

This is the fourth 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,

Thank you for your enthusiastic response to my email, which asked you to send me information you wanted to share with the STRN-network. I received many replies, and have included the news items in this newsletter. It is good to see that the STRN-network is increasingly becoming *interactive* with members communicating with each other, via the newsletter and STRN-website (where you can still upload articles, news and announcements). There are plenty other encouraging signs which bode well for the transitions community.

Firstly, several special issues on transitions have just been published or are about to appear (see under publications). This signals that journal editors find the transitions topic important and interesting enough to dedicate previous journal space to it. The editorial to one of the special issues (Markard, Raven, Truffer, 2012) provides a bibliographic overview of the field, showing that transition papers are some of the highest cited papers in various journals (e.g. Research Policy, TASM, TFSC). This helps explain why editors are willing to host the transition debate in their journals. It is also important that some of the special issues venture out towards other disciplines (e.g. geography, transport studies). At the 2009 IST Conference in Amsterdam, James Meadowcroft already encouraged us to 'step out of our own niche' and engage with debates in mainstream disciplines and journals (e.g. on green growth, environmental policy, development). I think our community is now addressing that challenge. At the same time, it remains important to further develop a core body of ideas in our 'own' journal (Environmental Innovation and Societal Transitions) and some of the above-mentioned journals.

Secondly, transitions thinking is beginning to enter the mainstream. The UNEP's International Resource Panel recently published a new report titled 'Decoupling natural source use and environmental impacts from economic growth' (<http://www.unep.org/resourcepanel/>). The main authors (Mark Swilling and Marina Fischer-Kowalski) move the analysis from the traditional focus on global material flows and decoupling to a broader focus on transitions to more sustainable resource use. Section 3 explicitly mentions the 'need for system innovation' and discusses in some depth (p. 41) the MLP as a promising analytical framework. Another indication of mainstreaming is the new draft-call for the European Union 7FP. This call contains separate themes on the 'Transition to sustainable, low-carbon societies', 'Accelerating progress towards the Green Economy', 'Post-carbon cities in Europe: A long-term outlook', and 'Obstacles and prospects for sustainable lifestyles and green economy in Europe'. These themes (which are mentioned below in the newsletter) clearly signal an increasing interest in transition-related themes. I hope that members of STRN will take advantage of this opportunity and succeed in winning some of the research funding.

Thirdly, there are increasing numbers of workshops, research projects, and events that address transition-related topics. Some of these organized by STRN-members (see the items in this newsletter), but also other organizations are increasingly active in this area. While this offers some professional competition, I am confident that our community has sufficiently matured to make substantive and incisive contributions to these debates. The third International Sustainability Conference in Copenhagen (29-31 August) will be an important venue for these debates, and I look forward to seeing many of you there.

