

This is the third newsletter from the steering group of the Sustainability Transitions Research Network. The newsletter is divided into the following sections:

- Words from the Chairman
- Network news
- Event announcement
- Event reviews
- New research projects
- Jobs & training
- Publications

We welcome all members to submit news items for the next newsletter. You can use the website www.transitionsnetwork.org (submit projects, output or news), or send a message to sustainabilitytransitions@gmail.com. The advantage of using the website for submission is that the information also becomes available online.

The STRN steering group

Words from the Chairman

Dear transition research colleagues,

'Green growth' has become an important topic in the run-up to the Rio+20 Conference this year (June 20-22). The OECD and UNEP have written several reports on green growth, and an alliance has been formed to advocate the need for transitions to a green economy (<http://www.greeneconomycoalition.org/>). The new discourse suggests that economic growth and sustainability can be compatible. For the STRN community it is interesting that this discourse resonates very well with our framing of problems and solutions.

The OECD (2011) writes that "Strategies to achieve greener growth are needed. (...) We have to find new ways of producing and consuming things, and even redefine what we mean by progress and how we measure it. (...) Changing current patterns of growth, consumer habits, technology and infrastructure is a long-term project and we have to live with consequences of past decisions for a long time. (...) A transition to green growth is much more than shifting sources of energy production. It involves systemic changes across the entire economy."

And the UNEP (2011) writes that: "Our world, and the risks we face, have materially changed, and require a fundamental rethinking of our approach to the economy. As this report has argued, a reallocation of public and private investments (spurred through appropriate policy reforms and enabling conditions) is needed to build up or enhance natural capital such as forests, water, soil, and fish stocks. These green investments will also enhance new sectors and technologies that will be the main sources of economic development and growth of the future. (...) Complementary investments are required in human capital. (...) Public investments will be required to jump-start an effective transition to

a green economy. (...) (...) Regulations, standards and targets are important to provide direction.”

These reports not only recognize the need for systemic transitions, but also their multi-dimensional character. But the conceptual understanding in these reports is rather economic, following either a conventional economic view (focusing on changes in incentive structures) or a neo-Keynesian view (emphasizing the need for expanded public and private investments and regulatory changes).

In my view, our community can offer broader and deeper understandings of the drivers of sustainability transitions, which also include technical, cultural, political, social, and geographical dimensions. Furthermore, I think that our community is ready to engage with mainstream debates such as green growth. Over the last 10 years we have developed a robust conceptual repertoire, in-depth case studies, modeling tools, and foresight methods. At the first international sustainability conference in Amsterdam (2009), James Meadowcroft urged us to step out of our own niche, and engage with broader disciplinary and political debates. I think we are ready for that now, and already engaging in that process as this newsletter shows. We are increasingly moving from a core set of journals in innovation studies towards publishing (additionally) in ‘disciplinary’ journals (in geography, transport studies, energy, agri-food, sustainability). We have ‘mainstream’ academics publishing in our journal (‘Environmental Innovation and Societal Transitions’). And our workshops and international transition conferences form good arenas to engage explicitly with influential think tanks and policymakers at the OECD, UNEP, and European Commission. These are interesting times for our community, and it exciting to be part of it. As a relative outsider recently commented to me in an email: “I feel the entire Transitions project has really gathered significant momentum with the core theory and ideas being applied and further developed by a burgeoning array of researchers who have come to recognise its value as an organising framework.”

OECD, 2011, *Towards Green Growth: A summary for policy makers*

UNEP, 2011, *Towards a Green Economy: Pathways to Sustainable Development and Poverty Eradication; A synthesis for policy makers*

Frank Geels, Chairman of STRN (f.w.geels@sussex.ac.uk)

Network News

Any news related to ongoing activities of STRN

Start of a *Policy Research Centre on Transitions for Sustainable Development in Flanders (Belgium)*

