



ISIE News

International Society For Industrial Ecology

HAPPY 2012 TO ALL ISIE MEMBERS

Special points of interest:

- ISIE Sections update
- JIE News
- IE news from around the world
- Recent and Upcoming Conferences
- IE Training programs
- Special reports and publications
- Open positions
- Members News

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Dear ISIE Community,

Best Wishes for 2012 from the President and Executive Director

2011 was a good year for the ISIE, with a very successful conference, the formation of several new Subject Sections and further growth in membership. We are now looking forward to the Gordon Research Seminar and Conference in June – details later in this Newsletter – and to the next ISIE Conference at Ulsan, Korea in 2013.

The outcome of the elections held towards the end of 2011 was that Paulo Ferrao and Daniel Mueller have joined the Council and Troy Hawkins and Shellie Miller have joined the Nominating Committee. The full list of current Council and Nominating Committee members is given below.

We thank Gemma Cervantes and Seiji Hashimoto for their contributions to the Society's Council over the last three years, and Deanna Matthews for her work on the Nominating Committee. We are also grateful to the current chair of the Nominating Committee, Julia Steinberger, for her efforts in ensuring that the election process was smooth and efficient.

The Council has decided to make some changes to the nomination and election process from 2012, to make it more appropriate with the Society's growing membership. In future, a candidate for any elected position must be nominated by a member, and seconded by at least one other member. The ballot papers will show the names of nominators and seconders as well as each candidate's background and aspirations for the Society. The Nominating Committee will be asked to try to ensure that the candidates and continuing members broadly reflect the distribution of membership by geographical region and area of interest, and maintain a good gender balance.

We are also glad to welcome Melanie Quigley back to the Society's office at Yale from her maternity leave – see later in this Newsletter for pictures!

Greg Keoleian – President

Roland Clift – Executive Director

Updated ISIE Council and Nominating Committee Members

Council Members

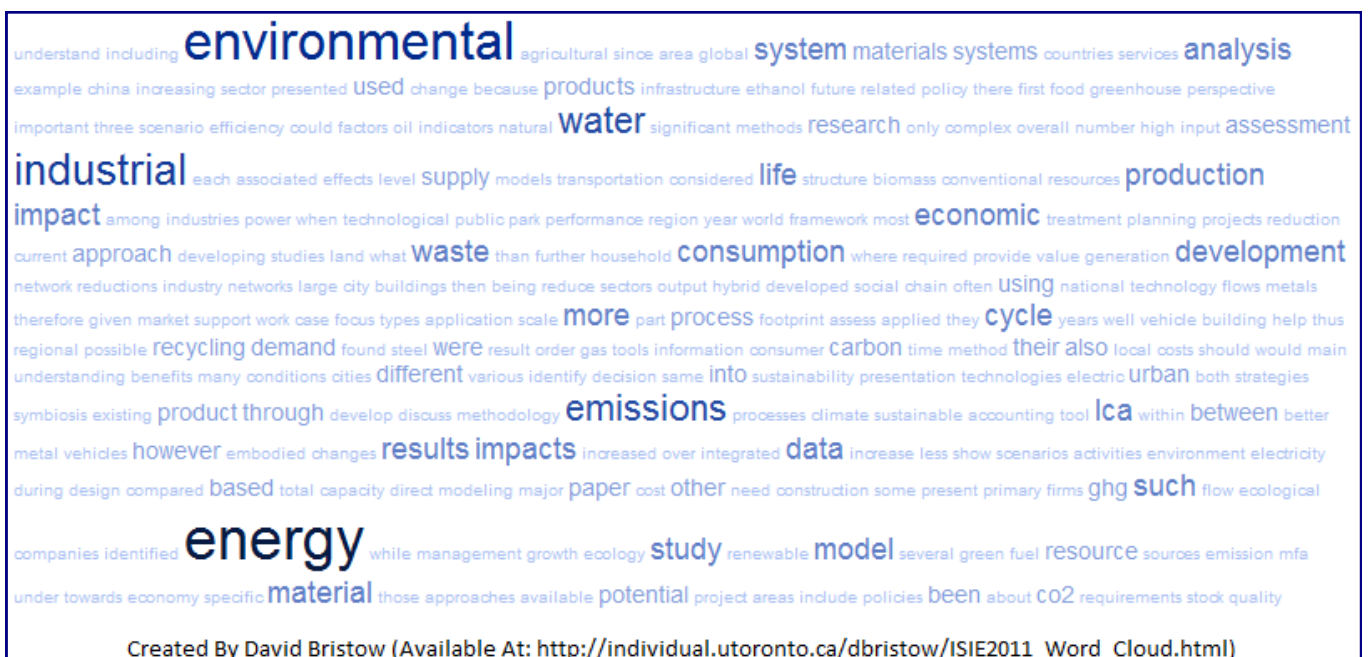
Greg Keoleian
 Marian Chertow
 Roland Clift
 Clint Andrews
 Anthony Chiu
 Chris Kennedy
 Reid Lifset
 Fujita Tsuyoshi
 Helga Weisz
 Heinz Schandl
 Valerie Thomas
 Daniel Mueller
 Paulo Ferrao