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

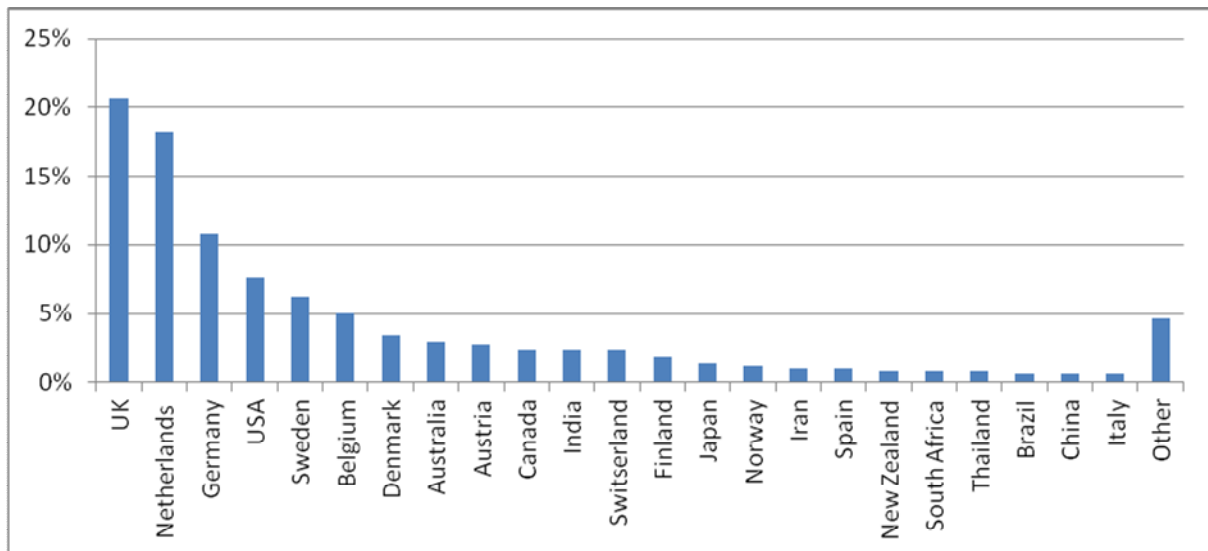
Network News

Any news related to ongoing activities of STRN

STRN now has 500 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 2010 STRN had accepted its 200th member, in March 2011 its 300th member, in October 2011 its 400th member and now the number has passed 500. Here is a breakdown in numbers:

- About three quarter of the members originate from the Europe. More than half of the members originate from the UK (21%), the Netherlands (18%) and Germany (18%).
- Another quarter comes from the USA (8%), Sweden (6%), Belgium (5%), Denmark (3%) and Australia (3%).
- An increasing number of STRN members originate from Asia and in particular India, Japan and Thailand, although these numbers are still rather small compared to European and North-American members.
- The energy domain is ranked highest with 384 members indicating an interest in this area. This is followed by the build environment (218), mobility (190), agriculture (154) and water (141). Another 161 members indicated interest in domains not listed here.
- The most popular theme is 'Governance, power & politics' with 385 members indicating an interest. This is followed by 'Implementation strategies' (282), 'Civil Society, culture and social movements' (265), 'Synthesizing perspectives and approaches to transitions' (227), 'Firms and industries' (205), Geography of transitions' (167) and 'Modeling of transitions' (161).



Rob Raven [R.P.J.M.Raven@tue.nl]

Announcing the new Grassroots Innovations website

I'm very pleased to tell you about our new and improved Grassroots Innovations website, which incorporates our blog and all our news updates, events and publications. This single site is now your one-stop-shop for news and updates on our research into sustainability from the bottom up: www.grassrootsinnovations.org

Our new site makes it much easier to find publications and news for specific projects, or across the portfolio of research we cover. Please have a look around and let me know your thoughts, or if you have any suggestions for improvement - there are always things to tweak! You can subscribe to our updates by email or RSS if you'd like, to be informed when new content is added.

Gill Seyfang [G.Seyfang@uea.ac.uk]

Next issue of the journal EIST (Environmental Innovation and Societal Transitions)

The fourth issue (vol. 3) of EIST will soon appear. It contains articles on the following themes: (<http://www.sciencedirect.com/science/journal/22104224>).

- Comparison of neo-Schumpeterian theory of Kondratiev waves and the multi-level perspective on transitions
- Patterns of governance for biofuel and hybrid-electric vehicle technologies
- Evaluation of energy storage technologies for integration with renewable electricity;
- A sustainability-oriented science system in Germany.

It will further include a book review. I would like to ask all STRN members to submit papers, cite published papers in EIST, and respond to the request in the previous newsletter to think about special issue themes. Unfortunately, we have had no response to the latter request.

Jeroen van den Bergh [jeroen.bergh@uab.es]

EU-FP7 calls on transitions-related research

The European Union has published draft-calls for the last round of FP7. Final calls will be published in July 2012. Several work-programmes contain themes that may lend themselves very well for research proposals by transition researchers. Below, I have summarised some of these themes. STRN-members may want to interact with each other to formulate possible proposals for the upcoming FP7 call.

COOPERATION THEME 8. SOCIO-ECONOMIC SCIENCES AND HUMANITIES

Activity 8.1: Growth, employment and competitiveness in a knowledge society – the European case

Area 8.1.1 Changing role of knowledge throughout the economy

- SSH.2013.1.1-1 Economic underpinnings of social innovations

Activity 8.2: Combining economic, social and environmental objectives in a European perspective – Paths towards sustainable development.

