presentations, the collaboration between different stakeholders ignites new networks and a pooling of (economic, knowledge etc.) resources. It is important that the approaches remain flexible and are re-evaluated in regular intervals. Many of the presenters found that reflexive governance approaches succeed in creating space for niches and innovation, and therefore for change and experimentation. A question is how to sustain, support and scale this innovative momentum. However, the extent to which the goal of radical change is achieved is hard to evaluate and requires short- and long-term monitoring and evaluation. Practice often seems to fall short of this ideal since single issue improvements often introduce new unwanted side effects and innovation faces institutional and regulative hurdles. While transition management proved to work in different sectors (e.g. mobility, agriculture, water), at different scales (national, regional, local) and in different countries, the implementation of any such governance approach needs to be tailored to a particular context to account for specific particularities, challenges and opportunities.

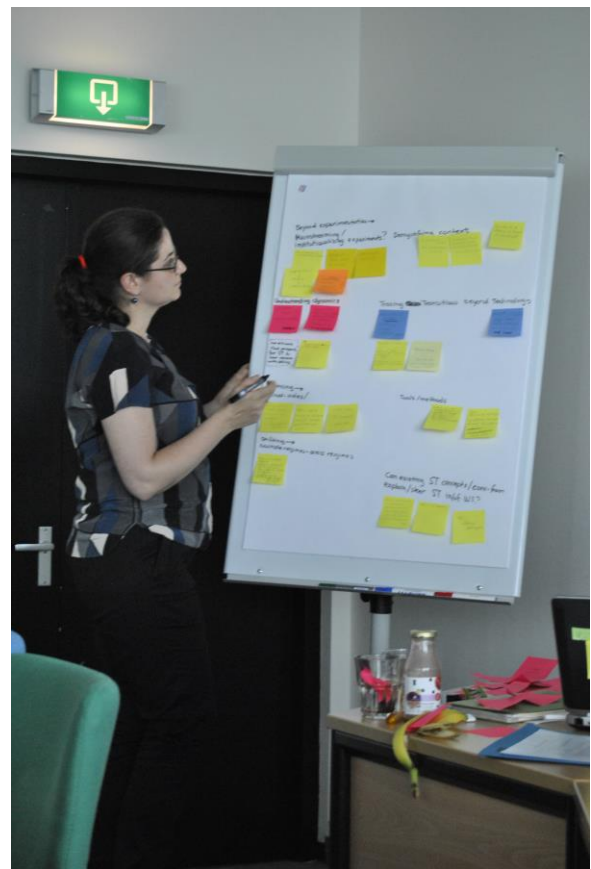
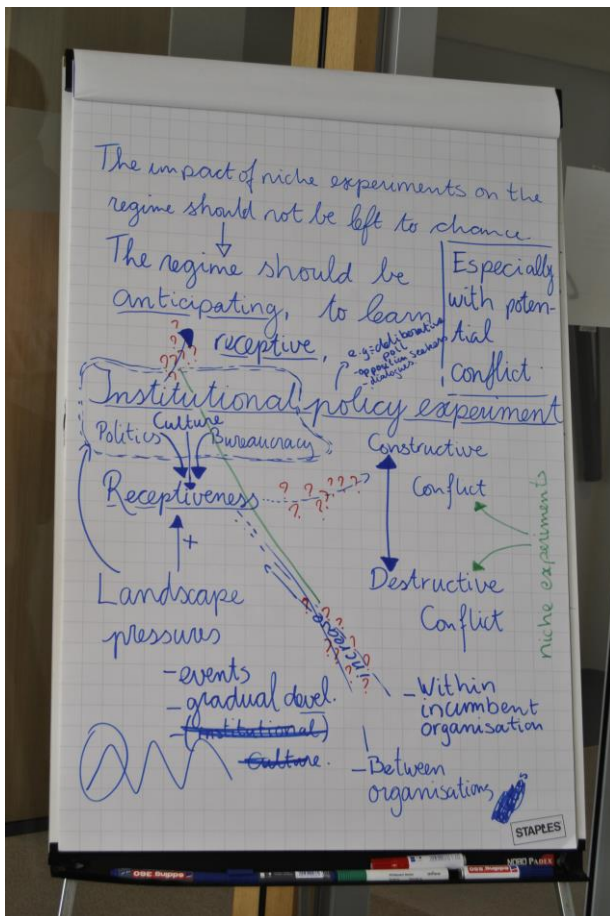






## Unravelling the welfare state: context, agency and dynamics

By analysing transitions from the angle of four processes: power shifting, experimenting & learning, interscaling and steering & navigating, three overarching entry points for a research agenda on the welfare state surge. Taking different points of departure, all contributions to the seminar are entangled in one way or the other with the changing context, agency and dynamics of and in welfare states. We take these three dimensions as (necessarily overlapping) entry points for our transnational research agenda on sustainability transitions in welfare states.



