

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

- Network news
- Calls
- Research
- Events
- Jobs & training
- Publications

Our ambition is to send these newsletters about four times a year. For the next newsletter we welcome all members to submit news items in any of the above categories either using the website www.transitionsnetwork.org (submit projects, output or news), or sending 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

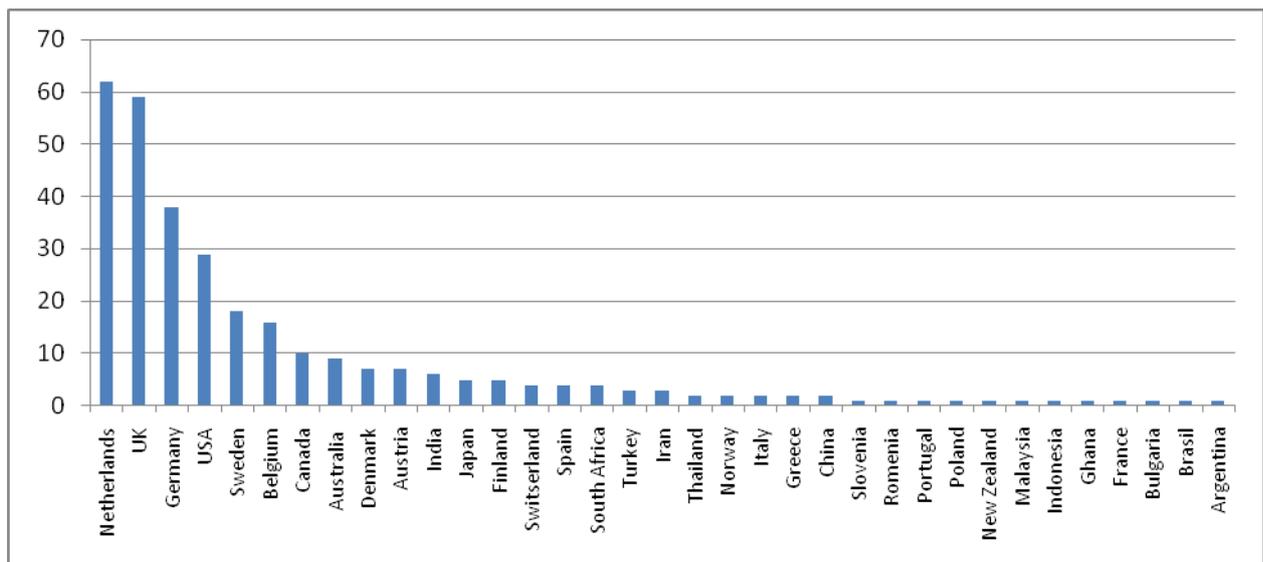
Network News

Any news related to ongoing activities of the STRN steering group

STRN now has more than 300 members

Since the launch of the Sustainability Transitions Research Network in the summer of 2010 the number of members has been increasing rapidly. In October STRN had accepted its 200th member, and now the number has passed 300. Here is a small breakdown in numbers:

- About half of the members originate from the Netherlands (20%), the UK (19%) and Germany (12%), and another quarter from the USA (9%), Sweden (6%), Belgium (5%) and Canada (3%);
- Other countries outside Europe and Northern America include among others Australia, India, Japan and South-Africa;
- The energy domain is ranked highest with 242 members indicating an interest in this area. This is followed by the build environment (138), mobility (126), agriculture (111) and water (93). Another 119 members indicated interest in domains not listed here.
- The most popular theme is 'Governance, power & politics' with 241 members indicating an interest. This is followed by 'Implementation strategies' (180), 'Civil Society, culture and social movements' (164), 'Synthesizing perspectives and approaches to transitions' (152), 'Firms and industries' (125), 'Modelling of transitions' (101) and 'Geography of transitions' (98).