January 2012 saw the start of a new research consortium in Flanders, called TRADO, that in the period 2012-2015 will develop several research projects on sustainability transitions and transition governance. TRADO is the Dutch acronym for ‘Transities voor Duurzame Ontwikkeling’ (‘transitions for sustainable development’). The consortium is mainly made up of researchers from the K.U.Leuven and Ghent University, supported by researchers from the Flemish technological research institute VITO and the Dutch research institute DRIFT (Rotterdam University). The new initiative is part of a funding programme of the Flemish government in which universities and other research institutes are asked to cooperate and deliver policy-relevant research for the different policy domains of the government. TRADO continues and further extends the work that was started in the period 2007-2011 in a previous policy research centre on sustainable development, where transition research was only one of the themes. Now, transitions have become the common ground for all research in the new centre. The main research themes in the centre are: structure and agency dynamics in transition governance processes and experiments; evaluation and monitoring of

transitions; cities in transition; financing of transitions; scenario usage in transition governance; impact assessment; sustainable public procurement.

The start of TRADO coincides with some remarkable developments in Flemish policy. Mid 2011, the Flemish government approved a new strategy on sustainable development that articulates the ambition to continue the 2 existing transition management processes (sustainable housing and building; sustainable materials management) and to start 4 new processes (food and agriculture, energy, mobility, care). Furthermore, transition thinking was incorporated in the central socio-economic innovation strategy of the Flemish government, the so-called Flanders in Action programme. From early 2012 onward, this programme will start up 13 transversal projects that will make use of transition management in order to accelerate the implementation of Flanders in Action. There may well be exciting times ahead for the TRADO consortium...

Erik Paredis, Centre for Sustainable Development, Ghent University (Erik.Paredis@UGent.be). The website of TRADO is under construction. The website of TRADO is under construction, but is going to be www.steunpuntrado.be".

European regions take a transition approach: the Pioneers into practice programme

In 2010 an innovative programme was launched: the *Pioneers into Practice programme*. The programme is part of the Climate Knowledge and Innovation Community programme (Climate-KIC) of the European Institute of Innovation and Technology. It is different from other parts of the Climate KIC programme in at least two ways. The first is that it is a *regional* initiative instead of that of business or research institutes. Six regions participate: Hessen (Germany), Valencian region (Spain), Emilia Romagna (Italy), Lower Silesia (Poland), Central Hungary and the West Midlands (UK). In the second place and more important here, it is very much inspired by transition knowledge instead of by ideas of conventional innovation by business competition.

The programme brings together key regional development players—from universities, research and technology organisations, industry, regional and local authorities. To broaden their network (which is the first aim of the programme), these 'pioneers' have two one-month placements, one domestic, one abroad. To increase their 'transition' competences (which is the second aim), they follow a mentoring programme with 2-day 'Crucibles' and extra one-day workshops. Here, Dutch KSI transition experts teach transition knowledge and practical tools, which Pioneers are to apply to their own regional projects or programmes.

As an innovative programme, the Pioneers programme is much about learning-by-doing and doing-by-learning. In terms of transition jargon, the programme turns out to be a niche programme in the EU environment. During the pilot year 2010/2011, for example, tension between financial EU rules and the niche approach of the programme troubled the programme. It is also becoming clear that the programme is to be protected in these times of financial crisis against high pressure and high expectations to (directly) lead to new business. In the mentoring programme it was learned that the transition knowledge should be made much more concrete and practical and that more time was needed. Participants nevertheless were quite positive. Among new challenges for the coming years will be how to keep the regional pioneers together, after they have followed the one-year's programme; (how) to educate regional experts and to come to follow up in terms of new or improved regional climate initiatives. With respect to the first issue, an initiative has already been taken to come to an association of pioneers. To promote new initiatives of pioneers, among other things, a bid is being developed for EU money for a common Smart Cities project. Also this bid includes transition ideas.

Lydia Sterrenberg, Coordinator Mentoring programme, Pioneers into Practice [pip.mentoring@kpnmail.nl]

Event announcements

Calls for upcoming relevant events such as workshops and conferences

Conference announcement: EU-SPRI Conference 2012: “Towards Transformative Governance? Responses to mission-oriented innovation policy paradigms” (12/13 June 2012 in Karlsruhe, Germany)