## 1. De-mystifying the context

Taking 'context' as an entry-point to study sustainability transitions implies that macro-dynamics, slow-changing socio-economic and cultural variables become the object of study. In transition studies, descriptions of 'regime' and 'landscape' of the system under study are notions through which the context of a niche innovation is described. Accordingly, 'context' is partly framed as object of change (regime) and partly as a non-influenceable static constellation (landscape). Taking this as a start, we suggest that 'context' can be examined as a dynamic entity. Welfare states, a notion which spans different service systems, are readily seen as 'context' as a sort of backdrop to transition dynamics, while others take the welfare state and its accompanying practices, structures and cultures as object of change (e.g. Loorbach 2014) or even doubt to what extent 'a welfare state' can be singled out as context.

Firstly, we propose to have a more sophisticated analysis of 'context' through **examining, analysing and conceptualising different kinds of contexts** in one's analysis. There are different conceptual dimensions that can guide the examination of context dynamics, including but not limited to: space/spatiality, temporality, policy, culture and power. Depending on the focus of the analysis, any of these can be black-boxed in the research while another is highlighted. With regard to one of these notions, spatiality, several transition scholars started opening up the transition research field to geographical analysis – i.e. the spatial configurations and dynamics of the networks within which transitions evolve (Coenen et al 2012; Coenen and Truffer 2012). As such they opened up the spatial 'context' for analysis e.g. local, national, transnational, and cross-national scales. This view extends beyond simply regarding spatiality as black box, but rather integrates it in or takes it as object of analysis. For instance, local policy actions are fundamentally influenced by regional and national decisions, such as in health (Ohta 2014; Hotta 2014) or in relation to shale gas extraction (Cuppen et al. 2014) and energy policy more generally (Shiroyama et al. 2014; Mori 2014). Taking the frame of a comparison of national contexts (Japan and the Netherlands for example) might reveal insights about definitions of context and the influence of context and context-dependent dynamics. For instance, the case of Buurtzorg shows how the Dutch context can be regarded as a success factor in stimulating new approaches to health care – currently the innovation is translated to the Japanese context raising a number of questions (Hotta 2014). For this research, a better contextualisation of Buurtzorg in the Netherlands might help to bring more detailed and valuable lessons to Japan. Reflexive design might provide actual strategies for the translation process (Grin 2014; Matsuura 2014; Hölscher et al. 2014a). Differentiating context factors and using them as analytical foci rather than as 'backdrop' for research opens up the transition research field to new questions and new objects of analysis: we see this currently happening with spatiality and also power. Another interesting notion is temporality. While it is such a crucial dimension of transitions, conceived of as long-term processes, it is still understudied (Avelino and Grin 2014). Also interesting is the notion of culture, which to date is mainly seen as a hindrance to change and as a 'thing' that needs change,

when transitions are conceived of as changes in culture, structures and practices (Wittmayer and Pieta, forthcoming).

Secondly, rather than just acknowledging 'context' as being something out there, an interesting avenue is **to understand it as an instrument of agency**: a context can be framed in a certain sense and as such be a resource for actors. Interesting research on this has just started (see Jensen 2012, who looks into the ways in which regimes are framed and the influence thereof on transition strategies). As such the kind of problems emphasised relate to the kind of solutions considered possible and enacted (Grin 2014). The power of a contextual frame or discourse also depends on its history and cultural embedding (Yamaguchi 2014). The framing of the context has a direct relation to power, the potential of power shifts and the imagination of its (im)possibility. In Japan, the framing of the energy challenge in terms of energy security does hinder radical power shifts (Mori 2014; Shiroyama et al. 2014). This research suggests that it is not enough to only pose new goals, but that a change of the underlying power structure is necessary in order to avoid backlash. This kind of analysis questions the conscious definition of persistent problems and desired transitions by policy or other actors. It also points to the need to re-define problems to enable power shifts. Trade-offs are a non-negligible element of power shifts that need to be accounted for. For instance, with regard to health care, central ethical questions refer to who should be treated at the expense of others and why (Verbeek 2006; Reuzel et al. 2003; Grin 2014). On a more reflexive note, we point to the different framings that researchers use in writing research proposals, as well as in conducting and writing up research. What does a certain kind of framing enable researchers to do and how does it relate to other discourses? As sustainability researchers, which societal developments are supported or inhibited by our research?