First issue of “Environmental Innovation and Societal Transitions”

The first issue of the new journal "Environmental Innovation and Societal Transitions" (EIST) is in full preparation. It will contain some 20 articles by established researchers, including a few survey-type of papers and many brief contributions with exciting views on a range of core topics. Together they offer a great diversity of themes including complementary as well as competing viewpoints on sustainability transitions. Some 10 articles have already been accepted while the remaining ones are currently being revised. We welcome everyone to submit theoretical, empirical and policy studies for later issues of EIST. We guarantee a quick, fair and high quality review process.

Notice that early articles in a new journal generally receive many readers and citations. During the first year, EIST will be made available in an Open Access modality on ScienceDirect. In addition, EIST papers will immediately be indexed in Scopus (a fully referenced database of citations to academic articles which is very complete, especially for the social sciences). This will guarantee quick and wide diffusion of articles published in

EIST. A few forthcoming articles are already available online. Please promote EIST among your PhD students and colleagues.

For more details on the journal and requirements for submissions, see www.elsevier.com/locate/eist.

2nd International Conference on Sustainability Transitions

Following the call for papers, The 2nd International Conference on Sustainability Transitions 'Diversity, plurality and change: breaking new grounds in sustainability transition research' to be held in Lund, June 13-15th 2011, has received 292 abstracts from colleagues in 29 countries. Each abstract has been reviewed independently and anonymously by two members of the international review committee (consisting of the STRN steering group and the program committee), allotted on a random basis. In case of considerable disagreement by the initial reviewers, the abstract has additionally been assessed anonymously by members of the program committee. Given restrictions of conference space and time, only the 222 highest ranked abstracts could be accepted. A program will be made public in the course of the next months after all participants have registered for the conference. For more information please visit: www.ist2011.nu

Calls

Calls for upcoming relevant events such as workshops and conferences

Strategies of Transition towards Green, Post Carbon Societies

Session proposal, 4S meeting 2011, Cleveland, Ohio

Convenors: Vivian A. Lagesen and Knut H. Sørensen, Norwegian University of Science and Technology (NTNU)

Sociotechnical systems like energy systems are often understood as stable and difficult to transform. Concepts used to describe such inertia and the challenges to pursuing change include technological momentum (Hughes 1987), path dependency (David 1985), lock-in (Arthur 1988) and entrapment (Walker 2000). Such concepts seem to aptly characterise present energy systems quite well, making the achievement of sustainable energy transitions appear an overwhelming challenge. There is a need not only for new sustainability-producing technologies but also for actors to engage productively with these technologies through distributed action. No single actor, including government, is able to manage the challenges on its own.

Transition is a conception of a whole-sector, multi-level process producing dramatic and lasting changes in production and consumption patterns and practices. It therefore requires complex multi-level governance; it is not just a matter of injecting single technological innovations and expecting them to take off. In this session, we shall address analytically the challenges related to understanding sustainable transition efforts, drawing broadly on STS scholarship. The emphasis is on sociotechnical institutions (understood at all levels) that need reforming and may act as obstacles to transition, providing entrenchment, lock-in, political resistance, economic obstacles, inadequate infrastructure, etc. The aim is to contribute to STS-based transition theory development that also improves the understanding of what sustains current unsustainable practices.

Deadline April 1st !

Research

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

Power dynamics in the new gas and green raw material transition

Prof.dr. John Grin (University of Amsterdam) and prof.dr. Marko Hekkert with dr. Jan Faber and dr. Simona Negro of the University of Utrecht, received a grant for their research proposal "Power Dynamics in the new gas and green raw materials transition." Energy

transition processes take a very long time. One of the reasons is the huge inertia of existing systems and the unwillingness of very powerful regime actors to quickly move into new directions. Entrepreneurs with novel ideas often do not possess the power to break through these inert techno-institutional complexes. Therefore they need to develop specific strategies in order to become successful. The main research question of this proposal is: What are the main strategies deployed by both regime players and entrepreneurs to either slow down or accelerate energy transition processes and what strategies are optimal for the government to deal with these? We will study three empirical domains that strongly differ in the structure of the incumbent regime: the automotive sector, the oil and gas regime and the built environment.