Area 8.2.1 Socio-economic development trajectories

- SSH.2013.2.1-1 Obstacles and prospects for sustainable lifestyles and green economy in Europe
- SSH.2013.2.1-2. Social entrepreneurship for innovative societies
- SSH.2013.2.1-4 The future of the welfare state (ERA-Net Plus)

Activity 8.3: Major trends in society and their implications

Area 8.3.2. Societal trends and lifestyles

- SSH.2013.3.2-1. Social Innovation – empowering people, changing societies?
- SSH.2013.3.2-3. The impact of the third sector on socio-economic development in Europe

Activity 8.4: Europe in the world

Area 8.4.1. Interactions and interdependences between world regions and their implications

- SSH.2013.4.1-2. Facing transition in the South and East Mediterranean area: empowering the young generation

Activity 8.5: The Citizen in the European Union

Area 8.5.1. Participation and citizenship in Europe

- SSH.2013.5.1-1. Citizens' resilience in times of crisis

Activity 8.7: Foresight activities

Area 8.7.1 Wide socio-economic foresight on key challenges

- SSH.2013.7.1-1. Post-carbon cities in Europe: A long-term outlook

COOPERATION THEME 6. ENVIRONMENT (INCLUDING CLIMATE CHANGE)

ENV.2013.6.1-6 Economics of adaptation to climate-change

ENV.2013.6.2-3 Transition to sustainable, low-carbon societies

ENV.2013.6.2-5 Urban biodiversity and green infrastructure

ENV.2013.6.5-1 Accelerating progress towards the Green Economy

ENV.6.5-2 Mobilising environmental knowledge for policy and society

COOPERATION THEME 5 ENERGY

II.7. Activity Energy.7: Smart Energy Networks

II.7.2. Area Energy.7.2: Pan-European Energy Networks

Topic ENERGY.2013.7.2.4: Ensuring stakeholder support for future grid infrastructures

II.8. Activity Energy.8: Energy Efficiency and Savings

II.8.8. Area Energy.8.8: Smart Cities and Communities

Topic EeB.ENERGY.2013.8.8.1: Demonstration of optimised energy systems for high performance-energy districts

II.9. Activity Energy.9: Knowledge for Energy Policy Making

II.9.2. Area Energy.9.2: Scientific and Socio-Economic Support to Policy

Topic ENERGY.2013.9.2.1: European scientific multidisciplinary "think-tank" to support energy policy and to assess the potential impacts of its measures.

Flor Avelino [avelino@fsw.eur.nl]

Event announcements

Calls for upcoming relevant events such as workshops and conferences

Update on the third International Conference on Sustainability Transitions (Copenhagen, 29-31 August, 2012)

We are very excited to provide you with an update of the Third International Conference on Sustainability Transitions. The local organization committee and scientific advisory board are working hard to make the conference stimulating and intellectually exciting. We received 262 abstracts and accepted 190 of them (following a double blind review process) to ensure high quality papers. The selected papers promise to: a) explore theoretical advances (e.g.

crossovers to actor-network theory, institutional theory, discourse theory), b) investigate new empirical sites (e.g. cities, finance) and sectors (water, transport), and c) analyze new themes (e.g. intermediary actors, grassroots, incumbent actors, upscaling, role of science). So, while some papers aim to consolidate and elaborate existing frameworks (e.g. MLP, TIS), others take transitions thinking forward in new directions. We are also exploring the idea of "theoretical parliaments" as a way of stimulating a rich intellectual exchange between different theoretical approaches. Overall, it thus promises to be an exciting conference, situated in the beautiful city of Copenhagen. A draft-version of the program is now available at <http://ist2012.dk/index.php/IST/IST2012/schedConf/program>. We look forward to welcoming you in Copenhagen in a few months time.

Andres Felipe Valderrama Pineda [afvp@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/>

Special session: The role of models in governing transition processes towards sustainable resource management

**At the 6th International Congress on Environmental Modelling and Software (iEMSS),
1 - 5 July 2012, Leipzig, Germany**

(organised by: Johannes Halbe, Dominik Reusser, Claudia Pahl-Wostl, Jan Sendzimir)

Over the past decades, the vision of a sustainable resource management emerged in the scientific community and the public at large. The design properties characterising "sustainable" resource management systems are still debated and the delineation of pathways towards sustainability and the implementation of associated measures are challenged by uncertainty as well as structural barriers and conflicts among affected stakeholders. The influence of environmental authorities to steer the management of resources in a sustainable direction is especially limited when multiple actors have an effect on the resource base.

This session will address the role of models in the governance of transition processes towards sustainable resource management. Can model based understanding of past transitions support practical decision-making? Are model-based diagnoses of current resource management problems helpful to identify barriers and drivers of change, and to deal with conflicting interests and world-views? Can explorative models help to define management strategies and pathways towards sustainability?