Nominating Committee Members

Roland Clift
 Julia Steinberger
 Edgar Hertwich
 Keisuke Nansai
 Roland Geyer
 Shelie Miller
 Troy Hawkins

The Berkeley ISIE Conference words Cloud

Thanks David Bristow for generating a word cloud from the abstracts from ISIE 2012 IN Berkeley. The word cloud includes all words used at least 50 times (excluding many common words such as 'the'). It gives some insight into the themes our society is examining as a whole.



Eco-Industrial Development (EID) section update, by Peter Lowitt

To welcome the first issue of this year, the Eco-Industrial Development (EID) Section of ISIE would like to extend its greetings to all its readers and look forward to an exciting and eventful 2012 ahead. The interesting conversations and dialogues from the 8th Annual ISRS symposium at San Francisco (which was held prior to ISIE Berkeley in June 2011) will continue to evolve and find their space in China this year as the 9th Annual Industrial Symbiosis Research Symposium (ISRS) will take place on October 19, 2012, in Tianjin Economic-Technological Development Area (TEDA), about 150 km southeast of Beijing. ISRS will be followed by the 3rd ISIE Asia-Pacific Meeting to be held in Tsinghua University, Beijing on October 20-21, 2012, which will focus on theme "Asia-Pacific Toward Eco-Industrial Development". <http://www.cern.org.cn/>.

The section board gladly welcomes you to these meetings and hopes to meet most of you there.

A very Happy New Year!

Student Chapter Update, by Susan Clark

The student chapter board is actively working to meet the needs of our ISIE student members. We are developing a student chapter newsletter that is written *by students for students* that will be available three times each year (i.e., spring, summer, and fall, to align with the semester system exercised at most Universities). The first edition is planned to be completed this March. The goal of the newsletter is to provide a platform for student members to stay connected and informed about current happenings of our diverse group. We will include an "Around the World" section that will feature research being conducted by students from unique geographical locations. We also plan on having a "Flashback" section that will highlight past active members of the student chapter. Additionally, information about upcoming conferences and events will be included. An event worth noting is our upcoming ISIE Future Faculty Forum scheduled for May 16th at the upcoming International Symposium on Sustainable Systems and Technology (ISSST) conference in Boston, MA. A panel of young faculty members from various Universities will share personal experiences about their transition from being a graduate student to a full faculty member. There will be time for students to ask the panelists specific questions and advice. The student chapter board is currently discussing possibilities for student events at upcoming conferences, including the IE Gordon Research Conference this June. If you have ideas for upcoming events, the newsletter, or would like to submit an abstract for our newsletter, please contact the student chapter board at isiestudentchapter@gmail.com.

For more information about the chapter, please visit: <http://www.is4ie.org/students>

JIE News, Reid Lifset

The *JIE* has some (extra!) special issues due to be published soon. The first issue of 2012 will be a special issue on industrial symbiosis edited by Don Lyons, Rachel Lombardi, Han Shi and Abhishek Agarawal. Because of the timeliness of this topic—industrial symbiosis has drawn the overt attention of the European Union, the OECD, and China among others—the *JIE* will be publishing a companion virtual issue. In the virtual issue, all the previous articles on industrial symbiosis from the *JIE* will be compiled and made freely available on the *JIE* web site. The combination of the special issue and the virtual issue will draw additional attention from both researchers and practitioners to one of the key topics in our field.

In the spring, the *JIE* will publish a “supplement” for the first time. A supplement is an extra issue—

beyond those normally published by a journal. The supplement, a special issue on meta-analysis in LCA edited by Garvin Heath, Miguel Brandão and Joyce Cooper, will contain a set of articles based on the “LCA Harmonization Project”, work carried out by the U.S. National Renewable Energy Laboratory (NREL), one of the U.S. national energy laboratories as well as submissions in response to an open call for papers. Meta-analysis, techniques used to combine the results of multiple studies, holds out the possibility to at least partly reconcile the vast number of LCAs that have been generated so that more consistent comparisons can be made across the studies. The supplement will be mailed together with volume 16, number 2 in April.

Do you receive the JIE table of contents alerts? If not, be sure to sign up to receive these emails or RSS feeds so that you always have the latest in industrial ecology research. Just go to <http://onlinelibrary.wiley.com/user-registration> and follow the instructions for registration. If you need assistance, contact the editorial office at indecol@yale.edu.