Experimenting for sustainability in India and Thailand

In the new program 'Experimenting for sustainability in India and Thailand' 4 PhD researchers and 1 post-doc will do research on the role of sustainability experiments in mobility and electricity sectors in India and Thailand. In this program, which will run for four years, the Eindhoven University of Technology collaborates with the Institute of Environmental Studies (IVM) in Amsterdam (Netherlands), Chiang Mai University in Chiang Mai (Thailand) and Jadavpur University in Kolkata (India). More information can be found here: <http://www.sustainabilityexperimentsasia.org/> (or contact Rob Raven at r.p.j.m.raven@tue.nl)

Low carbon innovation politics

In a new project, Eindhoven University of Technology collaborates with SPRU (Science & Technology Policy Research) in Brighton (UK). In this three year research project the concept of 'protective space' will be systematically unpacked and its politics will be analysed. The project will study long-term dynamics in the development of solar electricity, off-shore wind energy and carbon capture and sequestration in both the UK and the Netherlands. More information can be found here <http://www.lowcarbonpolitics.org/> (or contact Rob Raven at r.p.j.m.raven@tue.nl)

InContext:Individuals in Context

Funded under the 7th Framework Programme of the European Union, the research project InContext, aims to identify drivers and barriers for sustainable behaviour on an individual and collective level. It assumes that both individual and collective behaviors respond to an external context (like social norms, policies, and infrastructure) and an internal context (like needs, values and priorities) which is why both have to be taken into account when aiming for sustainable development.

In one part of the project, DRIFT and its consortia partners are developing a methodological approach, called the community arena. The community arena is a co-creation tool for sustainable behaviour by local communities and builds upon the insights of transition management and backcasting as well as literature on inner/outer contexts of behaviour and social learning. This approach is to be implemented in three pilots in the Netherlands, Germany and Austria. More information can be found here: <http://www.incontext-fp7.eu>

Interreg funded project: MUSIC

MUSIC (Mitigation in Urban areas: Solutions for Innovative Cities) is a new cooperation between European cities and research institutes in Northwest Europe. MUSIC aims to reduce CO2 emissions with 50% in the partner cities Aberdeen, Montreuil, Gent, Ludwigsburg and Rotterdam in 2030. Besides these five cities, the research institutes the Dutch Research Institute For Transitions (DRIFT, Erasmus University Rotterdam) and Public Research Centre Henri Tudor (Luxembourg) are partners in the project.

The MUSIC project focuses on reducing CO2 emissions and mitigating climate change. Within the MUSIC project, the cities of Ghent, Aberdeen, Ludwigsburg, Montreuil and Rotterdam develop city specific transition networks and agenda's in the area of climate and energy.

The CO2 reduction challenges cities face are mainly institutional and organisational: How can policy be translated into concrete and innovative projects? How to get to a joint ambition which is not only endorsed by a variety of parties, but also motivates them to contribute to the realization? What role should companies, research institutes and the government play? To answer these questions, a transition from traditional to innovative ways of cooperation is needed with regard to urban sustainability.

DRIFT will assist the cities in their urban transition management strategies tailored to the specific context and challenges of each city. The approach includes a series of "arena-sessions" with several frontrunners from all kinds of backgrounds (businesses, government, research institutes, citizens). This results in a local sustainability vision, transition paths, an action agenda and new projects, collaborations and experiments. The MUSIC project therefore also will provide an important empirical basis to elaborate the methodology of urban transition management and apply it in different (national) socio-political contexts.

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

Events

Review of events interesting to the STRN community

Workshop on Transitions at recently established ACCIS Research Centre at Aston University, Birmingham

ACCIS (Aston Centre for Critical Infrastructure and Services) is a collaborative interdisciplinary research centre at Aston University, set up in 2009, and bringing together academics from a variety of disciplines. As one of its take-off activities, it ran a workshop "Researching the transition towards a low carbon society" at Aston University on 23 November 2010. The one-day workshop focused on issues related to the transition to a low carbon society such as renewable energy provision, transformation of infrastructures, smart grids and other. Speakers included various members of our STRN network, including Fred Steward, John Grin and Boelie Elzen. More information at:

<http://www1.aston.ac.uk/aston-business-school/research/centres/accis/news-events/transitions-workshop/>

Regional Studies Annual Lecture

Bernhard Truffer, a member of the STRN steering group, will provide the Regional Studies Annual Lecture at the RSA Annual International Conference in Newcastle, 17th-20th April, 2011. He also gave a lecture recently at Clark University, which holds one of the major geography departments in the US. Both events show an increasing interest from geographers in transition studies.