More information can be found at: http://www.iemss.org/sites/iemss2012/sessions_E.html

Event Reviews

Review of events interesting to the STRN community

TIS workshop in Utrecht

April 17-19 an international workshop was organised by Marko Hekkert and Jochen Markard at Utrecht University on discussing conceptual challenges related to the Technological Innovation Systems framework. With very little presentation time and maximum discussion time, the workshop led to vivid and stimulating debates about the TIS framework. We identified important challenges that deserve attention in further research, identified different avenues to move forward and discussed strategies on how to proceed. Scholars from Chalmers, EAWAG, LUND, Vienna and Utrecht contributed to the workshop.

Marko Hekkert [M.P.Hekkert@uu.nl]

Session stream on sustainability transitions at the AAG (Association of American Geographers) conference in New York, February, 24th – 28th 2012.

The AAG hosts a yearly conference, assembling around 7'000 geographers from all over the world. Lars Coenen and Bernhard Truffer organized (conjointly with Jim Murphy and David Gibbs) a stream of four sessions on sustainability transitions at this conference. We had twelve papers and a final roundtable discussion. All sessions were very well attended and participants showed a strong interest to engage with transition concepts more intimately. We therefore expect to see a strong rise of activity in the field of the geography of transitions.

Bernhard Truffer [Bernhard.Truffer@eawag.ch]

Book workshop on Routledge series on sustainability transitions

On 30 March 2012, there was a workshop at Eindhoven University of Technology where three news books were presented and discussed. These three books addressed sustainability transitions in auto-mobility, agri-food and energy. About 80 participants (from academia, policy and business) joined the workshop, which was characterized by lively discussions. These books are to a large part the outcome of the 5-years interdisciplinary Dutch research program KSI (Knowledge Network on System Innovation), which has now come to a close. So, the workshop was partly about looking back at these past five years and celebrating how successful KSI has been in getting a new topic on the agenda of policymakers and academics. Many theoretical approaches of the current STRN-network are somehow rooted in the KSI-program (as Jan Rotmans remarked). But the workshop also looked forward on the basis of the three books which empirically apply transitions thinking to important domains. While there is progress in all domains, they differ in speed. The transport domain may be the 'hardest case', with limited progress and much inertia. In the energy domain, progress is faster, with renewable energy emerging largely through upstream supply-side actions. In the agri-food domain, progress is also substantial, both through upstream action (with large retailers and food processing firms being committed to sustainability) and demand side action (although often more for reasons of taste and health than environmental sustainability). But in most domains progress may be too slow to meet the challenging sustainability targets that many governments have adopted. More studies of the drivers for change and the sources of stability are clearly needed. Systematic comparison between the three domains (transport, food, energy) is also an interesting topic that remains to be done. The workshop therefore concluded that there is enough work to keep us busy for another five years.

Frank Geels [f.w.geels@sussex.ac.uk]

New research projects

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

National sustainability centre

Except Integrated Sustainability is establishing a national sustainability center in Utrecht, the Netherlands, focused on systemic sustainable development. It will be driven by around 150 independent entrepreneurs, researchers, developers and artists, and function as a national hub, showcase for sustainable development and incubator for recent graduated entrepreneurs. It's a joint development between Except and the city of Utrecht, involving various partners around the city. Those interested in participating in its various programs, sponsorship or development may apply.

Tom Bosschaert [tom@except.nl]

The 'Integral Planning and Design in the southwest Delta' (IPDD) project

In October 2011 the (IPDD) project started in the Netherlands, specifying the challenges of spatial design in the context of societal complexity and sustainability transitions. The two-year NWO-funded project involves researchers from the Erasmus University of Rotterdam (public administration), Delft technical university (urbanism) and Wageningen agricultural university (Geographical Information Systems), as well as various research institutes and spatial design bureaus (PBL, Deltares, TNO, KNMI, Geonovum, H+N+S landscape architects, Must design). Taking the Dutch Rhine-Meuse delta as its laboratory, the interdisciplinary collaboration seeks to develop a method for integrated and complexity-sensitive spatial design for delta areas. As such, it responds to current calls for spatial concreteness in transitions studies.