## 2. Agency

An agency perspective is a second entry point for unravelling the welfare state from a sustainability transitions perspective. With agency we focus on how actors may contribute in bringing about structural change – this is also the focus of governance approaches within transition studies (Grin 2011; Markard et al. 2012; Grin et al. 2011; Frantzeskaki et al. 2012; Loorbach 2010). These have been focusing on how insights from socio-technical approaches, complex systems approaches, sociology and governance literature can be translated into how change can be brought about; i.e. understanding how agency may contribute to transitions in a context of structural change (Grin et al. 2011). One of the foci is on the distributed nature of agency, i.e. that there is not one but multiple agents seeking to influence the system, with a sustainability transition being just one of the possible outcomes. Adopting an agency perspective allows to point to the distributed agency through which the welfare state does not stay something stable but rather is in constant development. Taking a multi-actor focus on transitions in and of welfare states leads to a number of novel questions in transition studies.

Firstly, in the welfare state, the state takes up a role in providing services next to family, friends and other organisations. As such, multiple actors provide 'services' at multiple points in time. In recent debates and government budget cut rounds, welfare services are rethought and reorganised. This also means that the tightly-knit networks of actors change their roles, responsibilities as well as their relation towards one another (Wittmayer and van Steenberg 2014). A transition of the welfare state is then a profoundly social enterprise: it is about finding **new ways for actors to re-define and re-articulate their own role and to relate to others**. Here it is important to move beyond the regime-niche dualism and to consider power shifts and trade-offs in terms of multi-actor processes. This comes with a number of novel questions for transition studies, inquiring into how these kind of changes can be studied, what kind of insights from sociology, anthropology and associated disciplines can help us understand these as well as how governance recommendations can be formulated through which to mediate profound changes.

Secondly, as compared to other system definitions (e.g. energy, water, agriculture), taking the welfare state as a system brings to the forefront the **profoundly normative nature** of the endeavour to rethink and reorganise the welfare state. Not only the end-goal is deeply contested, also the starting points are. Due to the many different interests at stake, a transition in whatever direction might raise controversies and conflicts, ask for trade-offs and, consequently, create winners and losers. Everyone might subscribe to the term 'sustainability' because of its vagueness, yet this also broadens the scope of what can be justified with sustainability goals. A potentially complementary, notion is described in Japanese by 'Doushouimu', meaning 'sharing the same bed but dreaming different dreams' (Shiroyama 2014). Part of the agency perspective includes research into the normative basis of the welfare state as well as how this basis is eroded or sustained through activities by different actors, which value discussions are ongoing, which discourses are struggling for attention and what these mean for the future orientation of our welfare system.

Thirdly, the governance perspective aims to understand sustainability transitions and systemic change in terms of diverse **multi-actor processes and projects in different contexts that aim to support, foster or influence sustainability transitions**. Much research highlights the difficulties in generating wider societal impact from initial governance interventions (Matsuura 2014; Hölscher et al. 2014a; Bos et al. 2014; Wittmayer et al. 2014; Frantzeskaki et al. 2014). There are diverse challenges to be addressed and further researched. In order to further develop our understanding of the design principles of such governance frameworks, feedback loops closing the gap from implementation back to reflection, adaptation and further development of these principles is currently underdeveloped (Frantzeskaki et al. 2014). Governance interventions should be researched not only with a focus on the intervention, but with a focus on the system and its dynamics on the long term: with the field gaining a certain maturity, long term studies could evaluate the processes and their outcomes over a longer time frame (cf. Bos et al. 2014) and also addressing the challenge of the monitoring and evaluation of systemic change (see also Taanman 2014). This kind of studies can historically analyse the tension between system innovation and a strengthening of the existing system.

