

ISIE News

International Society For Industrial Ecology

Special points of interest:

- ISIE Sections update
- JIE News
- IE news from around the world
- Upcoming Conferences
- Open positions
- Members News

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Dear ISIE Community,

We hope you had a good start of the fall season. The end-of-year holidays are just around the corner and we are sure you are all working hard on finishing up as much as you can before the year of 2012 is gone.

This newsletter issue brings you ISIE announcements, call for papers, as well as exciting IE news from around the world.

We wish you all a productive two last months of the year and looking forward to receiving the summary of your great work in the form of abstracts to the next ISIE 2013 conference (due Nov 30!).

**Best,
Roland, Melanie, and Vered**

Time to Renew Your ISIE Membership!

The registration fees for the 2013 conference make it financially attractive to join the Society before registering, so why not take this opportunity to encourage your colleagues to become members of ISIE?

Join or renew here: <http://is4ie.org/join>

ISIE has adopted a new fee schedule for the coming calendar year. The ISIE's costs are all in US\$ so our revenue has to be in US\$ and therefore non-US\$ fees have been changed to reflect exchange rates. The currencies quoted are those in which Wiley Blackwell accepts payment but individual members can decide the currency in which they pay.

We are also happy to announce the addition of a new membership category - "Young Professional" - available to anyone who graduated three years or less before the date of joining or renewing their membership. Note: This may mean that some people who are already full members may have a year or two at a fee lower than they have already paid but the concession is not available retrospectively.

	Americas US\$ 2013	Rest of World US\$ 2013	Developing Countries US\$ 2013	Euro zone € 2013	UK £ 2013
Regular:					
One year:					
Print & on-line	\$150	\$160	\$80	€135	£105
On-line only	\$140	\$140	\$50	€120	£92
Two year:					
Print & on-line	\$270	\$300	\$144	€255	£200
On-line only	\$252	\$252	\$90	€215	£170
Student:					
Print & on-line	\$75	\$85	\$75	€72	£56
On-line only	\$35	\$35	\$35	€30	£23
Young Professional:					
One year:					
Print & on-line	\$105	\$112	\$75	€95	£74
On-line only	\$98	\$98	\$35	€84	£64

Student Section Update, by Graham Aid

Our three longest serving board members have passed their leadership batons on to three new board additions. We thank the outgoing student chapter leadership Susan Spierre (Clark), Ankit Aggarwal, and Vivian Lee for their collective efforts in bringing together the chapter through illustrious communication and student events. Among these events were the social events at the Gordon and Hull conferences this June and the “Future Faculty” event at ISSST in Boston earlier this May.

We welcome Claire Antaya (Arizona State University, USA), Prakhar Goel (Erasmus Mundus MIND program), and Xiao Le (Tsinghua University, Beijing, China) as new additions to the board. Together with the remaining senior board members, many plans focused on 2013 are under development. We look forward to arranging student social events as well as the third Symposium on Industrial Ecology for Young Professionals (SIEYP) in conjunction with the 2013 ISIE Biennial Conference.

As always, please keep us updated with potential funding information, student news, student research opportunities, and other announcements to the student chapter at isiestudentchapter@gmail.com

More information about the student chapter can be found at <http://www.is4ie.org/students>

The Eco Industrial Development/Industrial Symbiosis Section, by Peter Lowitt

The Eco Industrial Development/Industrial Symbiosis Section co-sponsored the 9th annual Industrial Symbiosis Research Symposium along with Yale University in Tianjin on October 18-20, 2012. Section board member Professor Shi Han coordinated the event on behalf of the section along with Professor Marian Chertow and our gracious hosts from the TEDA Eco Center who show that Eco Industrial Parks and Industrial Symbiosis work at scale. On behalf of the over 40 participants in the event I would like to extend our thanks to our hosts and the event organizers. After an evening introduction (October 18th) and a full day of discussions (19th) we were able to tour a number of facilities (morning of the 20th) before departing for Beijing and the 3rd Asia Pacific ISIE meeting.