For more information see <http://ipdd.verdus.nl/pagina.asp?id=61> or contact Bonno Pel (Erasmus University of Rotterdam), pel@fsw.eur.nl

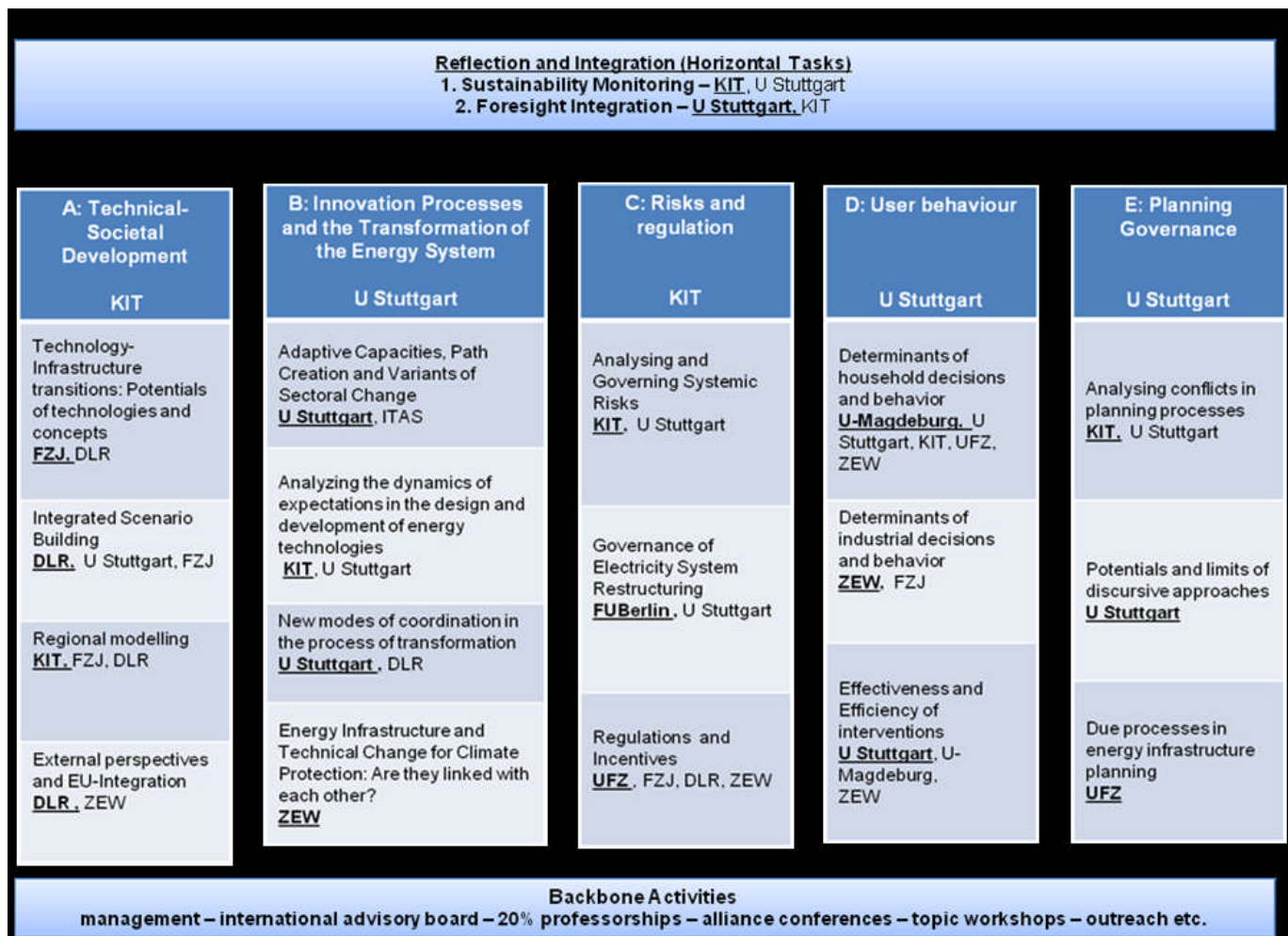
Project on macroeconomics, crisis and transitions

At Universitat Autònoma de Barcelona Jeroen van den Bergh has started a new project in which Dr. Miklós Antal (postdoc) and Ardjan Gazheli (PhD student) will be working on the topic of macroeconomics, crisis and sustainability transitions. This is part of a very large EU project coordinated by the Austrian Institute for Economic Research (WIFO, in Vienna). If others are undertaking projects on related themes we would be interested to exchange ideas and information.