Smart CSO conference, London 14-15th of March 2011-03-25.

Smart CSOs is a community of practice consisting of leaders from civil society organisations (CSOs), academics and funders exploring how CSOs can become stronger change agents towards the 'Great Transition' to a sustainable society and economy. In their report "Effective change strategies for the Great Transition. Five leverage points for civil society organisations" they also refer to field of transition studies. The Smart CSO conference in London was a very inspiring meeting of CSO practitioners and academics, and joined by some members of the STRN-network. For more information see: <http://www.smart-csos.org/>, and the interactive "Ning"-website: <http://smart-csos.ning.com>.

Jobs and Training

Job and training announcements of positions relevant for the STRN community

Job Opportunity at Schumacher College: Head of Economics, South Devon, UK.

Schumacher College is an international educational institution that offers short courses and vocational and postgraduate courses relating to environmental and social sustainability. A new MA in Economics for Transition: towards low carbon, high well-being and resilient economies will start in September 2011. This new post will jointly lead the development of economics teaching and learning, research and publications at the College as well as being a member of the Senior Management Team. This is a unique opportunity to help shape and deliver this ground-breaking new MA programme. Applicants will have knowledge of alternative economic approaches in theory and practice; experience in participatory teaching and learning methods; and a proven track record in publications and research. To apply please visit our website <http://www.dartington.org/jobs> or email recruitment@dartington.org. For an informal discussion about the post please call Julie Richardson on +44 (0)7815509165 or email julie.richardson@schumachercollege.org.uk. Closing date: Monday 4th April (noon). Interviews: 14th April or 15th April. For further information about Schumacher College and the MA in Economics for Transition please visit <http://www.schumachercollege.org.uk>

New publications

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

Patrick Huntjens got his PhD on Transitions in Water Management

On November 17, 2010, Patrick Huntjens finalized a PhD-thesis (magna cum laude) in Complex System Sciences / Public Administration and Policy at the University of Osnabrück in Germany. The title of the thesis is 'Water Management and Water Governance in a Changing Climate – Experiences and Insights on Climate Change Adaptation in Europe, Africa, Asia and Australia'. His study, sponsored by the Newater project, was on water governance and climate change adaptation in nine river basins in Europe, Africa, Asia and Australia. First supervisor was Prof. Dr. Claudia Pahl-Wost (Un Osnabrück), while John Grin (Un Amsterdam) acted as a second supervisor. More information at:

http://www.pap.wur.nl/UK/newsagenda/news/Promotion_Patrick_Huntjens.htm

J. van den Bergh & G. Kallis, "Evolutionary Policy"

Papers on Economics and Evolution # 0902, Evolutionary Economics Group, Max Planck Institute, Jena, Germany

<https://papers.econ.mpg.de/evo/discussionpapers/2009-02.pdf>

Abstract: We explore the idea of public policy from the perspective of evolutionary thinking. This involves paying attention to concepts like diversity, population, selection, innovation, coevolution, group selection, path-dependence and lock-in. We critically discuss the notion of evolutionary progress. The relevance of evolutionary dynamics is illustrated for policy and political change, technical change, sustainability transitions and regulation of consumer behaviour. A lack of attention for the development of evolutionary policy criteria and goals is identified and alternative choices are critically evaluated. Finally, evolutionary policy advice is compared with policy advice coming from neoclassical economics, public choice theory and theories of resilience and adaptive management. We argue that evolutionary thinking offers a distinct and useful perspective on public policy design and change.