Special Publications

- A case study titled “Eco-industrial Park in Ulsan, Republic of Korea” now appears in United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) homepage. This work was carried out as a best practice of environmental management in industrial complex under a project “Eco-efficient and sustainable urban infrastructure development in Asia and Latin America”. The report can be viewed at: http://www.unescap.org/esd/environment/infra/suncheon/documents/Case_studies/ULSAN-Eco-industrial-Park.pdf
- Thanks to Susan Basen and [Web Geek Science](#), the 1997 report IK Wernick, JH Ausubel, [Industrial ecology: some directions for research](#) (with the Vishnu Group, The Rockefeller University and Lawrence Livermore National Laboratory) is available in a [Haitian Creole translation](#). The original report was an effort of IE pioneers to try to chart a research agenda for the field. <http://webhostinggeeks.com/science/rockefeller-ieagenda-ht>

New Project: 'ROBIN' - Role of Biodiversity in Climate Change Mitigation

The recently launched 'ROBIN' - Role of Biodiversity in Climate Change Mitigation - is a €7 million research project funded by the European Commission's 7th Framework Programme which runs until the end of 2015. In a consortium of 12 institutions led by the Centre for Ecology and Hydrology (NERC), U.K., ROBIN aims to quantify the role of biodiversity in terrestrial ecosystems of South and Mesoamerica in mitigating climate change, as well as evaluate the socio-ecological consequences of changes in biodiversity and ecosystem services under climate change. Drawing on a set of biophysical and socio-economic indicators, ROBIN will engage local and regional stakeholders at various stages: in the selection of indicators and in defining mitigation options, in developing future scenarios and in the testing of decision support tools. The Vienna Institute of Social Ecology (SEC) leads the workpackage related to stakeholder process and management options

Joint European Masters in Environmental Studies- Cities and Sustainability (JEMES CiSu)

The JEMES CiSu programme is the result of many years of close cooperation among the participating partners, as an Erasmus Mundus embedded in the European Consortium of Innovative Universities and the already existing Erasmus Mundus Master programme in Environmental Studies (JEMES), which has been running since 2007. The new master programme JEMES CiSu is a refinement of JEMES and follows a worldwide trend towards rapidly growing metropolises, which requires an increased focus on environmental and climate issues in cities and towns. In order to be able to provide the master students with a broader and more globalised insight in environmental problems, the consortium has furthermore been extended with four associated non-EU partners, namely /University of New South Wales, Sidney, Beijing Normal University/ and Beijing University of Technology in Beijing and Earth Institute at Columbia University in New York.

The programme is /coordinated by Aalborg University /and consists of the following partners: / Technischen Universität Hamburg-Harburg/ (/TUHH), Universitat Autònoma de Barcelona (UAB) and Universidade de Aveiro (UA).

More information concerning JEMES CiSu programme can be found at: www.jemes.eu

Recent Symposium Report, by Rene Kleijn

On December 16, 2011 a symposium was organized at CML on the occasion of the 65th birthday of Gjalt Huppel, the 2011 recipient of the ISIE Society Prize. The symposium was dedicated to the topic of strategies for global climate policy. The symposium chair prof. dr. Roland Clift praised Gjalt not only for his career contributions to the field of Industrial Ecology but also for being such "a nice guy".

Five complementary strategies were presented and discussed. **Paul Ekins** sketched a picture on the broad policy requirements for a fast enough transition to a low carbon society, ranging from support for niche development and regime changes to major landscape changes.

Gert Jan Kramer showed how long term business strategies reckoning with climate change risks create an invisible hand, adapting business behavior now already. **Roland Clift** advocated a tax shift from labor to materials as one key to revised product use and product design, leading to man-



services and product longevity. **Masanobu Ishikawa** showed how citizens action on product purchasing can also influence firms to adapt their behavior, creating legitimacy for (also) climate policy in the process. Finally, **Gjalt Huppel** presented a material flow analysis based strategy for global carbon pricing, as a general precondition for advances towards a low carbon society. The general discussion closing the program led by **Arnold Tukker** showed how these different approaches are not diverging routes but mutually reinforcing entries to global climate policy.



It was a great farewell for a great guy: Gjalt! By the way, do you recognize the guy with the blond hair and moustache to the left? Send your guesses to Gjalt.

NSF WORKSHOPS: TEACHING SUSTAINABILITY CONCEPTS IN ENGINEERING COURSES

WORKSHOP 1 ON JUNE 4-5

WORKSHOP 2 ON JUNE 7-8



Center for Sustainable Engineering

Held since 2006, CSE workshops for faculty members teaching engineering courses will again be offered by the Center for Sustainable Engineering, a partnership of Syracuse University, Carnegie Mellon University, Arizona State University, and Georgia Institute of Technology. Two similar workshops will be held on June 4-5 and June 7-8, 2012 in Syracuse, NY. Each workshop will start at 9:00 am on the first day and will adjourn by 3:30 pm on the second day so participants can catch flights home the same evening.