Jeroen van den Bergh [jeroen.bergh@uab.es]

Start of a new Research Consortium in Germany "Energy-Trans"

October 2011 saw the start of a new research consortium in Germany masterminded by the Helmholtz Association (<http://www.helmholtz.de/en/>), Germany's largest research organization. The theme of the so called Helmholtz alliance (<http://www.energy-trans.de/>) reads "Future Infrastructures for meeting energy demands. Requirements of sustainability and social compatibility". The consortium which consists of three Helmholtz centres, three universities and the European Centre For Economic Research (Mannheim) is running 17 projects ordered into five thematic concentrations (see figure). A first workshop where several transition scholars will meet with the project consortium will take place July 5th and 6th in Karlsruhe.



The research consortium had been organized as a follow up action to the “Energiewende” announced by the German government after the Fukushima accident of 2011. Turning off nuclear reactors and achieving ambitious aims for carbon reductions requires innovative action by politicians, economic actors as well as citizens. The research projects intend to analyze under what conditions the Energiewende can actually be realized, what preconditions have to be met that a successful and sustainable transition can be achieved and with what unintended consequences one might have to cope with.

The researchers are a truly interdisciplinary lot. One can find engineers, physicists, lawyers, economists, psychologists, philosophers, political scientists, sociologists and may be more. The research consortium is open for and actually seeks cooperation with international partners who work on similar subjects.

Dr. Gerhard Fuchs [gerhard.fuchs@soz.uni-stuttgart.de]

Coastal Ecosystem and Changing Economic Activities: Challenges for Sustainability Transition along Chinese and South Asian Coasts (funded by Asia Pacific Network)

This project studies transitions in coastal systems, which are unique systems where land, ocean and atmosphere interact, and where 40% of people live. In the South Asian region marginal/poor community concentrate in coastal zones, where they are vulnerable to hurricanes, typhoons, storm surges, floods, tsunamis, earthquakes.

Coastal regions in the South Asian region are converting rapidly to urbanised systems and new infrastructures that facilitate trade in energy resources: coal, oil etc. These are often in conflict with traditional ecosystem based livelihood of existing communities.

This study assesses all types of economic activities and associated communities, new emerging activities driven by global changes, climate threats and interactions among ecosystem and human systems. Indicators for sustainability transition will be developed so as to categorise economic activities by sustainability ratings.

The major objectives are:

- a) to inventoriss key economic activities: traditional and new of selected coastal eco systems covering major climatic zones in four countries.
- b) to establish patterns of climate change and their indicators in the above regions in next five decades.
- c) to develop an ecology-economic model to be able to link climate change, impact on ecosystem services and status of coastal community.

For more information contact Professor Joyashree Roy (joyashreeju@gmail.com)

Towards a New Growth Path: Welfare, Wealth and Work for Europe

New EU-FP7 project: WWWforEUROPE: Towards a New Growth Path: Welfare, Wealth and Work for Europe

The new EU project coordinated by the Austrian Institute of Economic Research (WIFO) started on April 1st, 2012. The objective of the project is to provide the analytical basis for the need, the feasibility and the scope of a socio-ecological transition, to derive policy instruments for shifting Europe to a new "high road path", and the institutional changes needed at all policy levels. The Institute of Social Ecology (SEC) is involved in two work packages: "Assessing Past Transitions" and "Biophysical Scenarios for Resource Constraints".

<http://www.arbeiterkammer.at/bilder/d167/WWWforEurope.pdf>

Marina Fischer-Kowalski (Marina.Fischer-Kowalski@aau.at)

Employment 2025: How will multiple transitions affect the European labour market

New EU-FP7 project: NEUJOBS: Employment 2025: How will multiple transitions affect the European labour market. This project is coordinated by the Centre for European Policy Studies (CEPS) and started in 2011.

The objective of NEUJOBS is to imagine future, or rather various possible futures, under the conditions of the socioecological transition (and incorporating other key influences), map the implications for employment overall, but also in key sectors and relevant groups and integrate all of this together under a single intellectual framework. The Institute of Social Ecology (SEC) leads the workpackage on Socio-ecological transition and employment implications. The first report on "Socio-Ecological Transitions: Definition, Dynamics and Related Global Scenarios" was recently published.

<http://www.neujobs.eu/research-fields/socio-ecological-transition-and-employment-implications>

Marina Fischer-Kowalski (Marina.Fischer-Kowalski@aau.at)

Biofuels: Sustainable Innovation or Gold Rush?