The Fraunhofer Institute for Systems and Innovation Research ISI is organizing the 2nd biennial conference of the Eu-SPRI Forum (<http://www.euspri-forum.eu/>). Fraunhofer ISI is celebrating its 40th anniversary in 2012 and the conference will be a major part of the anniversary celebrations. The conference takes the notion of ‘grand societal challenges’ (Europe 2020 Strategy) seriously, and investigates if and how this requires (new kinds of) mission-oriented governance. There are four specific themes, one of which includes transition-related issues:

1. New patterns, drivers and models of innovation
2. Policy instruments and their coordination
3. Governance of transformative change. Do sustainable transitions require new policy paradigms to foster radical innovation in complex social systems? Is there a need for a normative turn in innovation policy? What is the role of visions and strategy in the governance of innovation?
4. New methods of policy analysis

For more information see the conference website: www.eu-spri-conference-2012.org and contact us at contact@eu-spri-conference-2012.org. Visit Eu-SPRI Forum at <http://www.euspri-forum.eu/>

Jonathan Köhler [Jonathan.Koehler@isi.fraunhofer.de]

Conference announcement: The third International Conference on Sustainability Transitions (Copenhagen, 29-31 August, 2012)

The third International conference on Sustainability Transitions will take place from 29-31 August in Copenhagen. It will be organized by the Technical University Denmark. The ambition of the IST 2012 conference is to offer an opportunity to identify and critically elaborate the emerging conceptual and theoretical assumptions of the transition community - some time taken for granted - and offer space for the exchange of experiences with a broad range of empirical investigations and interventions. Core themes of the conference will be:

- Socio-technical Regimes and the Dynamics of Transitions
- Transition Governance and Strategic Navigation
- Transitions and the Unfolding Controversies over Sustainability
- Learning from Historic Transitions and their Dynamics
- Case Studies and Reflections on their Boundaries

More information can be found on the conference site www.sustrans.dk.

Ulrik Jørgensen [uj@man.dtu.dk]

Special session on 'Modelling and simulation of societal transitions' (At the 8th Conference of the European Social Simulation Association) University of Salzburg, Austria, September 10–14, 2012

The annual European Social Simulation Association conference invites researchers from a wide range of disciplines, including, among others, computer sciences, sociology, political sciences, psychology, anthropology, economics, or geography to participate in order to share knowledge and experience in social simulation approaches. The topics for the special session include, but are not limited to *computational modelling and simulation* on the following topics:

- * Emergence of transitions in socio-technical systems
- * Spatial aspects of societal transitions

- * Adaptation of infrastructures against new threats
- * Long-term development of infrastructures
- * Decision support for policy makers
- * Transition Management
- * Sustainability
- * Modelling tools and paradigms

For more info see: <http://www.essa2012.org/>

Workshop on Low Carbon Transitions: Relevant Lessons from the 1970s Crisis? (25 April 2012, CUBE Building, Portland Street, Manchester)

This workshop, in the ESRC Sustainability Transitions Seminar Series, will consider the similarities and differences between the economic, ecological and political crises being faced now and those faced in the 1970s. It will look at how ‘experimental’ responses in both periods – new technologies, governance arrangements, patterns of consumption, modes of financing, forms of planning etc. were mobilised as responses to crises and what problems they were seeking to address. The workshop is aimed at practitioners and researchers working on contemporary transitions, with a view to making productive use of some historical perspective and will be highly interactive. Andy Beckett, author of *When the Lights went out: Britain in the seventies*, will reflect on the contemporary relevance of his book. To book a place, email Vicky Simpson at v.simpson@salford.ac.uk

Workshop “Global and Regional Research on Sustainable Consumption & Production Systems: Achievements, Challenges, and Dialogues” (June 13-15, 2012, Rio de Janeiro)

The Global Research Forum on Sustainable Consumption and Production (GRF-SCP) organizes a 2.5 day for researchers and practitioners in SCP (Sustainable Production and Consumption). The workshop will assess progress on knowledge creation and practice in the field of SCP, especially in the context of current discussions on the “Green Economy”. The workshop will include a dialogue between knowledge producers/researchers and knowledge users (practitioners, advocates, educators, and policy makers). In addition, it will bring regional perspectives from North America, Europe, Africa, Asia Pacific and Latin America, through its partnering programs and organizations.