Each workshop will accommodate 30 participants. Faculty members from accredited engineering departments at four-year colleges and universities in the U.S. who have not participated in any previous CSE workshops are eligible to apply. Participants will be chosen based on a competitive application process. All participants are expected to pay their own travel costs to Syracuse. NSF will cover the expenses of the workshop, including ground transportation, food, lodging and workshop materials.

Applications for both workshops are now open at <http://www.csengin.org>. The deadline for application is March 1, 2012. Note that a \$200 deposit must be submitted to secure your reservation; this \$200 will be refunded at the workshop and is merely to minimize problems with last minute cancellations and no shows. For further information, see <http://www.csengin.org> or contact Ms. Carol Stokes-Cawley at cestokes@syr.edu. For information about the technical content of the workshops, contact Cliff Davidson at davidson@syr.edu.

Note that a slightly shorter version of the CSE workshop will be presented on May 15-16, 2012 just before the IEEE International Symposium on Sustainable Systems and Technology in Boston. Information on this IEEE symposium is available at <http://www.ieee-issst.org/>.

Call for Abstracts

Asia-Pacific Toward Eco-Industrial Development, Beijing, China, October 20–21, 2012,

The main objective of the Asia-Pacific ISIE Meeting series is to promote communication, collaboration, and network among academia, industry, and government, whose members are interested in applying industrial ecology in the Asia-Pacific region. On October 19 right before the Meeting, the 9th Annual Industrial Symbiosis Research Symposium will take place in Tianjin Economic-Technological Development Area (TEDA), about 150 km south-east to Beijing. The main theme of the third Meeting is *Asia-Pacific Toward Eco-Industrial Development*. Topics of the Meeting include:

1. Industrial symbiosis and eco-industrial development (EID)
2. Industrial metabolism and material flows analysis (MFA)
3. Life-cycle assessment and product footprint (LCA)
4. Environmentally extended input-output analysis and sustainable consumption (EIO)
5. Sustainable urban systems and infrastructure (SUS)
6. Energy conservation, pollution reduction and cleaner production (ECP)
7. Waste recycling and management (WRM)
8. Complex systems and agent modeling (CSA)
9. Policy intervention and planning (PIP)
10. Industrial ecology education (IEE)

Authors are encouraged to submit abstracts at <http://www.cern.org.cn>, Deadline to submit abstracts: April 15, 2012. For more information or send email inquiries to ISIE@tsinghua.edu.cn

Upcoming Conferences

- 2nd New Zealand Life Cycle Assessment conference, Auckland, New Zealand, 28-29 March, 2012
<http://www.lcaconference.org.nz/>
- [Technoport](#) conference, 16-18 April 2012 in Trondheim, Norway, <http://technoport.no/conference-2012/>
- Gordon Research Conference on Industrial Ecology- Les Diablerets, Switzerland, June 17-22, 2012
- Third International Engineering Systems Symposium CE-SUN June 18-20, 2012, Delft, The Netherlands
cesun2012.tudelft.nl
- 18th Annual International Sustainable Development Research Conference, 24-26 June 2012, Hull, UK
www.hull.ac.uk/isdrc18
- OSCP section first workshop in Rotterdam, Netherlands, June 15-16, 2012
- ECOS 2012, Renewable Energy Conversion Systems and Sustainable Technologies. , June 26-29, 2012, Perugia, Italy <http://www.ecos2012.unipg.it>
- International Symposium on "Life Cycle Analysis and Construction", Nantes, France 10-12 July 2012
<http://lca-construction2012.ifsttar.fr>
- Asia Pacific Business Innovation and Technology Management Conference, Genting Highlands, Kuala Lumpur, Malaysia, July 1-3, 2012
- MFA Section Workshop in Darmstadt, Germany, Sept 2012
- the 9th Annual Industrial Symbiosis Research Symposium, Tianjin, China, October 19, 2012
- The Third ISIE Asia-Pacific Meeting 2012, Beijing, China, October 20–21, 2012 www.cern.org.cn/
- the ISIE EID-ConAccount Meeting 2012, Beijing, China, October 20–21, 2012 www.cern.org.cn/
- The 18th Greening of Industry Network (GIN) Conference, Sweden, 22 - 24 October, 2012
www.greeningofindustry.org
- Baltic Inert Material Management Symposium (BIMMS), November 21 and 22, 2012, Stockholm, Sweden www.bimms.org