As a red thread, **science and its researchers** is one of the actors that might see their own role undergoing another shift in the coming decade. Transitions in and of welfare states do provide a podium for researchers to engage and to take their 'societal responsibility' (Cornell et al. 2013, 67) to engage in real-life questions and to produce knowledge that is socially and scientifically relevant. This can for example be done through action research like processes, where spaces for interaction are created (Wittmayer et al. 2014). In these, normative questions can be discussed, contexts be framed in a way that allows for experimentation with actions towards sustainable development and new social relations. The focus is then on dialogue, conflict, reflexivity and learning. Engaging in transformative and transformation research also means building new science systems, which are part of societal processes rather than standing at the sideline. As researchers in the sustainability transitions field, we are part and parcel of building this 'new science of sustainability' as is attested by our STRN network (STRN 2014). The question of the role and position of researchers is therefore of crucial importance, since they are part of transition processes through their research activities. How science is going to look like (e.g. interdisciplinary, transdisciplinary, interparadigmatic, intergenerational, cf. Avelino 2011, Avelino and Grin 2014) and what the roles of researchers will be (e.g. describing, analysing, contributing to an understanding, organizing processes or being engaged in transformative action, cf. Wittmayer and Schöpke 2014, Matsuura 2014) is in transition and hence part of our research agenda.

### 3. Dynamics of welfare states

Looking at the dynamics that characterise, influence and result from change is a third entry point for the study of sustainability transitions in welfare states. System change dynamics result from feedback processes, which are triggered and reinforced by driving forces, manifest in impacts and unfold across time and scales (Hölscher et al. 2014b). There is a need to open up the existing conceptual approaches (e.g. multiphase model by Rotmans et al. 2001; Rotmans and Loorbach 2011; the multilevel perspective by Geels 2002; Geels and Schot 2007; 2011; and the multi-pattern approach by de Haan and Rotmans 2011). Against the backdrop of changing welfare states, in-depth insights into change dynamics are crucial to understand what/who is driving change, what kind of change, which impacts are to be expected when and where, and how to play into and respond to change and impacts. This broadened view closely links this third entry point to the other two on 'context' and 'agency', yet allows a more dynamic analytical and prescriptive focus with regards to change dynamics of welfare states.

Firstly, **highly diverse change dynamics play out across scales and time**. This provides a complex view on how change unfolds in systems such as welfare states. To increase understanding of the diverse dynamics of welfare states and their implications for (un-)sustainability, research is required that draws a comprehensive picture of drivers and impacts as well as their interactions in form of feedback processes. This concerns the relationship between public and private actors, service provisions, globalisation dynamics and exposure to social-ecological risks. The seminar contributions attest to the diversity of driving forces, impacts and related feedback processes. For instance, individual (un-)sustainable behaviours or attitudes are influenced by long-term cultural and/or technological factors (Yamaguchi 2014; Grin 2014). Broader socio-economic and ecological factors also affect conditions and strategies of welfare states, such as demography (Hotta 2014; Grin 2014; Ohta 2014) or Tsunamis and earthquakes (Mori 2014), and are met with vested interests and capacity constraints at different levels. Similarly, higher-level socio-political discourses influence local opinions, and vice versa, inducing conflict, learning and problem reframing about sustainability issues (Cuppen et al. 2014). The papers by Mizuguchi et al. (2014), Sengers et al. (2014) and Kajiki (2014) raise questions of how formal, state-driven experiments link to decentralised and business or civic forms of experimentation, or how networked experiments link across multiple scales. The interaction of actors at multiple scales is also discussed in terms of decentralisation dynamics – what drives them and why as well as what effects do they have (Ohta 2014; Hotta 2014; Mori 2014; Shiroyama et al. 2014). In sum, a comprehensive view on dynamics opens up a vast area for research, which requires to look beyond a simple MLP depiction of elements and to take a dynamic perspective on feedback processes between driving forces and impacts. This is essential to increase understanding about drivers and impacts of change in welfare states, about relevant feedback processes and change dynamics, and to reveal vantage points for a sustainability transition: What is driving (un-)desired change? How is (un-)desired change induced, reinforced or broken down?