About 80 participants are expected to participate; 40 academic and practitioners papers are in preparation. Keynotes will be given by Chandran Nair, Peter Victor, Tim Jackson, Inge Ropke, Jacqueline McGlade, and possibly Juliet Schor. Attempts will be made to translate the workshop findings into the subsequent Rio+20 conference: A conference declaration is being prepared, and the outcomes will be presented in a Conference report, on-line proceedings, a book and a special issue of the *Journal of Cleaner Production*. The workshop is financially endorsed by the Nordic Council of Ministers, IGES, the Brazilian Ministry of the Environment, ESPM ESPM (School of Higher Education in Marketing & Communication Management) in Rio de Janeiro. Participation is by invitation only.

This workshop will be the first of a multi-year series of activities, including bi-annual global meetings, regional meetings, the development of a database with information on participants, publications, and projects. In case UNEP will implement its 10-year Framework of Programs on SCP (to be adopted in Rio+20) GRF-SCP might become the global research program of this 10YFP; otherwise it will continue as an independent organization. Participation in the GRF –SCP is open to all researchers and practitioners in SCP who share an interest in a transition to a sustainable society “beyond consumerism”.

Information: **Philip Vergragt**, pvergragt@tellus.org

Book workshop on new volumes in Routledge series on sustainability transitions

On 30 March 2012, there will be a workshop to present and discuss three new books that appeared in the Routledge series. The workshop will take place at Eindhoven University of

Technology. For more information contact Johan Schot (j.w.schot@tue.nl). The following three books will be presented and discussed:

Gert Spaargaren, Peter Oosterveer, Anne Loeber (eds.), 2012, *Food Practices in Transition. Changing Food Consumption, Retail and Production in the Age of Reflexive Modernity*.

Awareness has risen that our food production and consumption should be organized in more sustainable ways. There is widespread public support for changes towards this end. Yet the question is how this can be achieved, given the complexity and interdependency of food networks and chains. This Volume brings together accounts of changes towards more sustainable practices in the food provisioning system that may facilitate the desired transitions in the food sector. The focus is on all major actors active within the food chain: consumers, retailers and producers, as well as designers of new production technologies. In this way, changes and the potential for change throughout the food chain are mapped: from kitchens to stores, to supermarkets and farms.

Frank Geels, Rene Kemp, Geoff Dudley and Glenn Lyons (eds.), 2012, *Automobility in Transition? A Socio-Technical Analysis of Sustainable Transport*

Is the automobility regime experiencing a transition towards sustainability? To answer that question, this book investigates stability and change in contemporary transport systems. It makes a socio-technical analysis of transport systems, exploring the strategies and beliefs of crucial actors such as car manufacturers, local and national governments, citizens, car drivers, transport planners and civil society. Two guiding questions are: Will we see a greening of cars, based on technological innovations that sustain the existing car-based system? Or is something more radical desirable and likely, such as the development of travel regimes in which car use is less dominant?

Verbong, G.P.J. and Loorbach, D. (eds.), 2012, *Governing the Energy Transition: Reality, Illusion or Necessity?*, New York: Routledge

This book explores emerging energy transitions and their governance. It discusses current crises and lock-ins, identifies multiple transition pathways, and studies interactions between industries, policymakers, consumers, and civil society. As a guiding question the book asks if the governance of energy transitions is already reality, just an illusion or a bare necessity.

The books can be procured separately; for those who are interested in the entire series, there is a special offer. For more information on this possibility, as well as for more substantive information on the book, see www.sustainabilitytransitions.com

Event Reviews

Review of events interesting to the STRN community

Workshops in Kolkata and Shanghai on mobility

At the end of December and the beginning of January, two workshops were held in Kolkata and Shanghai, gathering historians and social scientists specialized in mobility, its history and possible transitions towards sustainability. Sponsored by Eindhoven University of Technology and the journal *Transfers*, as well as the Shanghai Academy of Social Sciences, the purpose of both workshops was to make an inventory of the local state of the art, and investigate further possibilities of cooperation as far as research in (the history of) mobility is concerned. In Kolkata, the workshop paid special attention to role of 'old' technologies such as rickshaws as well as to social mobilities in broader processes of transitions. In Shanghai special attention was given to the role of the railway in modernization, as well as pre-industrial transport. Because the Shanghai workshop was in Chinese, *Transfers* editor and sinologist Nanny Kim translated. The best of the papers will be published in future issues of

Transfers, a journal which aims at 'rethinking mobility' and offers publication space to high-quality scholarship of both historians and social scientists. Both workshops were concluded with the observation that mobility studies in Asia (both historical and future-oriented) have major potential, and its organisers are currently exploring further collaborations and funding opportunities.