Upcoming Gordon Research Conference (GRC) on Industrial Ecology—June 17-22, 2012

The 2012 Gordon Research Conference on Industrial Ecology will examine key sustainability imperatives from various angles. Industrial Ecology is an interdisciplinary field of science that aims at a holistic understanding of the technosphere, ecosphere and the interactions between the two that result from the use of resources and generation of pollutants and wastes. The conference will explore how industrial ecology helps address some of the key interconnected questions that the planet is facing: (1-2) How do we provide adequate land, water, and nutrients to feed the 9 billion people that will inhabit the earth by 2050?; (3) How do we provide sufficient supplies of affordable metals and minerals to support an ever more populous and wealthier world?; (4) How do we green rapidly industrializing nations and what's the role of IE in developing countries?; (5) What is the role for scenario analysis in formulating and evaluating alternative prospects for a sustainable future?; (6) What is the role for LCA in informing the policy makers given the complexity of socio-economic and technological interactions?; (7) Are there sustainable trajectories that meet growing consumption needs?; (8) How do we address the rebound effect when promoting efficiency?; Finally, the last session of the conference will be devoted to an open discussion on how industrial ecology can best contribute to addressing these questions: what are the challenges for industrial ecology in dealing with these issues, and what are future research priorities? Invited speakers will present state-of-the-art research from various disciplines in order to provide unique insights and perspectives in approaching these questions. The conference affords an excellent opportunity to explore core sustainability challenges in greater depth with students and researchers at the forefront of their respective fields. Gordon Research Conferences (GRCs) are unique among scientific meetings for their prestige, quality of content, small size, diversity of participants, research—often still unpublished—at the frontiers of science, and a schedule optimized for extended discussion and informal interactions. The conference will take place at Les Diablerets, Switzerland.

For more Information:

GRC website: <http://www.grc.org/programs.aspx?year=2012&program=industeco>

Applications and abstracts are being accepted at: <http://www.grc.org/application.aspx?id=12727>

Gordon Research Seminar (GRS) on Industrial Ecology

Dates: June 16-17, 2012

Location: Les Diablerets Conference Center, Les Diablerets, Switzerland

Program: The focus of this meeting is on industrial ecology as it relates to the challenges of sustainable development - namely the efficacy of current tools and methodologies at reliably disclosing and assessing the interplay between environmental impacts and economic activities. Do our analyses properly incorporate fluctuations, scenarios, and scale, with regard to resource flows, population dynamics, and economic value?

About the GRS: The Industrial Ecology GRS will be held in conjunction with the Industrial Ecology GRC. Those interested in attending both meetings must submit an application for both the GRC and the GRS. The GRS is a unique forum for graduate students, post-docs, and other scientists with comparable levels of experience and education to present and exchange new data and cutting edge ideas.

Application information: The application deadline is **May 19, 2012**. Please apply early, as the meeting may become oversubscribed. Speakers will be selected from abstracts submitted by **February 16, 2012**.

Upcoming Conference: 18th Annual International Sustainable Development Research

18th Annual International Sustainable Development Research Conference: People, Progress and Environmental Protection

It is with pleasure that we invite you to ISDRC 18 at the University of Hull, England, 24-26 June 2012. Following the success of recent conferences in New York, New Delhi, Hong Kong and Utrecht, ISDRC is making a return visit to its roots in the north of England.

Conference themes

The timing of the conference is fortuitous, coming just after the Rio+20 events, marking the 20th anniversary of the historic Earth Summit of 1992. Given the evident problems that continue to have an impact on both people and the environment today, means to accelerate sustainable development are arguably required urgently. Is it reasonable even to question the validity of sustainable development as a guiding principle in delivering environmental solutions?

The conference will provide a forum for discussion on sustainability, comprising both empirical and theoretical contributions, considering developed, developing and/or transition economy perspectives around the following themes:

- Sustainable production and consumption
- Critical perspectives on sustainable development
- Regional approaches to sustainable development
- Effectiveness of governance, institutional and economic structures for sustainability
- Science of Sustainability: determining the need for transitions, assessing progress and trends.

Scientific contributions (based on peer reviewed abstracts) are organised into tracks which relate to these themes. Speakers and program information is available on the conference website www.hull.ac.uk/isdrc18

Other features of the conference include: A critical reflection on events at Rio+20; A dialogue with physical scientists and engineers engaged in sustainability related research; An introduction to the history, peoples and development of Hull, a city whose development has been closely intertwined with environmental issues.

Social programme

In addition to the academic programme, we are preparing an exciting social programme. You will have the opportunity relax with friends old and new whilst experiencing something of the city and region. The conference includes a registration ice breaker on the 23rd June, a gala dinner, and exhibition/poster session with a reception. On the day following the conference (27th June) there is a choice of excursions to sites of ecological and environmental management interest. Information is available too on outings of a more purely recreational nature.