This 4-year research project at Eindhoven University of Technology, the Netherlands, started in May 2011 with funding from the Dutch National Science Organisation (NWO) under its "Socially Responsible Innovation" programme. The research addresses major societal controversies surrounding the sustainability of biofuels, with a view to encouraging more sustainable practices through alternative organizational models and recommendations for better policy governance. The research brings together social scientists working in innovation studies and international development, ethicists, and environmental scientists, including researchers in Tanzania and India. Ongoing involvement by a panel of stakeholders drawn from the Dutch government, NGO community and private sector is also an essential dimension of the project. The main object of study is the trade-offs that frequently occur between the "people", "planet" and "profit" sustainability outcomes arising from biofuels production and consumption, and how these controversial outcomes are influenced by the organisation of biofuel supply systems (e.g., centralised plantations, decentralised outgrower supply chains, or local cooperative systems) and their institutional and policy governance. The main focus is on comparing *Jatropha curcas* oilseed projects in Tanzania and India, deriving strategic lessons for next-generation biofuels. For more

information see: http://w3.ieis.tue.nl/nl/groups/tis/tis_education/ctdg/tdg_research/biofuel_research/ or contact Henny Romijn (Eindhoven University of Technology) (h.a.romijn@tue.nl).

Jobs and Training

Job and training announcements of positions relevant for the STRN community

Assistant professor Utrecht University

The Department of Innovation Studies (Utrecht University) is looking for an assistant professor Sustainable Business and Innovation.

For more information see STRN website or:

<http://www.uu.nl/faculty/geosciences/en/facultystructure/vacancies/Pages/default.aspx>

Publications

Announcement of new publications such as article, PhD theses and books

PhD thesis: System innovation as Synchronization; innovation attempts in the Dutch traffic management field

On September 13th 2012 Bonno Pel (Erasmus University of Rotterdam, Governance of Complex Systems Research group, Dep. of Public Administration) will defend his Ph.D. thesis "System innovation as Synchronization; innovation attempts in the Dutch traffic management field". The research formed part of the Dutch KSI research program after system innovation and societal transitions. The thesis approaches system innovation in 'immanent' rather than transcendental fashion, i.e. through the perspective of situated actors. In-depth case studies after four innovation attempts and their translation sequences show the contested and tentative nature of system innovation 'in the making'. Through comparative analysis more generic translation dynamics are established, through which to understand and navigate system innovation. Key notion is 'synchronization' - the temporary attunement of translations that provides anchors to the innovation game.

For more information, please contact pel@fsw.eur.nl

Swilling, M. & Annecke, E. 2012. *Just Transition: Explorations of Sustainability in an Unfair World*. Tokyo: United Nations University Press & Cape Town: University of Cape Town Press.

Just Transitions addresses the challenge of transition to a more sustainable world from the perspective of the global South. It argues that unless the challenge of inequality is addressed directly as an integral part of an over-arching theory of transition, ecological modernization might well result in an unjust transition that may work for the environment but leave existing inequalities intact. The core theoretical framework consists of a synthesis of the work on industrial cycles by Carlota Perez and the work by Marina Fischer-Kowalski on socioecological transitions. Recognising 2009 as the year that marked the end of the post-WWII long-term development cycle, it is argued that the current 'polycrisis' is the prelude to the next long-term development which may well also be sustainable. The key condition that makes this possible is that the century-long decline in resource prices has come to an end. Decoupling growth and wellbeing from rising levels of resource consumption is seen as key to making the next long-term development cycle sustainable. Chapters address a range of global themes: how to green the developmental state, the dynamics of building more sustainable cities and why it is necessary to pay attention to agricultural soils. The last part of the book addresses various African cases, including a chapter that explains Sudan's 30 year civil war as a 'resource war' and serves as a sign of things to come if we don't make the transition to a more sustainable world. By contrast, South Africa's successful transition to democracy is critically assessed from a sustainability perspective. It is argued that unless

South Africa breaks from its dependence on the 'mineral-energy complex' its democratic institutions will be threatened. The final chapter is about a ten year project (initiated by the authors) to build South Africa's first socially mixed ecologically designed EcoVillage as a good example of a niche-level innovation that demonstrates in practice what sustainable living means.