Gijs Mom, Eindhoven University of Technology (g.p.a.mom@tue.nl)

New research projects

Information about ongoing research activities such as the start of new research projects

TOP-NEST: Technology Opportunities in Nordic Energy System Transitions (5-year research project funded by Nordic Energy Research).

To meet 2050 energy and climate policy goals, a major transition is required in the Nordic region. Indeed, changing energy and transport systems may require fundamental social changes. Industrial actors and policy makers will need insights and analyses to help guide their decision-making throughout this process; and, these analyses will have to take account of concerns of environmental sustainability *and* economic competitiveness.

This new project will explore how renewable energy technology platforms may give rise to new value chains, creating entrepreneurial opportunities in the Nordic countries. The research questions are:

- (1) What are the main path-dependencies and potential new value chains arising from renewable technology platforms when applied in sustainable energy and transport systems?
- (2) What changes in organisational and institutional conditions are needed to facilitate sustainable transition pathways?
- (3) What are the governance implications, in terms of industrial strategies, public policy and public-private cooperation?

The project is being coordinated by Dr. Antje Klitkou at NIFU: Nordic Institute for Studies in Innovation, Research and Education, Norway. Other partners are Environmental and Energy Systems Studies at LTH in Lund (Prof. Lars J. Nilsson), VTT Technical Research Centre of Finland and Risø DTU, National Laboratory for Sustainable Energy, Denmark. The research team at CIRCLE consists of Lars Coenen and a PhD student (in collaboration with Environmental and Energy Systems Studies).

More info can be found at: www.top-nest.no

Lars Coenen [Lars.Coenen@circle.lu.se]

Urban Transition Management in action: An update from the MUSIC-project (Mitigation in Urban areas: Solutions for Innovative Cities)

Cities are facing major sustainability challenges at local level, such as climate change, environmental degradation and social-economic turmoil. At the same time, cities offer the opportunity for decisive local action to address them. The complexity and uncertainty of these challenges however imply loss of direct control by local governments and require reinventing of roles and a new governance approach.

The Dutch Research Institute For Transitions (DRIFT, Erasmus University Rotterdam) develops the Urban Transition Management (UTM) method as an attempt to offer an appropriate governance approach. As part of the Interreg-funded MUSIC project, DRIFT assists five European cities to apply this UTM-method: Aberdeen, Montreuil, Ghent, Ludwigsburg and Rotterdam. All these cities have ambitious CO2 reduction targets and use the UTM-method to build up local change-agent networks and elaborate a joint vision and strategy for a low-carbon future of the city.

One of the key elements of this method is a series of meetings of a so-called *transition arena*, a small but diverse group of people from all kinds of backgrounds

(businesses, government, research institutes, citizens). Starting from a transition analysis, this group engages in an envisioning process to draft visionary images and transition paths. These guide the search for strategies to transform existing structures, cultures and practices and the realization of new projects, collaborations and experiments.

All five cities currently started implementing the method, each in their own way, with differences in pace and focus. The MUSIC project therefore provides an important empirical basis to elaborate Urban Transition Management and apply it in different (national) socio-political contexts. Intermediate results are reported at the following links below:

- Conference paper "Towards an urban change agents' analysis method: Experiences from five European cities" > <http://j.mp/yfITWA>
- Conference paper "Sustainability Transitions in Urban Spaces – Towards an understanding the nature and the complexity of sustainability transitions in urban spaces" > <http://j.mp/wFKVml>
- MSc-thesis on systems analysis methodology for Urban Transition Management by Suzanne Maas (available on request)
- "Visual memory aid" of the Third MUSIC Partner Meeting > <http://j.mp/zadQbK>
- Magazines as a result of the arena-sessions in Ghent, including interviews with the participants (15 different magazines, in Dutch) > <http://j.mp/yo8drp>