Hull and the region

A city of 260,000 people on the east coast of England, Hull and its surroundings make an ideal location for a conference on sustainable development. As a port city, from its earliest days Hull has attracted merchants, visitors, and residents from overseas. Industry has been based around whaling, deep sea fishing and process/port industries attracted by the import/export potential of the estuary, and the use of its water as both a resource and a medium for the disposal of by-products. As the industrial base has changed, so has both the environmental impact and the experience of living here, but flow of commodities and people remain critical to the region's economy. The Humber Estuary, on which Hull is situated, is now home to the UK's biggest port facility, in addition to having internationally significant estuarine and coastal habitats, and is likely to play host to significant renewable energy development (production and deployment of technologies such as off shore wind).

Registration and Accommodation

The website is now open for registration at the early bird rate (available until 20 March 2012). A range of reasonably priced accommodation is available. www.hull.ac.uk/isdrc18

Upcoming Conference: 18th Greening of Industry Network conference in Linköping, Sweden

"The 18th conference of the Greening of Industry Network will be organized in Linköping in the county of Östergötland, Sweden. The conference is scheduled for October 21-24, 2012. GIN2012 will combine plenary sessions and workshop presentations/ dialogues with information and knowledge sharing among stakeholders in the county of Östergötland and the conference participants.

This region is known for its "Triple Helix" basis for innovative SMEs, Industrial symbiosis and bio-fuel production synergies. Triple Helix stands for the utilization of the complementary expertise and skills of academia, industry and government to facilitate both new projects and systems for innovation as well as collaborative processes to generate creative synergy for sustainability development. Industrial ecology and industrial symbiosis are key concepts in this approach.

The title of the GIN 2012 conference is: "Support your future today! Turning environmental challenges into business opportunities", which reflects the "Triple Helix" approach. The themes of the GIN2012 conference will challenge the participants to share knowledge in dynamic dialogues about innovative industry scenarios.

The first Call for Papers was launched on the December 10, 2011.

Please visit the Conference website www.GIN2012.se for further information and submission of your abstracts. Submission Deadline is April 15, 2012.

Authors of 'to be selected' papers will be invited to submit their peer-review ready documents for potential publication in a special issue of Journal of Cleaner Production.

For more information, please contact Professor Leo Baas, Linköping University, leenard.baas@liu.se

Getting in shape for 2050, By Marco Mensink, CEPI Deputy Director General

In March 2011, The European Commission published a “Roadmap for moving to a competitive low-carbon economy in 2050”. At its core is an industrial model based on carbon dioxide emissions which are 80 percent lower in 2050 compared to 1990 levels. While 2050 is a long way off, it represents just two investment cycles for a capital intensive paper industry – the lives of two paper machines – so such a roadmap is a timely opportunity for policy makers and producers to make crucial choices.

Hence the launch of the Forest Fibre Industry 2050 Roadmap to a low-carbon bio-economy at European Paper Week in November 2011 in Brussels. Received with an encouraging welcome, this CEPI roadmap is a holistic exploration of the future of the sector. It examines the technical, financial and resource constraints which lie ahead, and the European Commission and member state policy frameworks which will be needed to tackle them. It is also a statement of ambition to be at the heart of the 2050 bio-economy and recycling society.

Notably, the CEPI roadmap represents the first answer by any energy-intensive industry to the European Commission’s call for sector-specific roadmaps to complement its own 2050 roadmap. The fact was not lost on European Commissioner for Climate Action Connie Hedegaard when she addressed the Paper Week 2011 audience: “Your roadmap presents a vision of a thriving European bio-economic sector that reaps the opportunities that the low carbon economy will bring, while at the same time addressing its challenges. In short, it presents a vision that your industry will be part of the solution.”

The European paper industry already excels in sustainability and has achieved relative decoupling of environmental impacts from production. But an 80 percent reduction in carbon dioxide requires a vision which goes beyond even the emerging technologies of the forest fibre industry. Climate-change policy is essentially industrial policy, and if this sector is to play its part in achieving the Commission’s industrial model, then its own path to 2050 must be paved with breakthrough technologies which need to be available by 2030.

Underpinned by a technology push, the forest fibre industry can develop new business models, products and services to complement the future use of printing and writing papers and the growing need for packaging and hygiene solutions. Forest fibre businesses must of course remain profitable, too, and continue to attract investment. The investment in technology required means more value is needed out of each. It needs also to retain access to fibre and other raw materials.