A second point for inquiry is **the extent to which change dynamics impede or facilitate (un-) desired system change and how the dynamics themselves change**. Although this can take manifold forms, the seminar contributions and discussions focused on the link between observable dynamics and a sustainability transition in welfare states: on whether and how system optimisation can be distinguished from system innovation, and which dynamics can explain possible success or failure of interventions such as experiments (see also Bos et al. 2014; Frantzeskaki et al. 2014). In welfare states, decentralisation reforms should combine the handing over of responsibility with considerations for local capacity constraints (Ohta 2014; Hotta 2014; Shiroyama et al. 2014). This also concerns a focus on power shifts; many of the seminar contributions illustrated the hierarchy and rigidity of formal policymaking processes and vested interests, which impede transformative change (Mori 2014; Shiroyama 2014). Power shifts can also be understood broader, pertaining for instance to the empowerment of citizens to take up an active role in fostering a sustainability transition (Hölscher et al. 2014a; Grin 2014). Research into long-term dynamics of system change is required to evaluate how actions and changing dynamics relate to sustainability transitions in welfare states.

Lastly, this entry point relates to questions on **how to play into the dynamics of change processes** by addressing drivers and impacts of change and altering change dynamics. The seminar started from key processes such as experimenting, learning and governing and quickly discussed these across scale and time. In general, convergence of bottom-up mechanisms (experimentation) and top-down steering (setting the boundaries within which the new system can emerge) is necessary (Loorbach 2014). Central questions are: What are the appropriate scales and timing for governance and experimentation? What for collaboration, contestation and learning? How do these processes enable to play into dynamics of welfare states? While decentralisation offers the promise to connect more directly to the needs of the local population and to link with local innovation dynamics, the actual descaling-process also requires additional capacities and knowledge sharing and collaboration efforts (Ohta 2014; Shiroyama et al. 2014; Hotta 2014). Similarly, niche experiments might rely on the support from governments (Kajiki 2014; Mizuguchi 2014; Ohta 2014). Other questions are: What types of learning and experimentations are useful to open up and align different scales? How can lessons from experiments be scaled? Which role can conflict play to increase receptiveness and learning (see e.g. Beers and Hermans 2014; Cuppen et al. 2014)?



## Looking forward

Although Japan and the Netherlands are seemingly very different societies with distinct cultures, strengths and weaknesses, they also share a lot of similarities when analysed from a transitions perspective. The exchange of analyses, insights and ideas across sectors (i.e. energy, agriculture and health care) along four transition processes showed that both countries struggle with the need to deal with broader societal challenges. The discussions also showed that new ways to reconceptualise these challenges and new ideas for practical interventions are developed. Many of the papers showed examples of such relatively experimental and perhaps still somewhat marginal attempts. Yet, these examples suggest there is a potential for developing context sensitive and transition oriented governance strategies.

### **Box 1: Publication of a special issue from the seminar**

The seminar presentations and discussions opened up many issues for further research on sustainability transitions in welfare states. We intend to communicate these insights and start a broader scientific discussion. Therefore, selected papers from this seminar are compiled into a special issue to be published in "Technological Forecasting and Social Change", edited by Niki Frantzeskaki and Julia Wittmayer.

The exchanges further emphasised the need and potential for cross-cultural and inter-sectorial exchange and learning. The seminar enabled not only the exchange between countries, but also across domains within the two countries. The central topics identified in this working paper provide a guiding basis for further exchanges in the future. They offer a novel contribution to the international field of transition studies but also a focus point for further steps in the exchange

between Japan and the Netherlands. The development of a special issue as well as collaborations around a joint panel and specific research visits are concrete small steps (see Box 1). Also foreseeable are more substantial collaborations in developing new research proposals and development of shared education (see Box 2).

In this way, the loose network established through the joint seminar will continue to contribute to sustainability transitions in science and practice. While the Dutch researchers learned a lot from the methodological and empirical approaches and

### **Box 2: Concrete example for a joint research project**

The seminar also provided a fertile ground to think about common research projects. Concrete ideas include comparisons between experiments in different settings to 'demystify context'. A key example is Buurtzorg, which originates in the Netherlands but is now being installed in other countries, including Japan. Discussions during the seminar showed that comparing the two implementations leads to additional insight in the success of Buurtzorg, including the ways it can draw on the incumbent care system. Such a research endeavour could also include a focus on how Buurtzorg promotes patient agency.

examples from Japan, the Japanese researchers picked up many ideas and suggestions on how to bring transition research into applied and practical experiments. As the need to help guide and accelerate transitions to a more sustainable society will likely only increase as the sense of urgency increases, this network for exchange and joint experimentation offers a platform for reflection, learning and experimentation.

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13	MURAKAMI, Shuzo <i>Did not attend due to sickness</i>	Committee Chair Future City Initiative; President Institute for Building Environment and Energy Conservation Tokyo
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