J. van den Bergh, "Environmental and Climate Innovation: Limitations, Prices and Policies"

Papers on Economics and Evolution# 1023, Evolutionary Economics Group, Max Planck Institute, Jena, Germany

<ftp://papers.econ.mpg.de/evo/discussionpapers/2010-23.pdf>

Abstract: There is currently much hope about environmental innovation and green technologies, notably as a response to the threat of climate change. This paper offers a critical perspective on the role of technological innovation to solving environmental problems,

based on considering empirical economic studies, energy and environmental rebound, the energy return on energy investment (EROEI) of alternative energy technologies, and potential crowding out effects. Features of green technologies, motives of green innovators, and the role of technological diversity are discussed. This is followed by an examination of the desirable mix of environmental and innovation policies to stimulate environmental innovation, to escape current and to evade early new lock-ins, and to avoid the occurrence of a “green paradox”. This involves an evaluation of specific policy instruments from an environmental innovation angle. An extended argument is offered to clarify that environmental (CO₂) pricing is crucial – even though insufficient – for environmental innovation to deliver definite solutions. It is further stressed that environmental innovation (policy) is no substitute for environmental regulation.

Avelino, F. and Rotmans, J. (2011), “A dynamic conceptualization of power for sustainability research”, *Journal of Cleaner Production*, 19(8):796-804.

Abstract: This paper takes up the challenge of providing a conceptual power framework to be used in the context of sustainability research. First, challenges of sustainability research are discussed by focusing specifically on recent insights from Integrated Sustainability Assessment (ISA), and on that basis some requirements for concepts to be used in sustainability research are postulated. It is argued that two of the most important aspects of sustainability assessment research are the long-term dynamics of change and an interdisciplinary paradigm. Second, a dynamic power framework is presented that was developed in the context of research on socio-technical sustainability transitions, including the basics of this power framework as well as some empirical illustrations. Third, it is discussed how the presented power framework deals with time, change and long-term dynamics, and how this contributes to the state-of-the-art. Fourth, it is indicated how the power framework integrates interdisciplinary and ‘interparadigmatic’ research requirements, and how this contributes to the state-of-the art. In conclusion, the arguments are summarized and some challenges for future research are distilled.

De Haan, J. and Rotmans, R. (2011), “Patterns in transitions: Understanding complex chains of change”, *Technological Forecasting & Social Change*, 78 (1): 90–102

Abstract: This article presents a multi-pattern approach for the description and understanding of the dynamics of societal transitions. The central idea is that any transition path can be considered a concatenation of patterns. Although theorising on transitions has advanced greatly, a coherent and integral approach was still lacking. Therefore, the current conceptual language of transitions is reframed and expanded from a complexity view on societal systems. The resulting theoretical framework straightforwardly leads to the identification of the patterns presented. The Dutch healthcare system is used to demonstrate how this multi-pattern approach could be used to describe transitions and make storylines. Furthermore a typology of transition paths derived from this approach is presented as another way in which these patterns may be used.

Coenen, L., Raven, R.P.J.M., Verbong, G.P.J. (2010), Local niche experimentation in the energy transition: a theoretical and empirical exploration of proximity advantages and disadvantages, *Technology in Society* 32(4), 295-302

Abstract: This paper discusses how the approach of Strategic Niche Management (SNM) relates to proximity advantages in innovation processes as identified in the geography of innovation literature. The latter claims that the locations where innovation emerge and thrive are not coincidental, but that they follow certain patterns and explanatory logics. Such specific attention for explaining locations is not explicitly present in SNM, although this literature makes claims about the importance of experimentation in local settings, and local and global dynamics. Hence a confrontation of both literatures is thought to be promising. The paper draws on a theoretical discussion and a case study about aquifer thermal energy storage to conclude (1) that there is sufficient evidence for proximity dimensions in niche development; (2) that taking proximity dimensions seriously in SNM helps to unpack

processes of upscaling and aggregation; (3) that literature on proximity and innovation can benefit from a more agency-based and dynamic perspective on proximity advantages; and (4) that there is a bias in proximity literature towards advantages of proximity while neglecting potential disadvantages for innovation, aggregation and upscaling.