For more information, see www.themusicproject.eu or contact **Chris Roorda** (roorda@drift.eur.nl)

Jobs and Training

Job and training announcements of positions relevant for the STRN community

Publications

Announcement of new publications such as research papers, PhD theses and books

Third issue of “Environmental Innovation and Societal Transitions”

The forthcoming third issue (actually Vol. 2 issue 1) of “Environmental Innovation and Societal Transitions” (EIST) is online. See:

<http://www.sciencedirect.com/science/journal/aip/22104224>

It will be published in March. It contains, next to one book review on “transitions and global change”, six regular articles, dealing with the following topics:

- The economic crisis and sustainability transitions
- The competitive environment of electric vehicles: prototype and production models
- Social housing and low carbon transitions
- Effects of EU ETS on innovation in the electricity sector
- Explaining regime destabilisation in the pulp and paper industry
- Public resource allocation to escape lock-in given infrastructure-dependent vehicle technologies

Like the previous issue, this one contains a variety of methods, including empirical case studies, statistical analysis, and formal modeling.

I would like to ask you to consider referring to published EIST articles in your papers. Having many citations is a necessary condition to make the journal a success. Of course I do not want to ask for irrelevant citations!

In addition, please note that if you consider submitting an article to EIST (and we urgently need submissions!) this needs to include "Research Highlights", a new feature of Elsevier journals/articles. We have noted that currently these highlights are often quickly written in the

last stage once the paper is accepted, which evidently does not contribute to a good quality. Like the abstract and the rest of the text the highlights are best to be optimized in different rounds of revision. Note that four or five highlights are required, each consisting of no more than 85 characters including spaces.

Jeroen van den Bergh, Editor-in-chief of EIS (jeroen.bergh@uab.es)

Invitation for special issues of EIST

We would like to invite contributions to special issues of the journal "Environmental Innovation and Societal Transitions". The following themes are considered:

- Learning from failures: unsuccessful innovations and transitions
- The growth paradigm and sustainability transitions
- Power as a barrier/opportunity to/for transitions
- What can (have) we learn(ed) from transition experiments
- Transitions in urban water management

Anyone interested in editing or contributing to a special issue (including for the above mentioned themes) should contact the editor (jeroen.bergh@uab.es). We welcome suggestions for other themes as well.

Jeroen van den Bergh, Editor-in-chief of EIS (jeroen.bergh@uab.es)

14 special issues on sustainability transitions

Three new special issues on transitions are forthcoming (see further descriptions below). It is hard to keep up with all the publications. As a service to the STRN-community, we therefore provide a list of all the special issues that have appeared since 2005, mentioning the topic, journal, year, and guest editors. We hope this helps you find articles that are of interest to you.

'Sustainability transitions through system innovation', *Technological Forecasting and Social Change*, 2005, Vol. 72, No. 6 (editors: Boelie Elzen, Anna Wieczorek)

'The micro-dynamics of sustainable innovation journeys', *Technology Analysis & Strategic Management*, 2008, Vol. 20, No. 5 (editors: Frank Geels, Marko Hekkert, Staffan Jacobsson).

'Transition towards sustainable energy systems', *Energy Policy*, 2008, Vol. 36, No. 11 (editors: Reinhard Haas, Jim Watson, Wolfgang Eichhammer)

'Sustainability transitions in developing Asia', *Technological Forecasting and Social Change*, 2009, Vol. 76, No. 2 (editors: Frans Berkhout, David Angel, Anna J. Wieczorek)

'Designing long-term policy: Rethinking transition management', *Policy Sciences*, 2009, Vol 42, No. 4 (Jan-Peter Voß, Adrian Smith, John Grin)

Socio-technical experiments in Asia: A driver for sustainability transition?', *Environmental Science & Policy*, 2010, Vo. 13, No. 4 (editors: Frans Berkhout, Geert Verbong, Anna J. Wieczorek)

'Transforming the energy system: The role of institutions, interests and ideas', *Technology Analysis & Strategic Management*, 2010, Vol. 22, No. 6 (editors: Schreuer, A., Harold Rohracher, Philip Späth)