Prof. Mark Swilling [Mark.Swilling@spl.sun.ac.za]

McCauley, SM and Stephens, JC 2012, 'Green Energy Clusters and Socio-Technical Transitions: Analysis of a Sustainable Energy Cluster for Regional Economic Development in Central Massachusetts, USA.', *Sustainability Science*, Forthcoming

As the societal benefits associated with transitioning to more sustainable, less fossil fuel-reliant energy systems are increasingly recognized by communities throughout the world, the potential of creating 'green jobs' within a 'green economy' is attracting much attention. Green energy clusters are increasingly promoted throughout the world as a strategy to simultaneously promote economic vitality and stimulate a sustainable energy transition. In spite of their emerging role in regional-scale sustainability planning efforts, such initiatives have not been considered within the sustainability transitions literature. This paper explores the development of one such regional sustainable energy cluster initiative in Central Massachusetts in Northeastern USA to consider the potential for such cluster initiatives to contribute to sociotechnical transition in the energy system. Since 2008, a diverse set of stakeholders in Central Massachusetts, including politicians, universities, businesses, local citizens, and activists, have been working toward facilitating the emergence of an integrated cluster of activity focused on sustainable energy. Through interviews with key actors, participant observation, and document review, this research assesses the potential of this cluster initiative to contribute to a regional socio-technical transition. The empirical details of this case demonstrate that sustainable energy cluster initiatives can potentially accelerate change in entrenched energy regimes by promoting institutional thickness, generating regional 'buzz' around sustainable energy activities, and building trust between multiple and diverse stakeholders in the region. This research also contributes to emerging efforts to better ground sociotechnical transitions in geographic space.

Teschner, N., McDonald, A., Foxon, T.J., Paavola, J., 2012, 'Integrated transitions toward sustainability: The case of water and energy policies in Israel', *Technological Forecasting and Social Change*, 79(3), 457 – 468

Transition Management literature has examined how long-term transitions could be directed toward greater sustainability. However, it has mostly taken a sectoral approach which neglects the potential relationships between environmental changes and policy dynamics in different sectors. This paper examines parallel and interrelated dynamics in the Israeli water and energy sectors by combining insights from the literature on policy dynamics, transition management, co-evolution, and policy integration. The developed approach examines how sectoral transitions may be coupled and technological regimes may co-evolve. Israel has battled water, energy and other scarcities from its formation. Consecutive dry years, the loss of stream flows, salinization of the coastal aquifer, and severe pollution are problems facing water managers, while air pollution, imported fossil fuels and carbon emissions are salient energy issues. Water and energy sectors are both in transition because earlier policies have resulted in socially-induced scarcity, degradation of environmental assets and loss of adaptive capacity to respond to future challenges. Current approaches to water and energy scarcities have evolved around technological configurations which emphasize traditional supply side solutions such as seawater desalination and additional power plants. They may be difficult to change without explicit integrative transitions management.

Bos, J.J. and Brown, R.R., 2012, Governance experimentation and factors of success in socio-technical transitions in the urban water sector, *Technol. Forecast. Soc. Change* (2012), forthcoming

The necessity of a shift towards more sustainable urban water management practice is widely acknowledged and advocated. Experimentation that enables social learning is regarded of high importance for realising such a change. For instance, literature on Transition Management suggests that governance, as opposed to purely technical, experimentation is considered a critical factor in achieving a socio-technical transition. When analysing the water sector it becomes clear that modern urban water systems have almost exclusively focused upon technological experimentation with little attention directed towards the importance of governance experimentation for social learning. Empirically little is known neither on how governance experimentation actually unfolds nor about its effectiveness for socio-technical transitions. This research paper presents a critical analysis of a unique process of governance experimentation within the Australian urban water sector which generated sufficient social-political capital to change an established water governance framework. Conclusions of this research reveal some theoretically conjectured processes, like deepening, broadening and scaling-up, are found in this contemporary, real-life example. Furthermore, factors which influenced the success of this governance experimentation process are revealed and the role of various forms of learning therein is described.

Van den Bergh, J.C.J.M. (2012). Effective climate-energy solutions, escape routes and peak oil. *Energy Policy* 46: 530–536.

Many well-intended climate-energy strategies are ineffective in the absence of serious environmental regulation. This holds, among others, for direct support of clean energy, voluntary energy conservation, technical standards on a limited set of products, unilateral stringent carbon pricing, and awaiting peak oil as a climate strategy. All of these suffer from “escape routes” that indirectly increase CO₂ emissions and thus make the original strategy ineffective. On the other hand, environmental regulation alone may lead to a myopia-bias, stimulating early dominance of cost-effective technologies and a focus on incremental innovations associated with such technologies rather than on radical innovations. Although adopting a partial viewpoint keeps the analysis simple, we urgently need a more inclusive systems perspective on climate solutions. This will allow the formulation of an effective climate policy package that addresses the various escape routes.

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