PhD on transitions in Dutch water management

On March 18, Marlous Blankesteyn defended her dissertation (advisers: John Grin and Chunglin Kwa) at the University of Amsterdam. The dissertation discusses the changing role of knowledge, and experts, in the transition in Dutch water management over the past four to five decades. An English summary of the dissertation (in Dutch) may be found in http://home.medewerker.uva.nl/m.l.blankesteyn/bestanden/sv_en_ps.pdf

Elzen, B., Geels, F.W., Leeuwis, C., and Van Mierlo, B., 2011, 'Normative contestation in transitions 'in the making': Animal welfare concerns and system innovation in pig husbandry (1970-2008)', *Research Policy*, 40(2), 263-275

Abstract: Previous studies of system innovations mainly focused on historical cases that were driven by commercial motivations of pioneers and entrepreneurs. This article investigates a system innovation in the making that is driven by normative concerns, such as sustainability or animal welfare, initially formulated by outsiders like special-interest groups. Our central research question is: How, when and why is normative contestation of existing regimes effective in influencing the orientation of transitions in the making? The conceptual framework enriches innovation studies and the multi-level perspective with insights from social movement theory (SMT) and political science. SMT is used to analyse the build up of normative pressure (through framing, resource mobilization, and political opportunity structures). From political science we use the notion of multiple streams, in our analysis a problem, regulatory, market and technology stream. The research design consists of a comparative case study of pig husbandry systems. One case analyses the sub-sector of pregnant sows where normative pressures, after several decades, led to the changes advocated by the contestants. The second case concerns the sub-sector of pig fattening where normative pressure was less successful. The difference is partly explained by the normative pressure for pregnant sows being larger than for fattening pigs. The other part of the explanation is that in the first case normative pressure aligned better with the three other streams (regulatory, market and technology) to lead to the changes desired by the contestants.

Berkers, E. and Geels, F.W., 2011, 'System innovation through stepwise reconfiguration: The case of technological transitions in Dutch greenhouse horticulture (1930-1980)', *Technology Analysis & Strategic Management*, 23(3), pp. 227-247

Abstract: Although transitions are usually thought of as technological substitution processes, the article shows that stepwise reconfiguration is more likely for supplier-dominated sectors. In this transition pattern, novelties are initially adopted as 'modular innovation' into existing systems and subsequently reconfigure the basic architecture through new combinations of old and new elements. Incumbent actors survive these transitions through learning, acquisition of new competencies and interactions with suppliers of knowledge and innovations. To develop these ideas, we used Pavitt's innovation typology to select a case study from his supplier-dominated category: greenhouse farming. The article makes a techno-economic analysis of the overall transition pattern in Dutch greenhouse horticulture (1930-1980) and a socio-institutional analysis of the knowledge flows in the sectoral innovation system. 'Innovation cascades' are identified as a particularly important mechanism in reconfiguration transitions.

Romijn, H.A., Caniëls, M.C.J., The Jatropha biofuels sector in Tanzania 2005-2009: Evolution towards sustainability? *Research Policy* 40(4), 618-636

Biofuel production has recently attracted much attention. Some anticipate substantial social and environmental benefits, while at the same time expecting sound profitability for investors. Others are doubtful, envisaging large trade-offs between the pursuit of social, environmental and economic objectives, particularly in poor countries in the tropics. The paper explores these issues in Tanzania, which has been an African forerunner in the cultivation of a bio-oil shrub called *Jatropha curcas* L. We trace how isolated *Jatropha* biofuel experiments developed since early 2005 towards a sectoral production and innovation system, and we investigate to what extent that system has been capable of developing and maintaining sustainable practices and producing sustainable outcomes. The application of evolutionary innovation theory allows us to view the developments in the sector as a result of evolutionary variation and selection on the one hand, and revolutionary contestation between different coalitions of stakeholders on the other. Both these processes constitute significant engines of change. While variation and selection are driven predominantly by localised technical and agronomic learning, the *Jatropha*-driven dynamics are highly globalised and occur primarily as a result of reflexive learning about problematic sustainability impacts. The sector is found to have moved some way towards a full sectoral innovation and production system, but it is impossible to predict whether a viable sector with a strong “triple bottom line” orientation will ultimately emerge, since many issues surrounding the social, environmental and financial sustainability still remain unresolved, especially relating to local and global governance.