'The role of trust in managing uncertainties in the transition to a sustainable energy economy' *Energy Policy*, 2010, Vol. 38, No. 6 (editors: Paul Bellaby, Malcolm Eames, Rob Flynn)

"Infrastructures and transitions", *Technological Forecasting and Social Change*, 2010, Vol. 77, No. 8 (editors: Derk Loorbach, Niki Frantzeskaki, Wil Thissen)

'Innovation and sustainability transitions', *Research Policy*, 2010, Vol. 39, No. 4 (editors: Adrian Smith, Jan-Peter Voß, John Grin)

'Governing system transitions towards sustainability: Theoretical and empirical explorations', *International Journal of Sustainable Development*, 2012, Vol. 15, No. 1-2 (editors: Joop Koppenjan, Niki Frantzeskaki, Derk Loorbach, Neal Ryan)

'Places and spaces of sustainability transitions', *European Planning Studies*. Forthcoming (editors: Lars Coenen and Bernhard Truffer)

'Sustainability transitions in the making: A closer look at actors, resources and strategies', *Technological Forecasting and Social Change*, Forthcoming (editors: Jacco Farla, Jochen Markard, Rob Raven, Lars Coenen)

'Sustainability transitions: An emerging field of research and its prospects', *Research Policy*, Forthcoming (editors: Jochen Markard, Rob Raven, Bernhard Truffer)

Frank Geels (f.w.geels@sussex.ac.uk)

Special issue on 'Sustainability transitions in the making: A closer look at actors, strategies and resources'

Forthcoming in: *Technological Forecasting and Social Change*,

Guest editors: Jacco Farla, Jochen Markard, Rob Raven, Lars Coenen

The field of sustainability transitions is characterized by a wide variety of topics, approaches and methodologies, but a general feature is that transitions towards sustainability are framed from a systems perspective. This is consistent with the general understanding of socio-technical transitions as major changes in technological, organizational and institutional terms for both production and consumption. Empirical and theoretical research in the field has led to the development of various conceptual frameworks such as the 'multi-level framework' and 'technological innovation systems'. These frameworks have been very helpful in sketching the bigger picture, but might have come at the expense of a more actor-oriented and agency-sensitive analysis. It is against this background that this special issue draws attention to the dynamic interaction between what different kinds of actors do and what can be observed at the system level. It aims to provide a closer look at how strategies, resources and capabilities of individuals, firms and other organizations impact the overall system and trigger transformation processes, and how these changes at the system level feed-back into the observed strategies at the actor level. The seven contributions show that changes in socio-technical systems (established sectors as well as emerging fields) can often be traced back to strategic interventions of particular actors. Innovation and transition processes, in other words, do not just emerge from a rather unintentional interplay of actors that pursue their own narrow strategies. Instead, they may be strategically shaped by players with some kind of a 'larger plan' or vision – at least to a certain extent.

Special issue on: 'Sustainability transitions: An emerging field of research and its prospects'

Forthcoming in: *Research Policy*

Guest editors: Jochen Markard, Rob Raven, Bernhard Truffer

Today we observe a growing international community of scholars in the field of transition studies. Several institutional structures have been developed quite recently such as a series of conferences, a new journal and an international network (STRN). This institutionalization of the field signals an important new phase for the transition studies community: it creates new opportunities for more intense collaboration, contributes to the legitimization of transitions research and might also facilitate interaction with policy makers. At the same time, this recent growth justifies a further extension of sustainability transitions research in empirical and conceptual terms. This special issue wants to reach out beyond existing concepts as we identify scholarly communities such as economic geography, management studies, sociology, policy studies and modeling that have dealt with related issues but remained largely disconnected from the main body of the sustainability transitions literature until now. Such an exploration is useful as it will contribute to broadening the field of transition studies, help it to remain reflexive and critical, as well as to exchange useful insights and concepts between transition studies and relevant other fields. As such the second aim of this special section is to explore a new agenda for future research on sustainability transitions. Furthermore, the introductory paper to the special issue identifies the emergent contours and dynamics of sustainability transitions research. To this end, it reviews the general concept of sustainability transitions and explores its origins in the literature and conducts a systematic, quantitative literature review with which we identify key journals and topics.