The transformation required calls for a combination of technology push, product innovation and supportive legislation. This is not an action plan. Uncertainties in modeling the economy are too great simply to translate a 2050 model into an action plan. Life is just not that predictable. The roadmap’s enthusiastic reception in Brussels suggests the industry is ready for the trip: starting the discussion now on how to reach its destination gives it the best chance of getting there in good shape.

More information at www.unfoldthefuture.eu

Order your paper copy at 2050roadmap@cepi.org



New Reports

Resource Use in Austria and Resource Efficiency Action Plan

Austria published the first Report on "Resource Use in Austria" prepared by Nina Eisenmenger, Anke Schaffartzik, Fridolin Krausmann (Institute of Social Ecology) and Eva Milota (Statistics Austria), which was commissioned by the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management, together with the Austrian Federal Ministry of Economy, Family and Youth. The Report gives an overview on Material Flows during the past 50 years and a detailed analysis of the four material categories (biomass, fossil fuels, metals, non-metallic minerals). The Report finishes with a section on resource productivity and several scenarios on possible future resource use. The publication shows that despite a clear improvement in resource productivity, material use still increased by a factor of 1.7. In 2008, Austria used 24 tonnes per person and year. The Report was further used as analytical ground for the Austrian Resource Efficiency Action Plan (REAP) published in January 2012. The REAP sets ambitious targets on Austrian Resource Use: Until 2020, Resource Efficiency should increase by 50% and Resource Use should decrease by 20% (based on 2008). In the long run, i.e. until 2050, Resource Efficiency should increase by a Factor of 4 to 10. Progress will be monitored by using Material Flow Data and Indicators.

The Report can be downloaded at: www.uni-klu.ac.at/socec/ and http://www.lebensministerium.at/umwelt/nachhaltigkeit/ressourceneffizienz/ressourcennutzung_zahlen-und-fakten/Ressourcenbericht11.html

Decoupling Natural Resource Use and Environmental Impacts from Economic Growth

M.Fischer-Kowalski (SEC, Vienna) and M. Swilling (Univ. Stellenbosch, ZA) were lead authors to a recent report published by UNEP, "Decoupling Natural Resource Use and Environmental Impacts from Economic Growth". This report assessed global long-term trends in the use of natural resources and in undesirable environmental impacts. It based its assessment, among other sources, on a number of articles published in JIE. Main findings include a sevenfold increase in the global use of material resources, and a tenfold increase of energy resources, during the 20th century while the global economy increased 23fold. Thus there was a certain decoupling of resource use from economic activity, but by far not enough to warrant an acceptable global future, in particular as emergent economies quickly catch up with the high metabolic rates of mature industrial countries. Scenario calculations illustrate alternative "contraction and convergence" pathways.

New Book: Sustainable Materials: with Both Eyes Open

"Better and more relevant than anything Coldplay will write next year"

The WellMet2050 team led by Julian Allwood at the University of Cambridge have just launched their book "Sustainable Materials: with both eyes open" which examines the realities of meeting international carbon emissions reduction targets in industry: energy intensive industries, dominated by production of steel, cement, plastic, paper and aluminium, are already highly energy efficient, so 'with one eye open' - looking for further energy efficiencies - we don't have enough options to meet the target. But 'with both eyes open' - we can also look for opportunities to deliver the same services with less new material, and there are enough options to do so that we can indeed meet international targets. The book, which is packed with terrific graphics, sets out this story in a compelling and popular style and is soon to be reviewed in the Journal of Industrial Ecology.

But although the public likes to discuss wind-turbines, solar cells, and electric cars, no one talks about steel and cement, so how do we bring it up the agenda? How about singing about it? In parallel with the book, comes the launch of the world's first album of pop songs on the theme of industrial ecology. You can read chapters of the book online for free at www.withbotheyesopen.com, where you can also hear samples of the songs. The full album which can be bought from amazon.co.uk, has been described by New Scientist as "better and more relevant than anything Coldplay will write next year" - and is, as far as we know, the world's only offering in the "future

ISIE Members News

- Marina Fischer-Kowalski was announced president elect of the International Society of Ecological Economics (ISEE) for 2013-2014
- Daniel Hausknost, Phd in political science from Leeds, will join the Institute of Social Ecology by March 1st, 2012
- Bob Pfahl, ISIE members since 2001 , iNEMI's Vice President of Global Operations, has been nominated by the Sustainability Summit for the Award for Environmental Leadership for 2011. Bob has been a long-term leader and driver for environmental electronics.

Congratulations to Melanie Quigley and her husband for their newborn baby girl, Penelope Quigley Smith !