Special issue on 'Places and spaces of sustainability transitions'

Forthcoming in: *European Planning Studies*. Contains 6 papers.

Guest editors Lars Coenen (Lund University, Sweden and NIFU, Norway) & Bernhard Truffer (EAWAG, Switzerland & University of Bern)

Sustainability transitions have until recently remained at the periphery of economic geography and regional studies. The question where sustainability transitions take place, and why, has remained largely off the radar in the otherwise burgeoning field of sustainability transitions. This special issue takes stock with this gap by looking particularly into the spaces and scales of sustainability transitions. More generally, it aims to extend an invitation to geographers and scholars of regional studies to engage more actively with this topic in order to better understand and explain the different spatial forms of sustainability transitions and its interplay with uneven regional development. Taken together, the collection of papers provide a richer understanding of the different ways by which spatial contexts actively and substantially shape transition processes, and, as a consequence, emphasizes the multiplicity and heterogeneity of transition pathways. Moreover, the papers illustrate the need to take the trans-local character of global sustainability transitions more serious. On a more critical perspective, some of the papers also outline how a spatial engagement with sustainability transitions invites to ask questions that have so far found little attention in the incumbent literature and/or to embrace alternative concepts –beyond that of MLP and TIS – to better conceptualize the spatiality of transitions. The papers in this special issue have been selected from a session stream organized at the AAG (American Association of Geographers) conference 2010 in Washington DC dealing with the “geography of sustainability transitions”. The special issue is scheduled for publication March 2012.

Truffer, B. and Coenen, L., 2012, 'Environmental innovation and sustainability transitions in regional studies' *Regional Studies*, 46(1), 1-21

Sustainable development and environmental innovations have received increasing attention in regional studies and the related literature. In how far sustainability concerns might also lead to fundamental transformations in technologies, industries and lifestyles (so-called sustainability transitions) has, however, found much less resonance. Sustainability transitions have been in the focus of scholars from the field of innovation studies. However, until recently, these approaches mostly disregarded spatial aspects. This paper therefore maps out a field of future research - the geography of sustainability transitions - that might be beneficially laboured by both traditions. The paper introduces the core concepts, but also

the limitations of the transitions literature. After reviewing salient lines of sustainability-related research in regional studies, the paper specifies promising research areas at the interface between both fields. Empirical illustrations will be provided from recent work in sustainability transitions research venturing into this interface.

Greenwood, D., 2012, 'The challenge of policy coordination for sustainable sociotechnical transitions: the case of the zero-carbon homes agenda in England', *Environment and Planning C: Government and Policy* 30(1), 162- 179

Emerging in recent research on sociotechnical transitions towards a low-carbon economy is the question of the extent to which such transitions require centralised, intentional coordination by government. Drawing from Hayek's conceptualisation of coordination, I evaluate the effectiveness of policy for low-carbon and zero-carbon homes in England. A detailed analysis is presented of how policy makers address complex choices and trade-offs as well as significant uncertainty. Particular attention is given to those policy decisions which are widely agreed by stakeholders to cause distortive effects. The focus here on the impacts of policy definition and delivery in terms of multiple evaluative criteria can complement and enrich the more process-orientated cross-sector and multilevel analyses that predominate in existing research on policy coordination. Furthermore, the coordination problems identified yield further insights into the actual and potential effectiveness of policy processes in shaping complex sociotechnical.

Geels, F.W., 2012, 'A socio-technical analysis of low-carbon transitions: Introducing the multi-level perspective into transport studies', *Journal of Transport Geography* (in press, available online)

Climate change and deep cuts in CO₂ emissions require transitions to new kinds of transport systems. To understand the dynamics of these transitions, this paper introduces a socio-technical approach which goes beyond technology fix or behaviour change. Systemic transitions entail co-evolution and multi-dimensional interactions between industry, technology, markets, policy, culture and civil society. A multi-level perspective (MLP) is presented as a heuristic framework to analyze these interactions. The paper aims to introduce the MLP into transport studies and to show its usefulness through an application to the auto-mobility system in the United Kingdom and the Netherlands. This application aims to assess the drivers, barriers and possible pathways for low-carbon transitions.