Grants and Awards

- Veronika Gaube of the Institute of Social Ecology Vienna won an Elise Richter Grant. The highly competitive programme is awarded by the Austrian Science Fund (FWF) and has been conceived as a specific funding measure for women in science and research. The project 'Linkages of food systems and nitrogen flows: An integrated socioecological model of the Enns valley, Upper Austria, 1830-2030' provides the excellent opportunity to contribute to the field of integrated socioecological modelling over the next 4-years. Aim of the programme is to achieve the level of qualification that enables to apply for professorial positions.
- the Institute of Social Ecology Vienna received a sustainability award for their support to the Greek island of Samothraki's application to UNESCO for becoming a Biosphere Reserve, for their research exploring how a sustainable pathway would benefit the Island.
- A general research program titled *the anthropogenic transfer and transformation of lead and the quantitative analysis on environmental accumulated lead emission* is granted by NSFC of China in Sep. 2011, which aims to understand the processes and its accumulation results of anthropogenic activity on Lead metal in the Earth's surface. This funding belongs to the research field named *the mitigation, transformation and fate dynamics of environmental pollutants in Earth Sciences Department*. In this program, firstly, the anthropogenic lead phase and form will be defined according to its human availability and chemical structure; secondly, both the dynamic model for the anthropogenic lead transfer and transformation (ALT&T) and the dynamic model for human-driven lead emission are settled with material flow analysis (MFA) approach, considering lead uses, technology, etc. and their changes with time; the internal relationships among lead anthropogenic phases and forms will be studied, and the rules for (ALT&T) and for lead environmental emission will be obtained. Then, the time-accumulation effect, rules, and human-driven mechanism might be obtained. As a case study, the rate and half-century accumulation of (ALT&T) for China will be estimated, the inventory of lead emission will be formed and its future will be predicted. The consequence may enrich the basic theory for the lead surface transfer and transformation (ST&T) and provide new way for research on ST&T and the source management of heavy metals.

Open Positions

The National Agricultural Library, part of the U.S. Department of Agriculture (USDA)

Post-doctorate position for an ongoing project requiring an individual with a recent Ph.D. in ecology, engineering, economics and life-cycle assessment experience.

For more information please contact

Stuart R. Gagnon

NAL/ARS/USDA

Stuart.Gagnon@ARS.USDA.GOV

University of Maryland, College Park.

The College of Behavioral and Social Sciences is seeking (3) computational social scientists to expand Maryland's strengths in the computational aspects of global environmental change through interdisciplinary joint appointments. Rank will start at associate professor and tenure will be in the department closest to the applicant's background. Applicants should have disciplinary backgrounds in the social sciences and most importantly, have advanced computational skills which include experience integrating social science data into computational models.

One appointment will be in Economics/Geography. For that position, experience is preferred in sustainability science in combination with one or more of the following: computational economics, economic geography, spatial modeling or data visualization. For a detailed description of the position and application submission instructions please visit our web ad at <https://jobs.umd.edu> (reference position 117853).

Another appointment will be in Geography/Sociology. For that position, experience with agent-based modeling, social networks analysis, computational input-output analysis or social accounting, or data visualization is preferred. For a detailed description of the position and application submission instructions please visit our web ad at <https://jobs.umd.edu> (reference position 117853).

Review of applications will continue until the positions are filled, however applications received by March 2, 2012 will receive best consideration. The University of Maryland is an affirmative action/equal opportunity employer and is proud of its diverse faculty, staff, and student body. Women, minorities, veterans, disabled veterans, and individuals with disabilities are encouraged to apply.

More Positions

Are Available at:

<http://www.is4ie.org/jobs>

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The ISIE newsletter is published four times a year. The aim of the newsletter is to keep our members informed about the latest and greatest ISIE news from around the globe.

We can only do it with your help!

Please send us any information you think is worth including in the newsletter and we will find a place for that (conference summary, important publications, job posting, new appointments, etc.).

Please email your contributions to vered@industrialecology.org

International Society for Industrial Ecology
c/o Yale School of Forestry and Environmental
Studies
195 Prospect Street
New Haven, CT 06511 USA
Tel +1-203-432-6953 Fax +1-203-432-5556
is4ie@yale.edu
<http://www.is4ie.org>

WWW.IS4IE.ORG

President: Greg Keoleian

President-elect: Marian Chertow

Secretary: Clint Andrews and Anthony Chiu

Treasurer: Chris Kennedy

Editor, Journal of Industrial Ecology:

Reid Lifset

ISIE News Editor :

Vered Blass

vered@industrialecology.org.il

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The International Society of Industrial Ecology (ISIE) promotes industrial ecology as a way of finding innovative solutions to complicated environmental problems and facilitates communication among scientists, engineers, policy makers, managers and others who are interested in how environmental concerns and economic activities can be better integrated.

Next ISIE Newsletter Schedule

<u>Publication Date</u>	<u>Submission Date</u>
May 15, 2012	April 20, 2012
August 15, 2012	July 20, 2012

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