The Section continues to support the vigorous discussions on our linked in IS case study page as well as to produce our Eco Industrial Development/Industrial Symbiosis Updates. Mr. Lowitt hosted a US Eco-Industrial Park Networking event in September as the first step in organizing a vital practitioners group. Congratulations to Guillaume Massard and his soon to be released publication on Eco Innovation Parks and the accompanying Workshop on Eco-Innovation Parks organized by the Swiss Federal Office for the Environment FOEN held in Bern, Switzerland this September.

JIE News, Reid Lifset

The JIE is pleased to welcome Olli Salmi as an Associate Editor for Industrial Symbiosis. Olli is a Research Professor at VTT Technical Research Centre of Finland. And we thank Rachel Lombardi of International Synergies Ltd for her service as associate editor.

The JIE has recently published 2 special issues and announces call for papers for 2 new issues.

Meta-analysis of LCAs - published

This special supplemental issue, published in May, explored the application of meta-analysis, a set of techniques used to synthesize results from a body of previous research widely used in biomedicine and education, to LCA. The issue includes 12 high-quality meta-analyses and critical reviews of LCAs and breaks new ground in the synthesis of LCA studies, going beyond the customary practice of producing independent studies on specific products or technologies. The special issue includes six studies from the LCA Harmonization Project of the U.S. Department of Energy's National Renewable Energy Laboratory (NREL). The special issue is available at <http://jie.yale.edu/LCA-meta-analysis>. Garvin Heath of NREL, Miguel Brandão of the International Life Cycle Academy and Joyce Cooper of the University of Washington served as co-editors.

Greening Growing Giants – published

This special issue, published in August (volume 16, #4), presents research focusing on the application of the concepts and tools of industrial ecology to problems, developments, and strategies in rapidly developing countries. Seiji Hashimoto of Ritsumeikan University, Sangwon Suh of the University of California, Santa Barbara, Xuemei Bai, of the Australian National University and Marina Fischer-Kowalski, of the Institute of Social Ecology Vienna served as editors. The issue is available [here](http://www.wiley.com/WileyCDA/Section/id-610457.html). Because of a strong emphasis on China in the special issue, the opening article has been translated into Chinese (see <http://www.wiley.com/WileyCDA/Section/id-610457.html>).

Industrial Ecology as a Source of Competitive Advantage in Industry – Deadline June 1, 2013

This special issue seeks to explore how the concepts and tools of industrial ecology can and do serve as a source of competitive advantage for firms, groups of firms and industry sectors. Two sets of audiences are envisioned for this special issue: Those knowledgeable in business—both scholars and industry practitioners—seeking to apply their exper-

tise to the novel environmental concepts that have emerged from industrial ecology and those familiar with industrial ecology, curious to understand how industrial ecology can and could be the basis for profitable business endeavors. Analyses can range from the theoretical and conceptual to systematic empirical analysis to case studies of individual firms, business ventures or strategies. Case studies that specify in quantitative terms the nature and magnitude of the competitive advantage are especially welcome. The complete call for papers can be found [here](http://www.wiley.com/WileyCDA/Section/id-610457.html). Authors are requested (but not required) to send abstracts of proposed submissions of between 750 and 1,000 words to indecol@yale.edu. Abstracts received by November 1, 2012 will receive feedback from the editors prior to January 1, 2013. Andrew Hoffman of the University of Michigan, Peter Wells of Cardiff University, Nitin Joglekar of Boston University and Charles Corbett of the University of California, Los Angeles will serve as co-editors of the special issue.

Sustainability in Manufacturing: The Role of Life Cycle Engineering – Deadline December 1, 2012

The special issue is concerned with technologies, methods and tools that can support companies in their efforts towards sustainability in manufacturing while embracing the life cycle perspective. Manufacturing firms have increasingly extended their traditional environmental efforts to encompass a life cycle perspective—giving rise to the emerging discipline of life cycle engineering. A comprehensive foundation in terms of technologies, methods and tools for reducing the energy and resource consumption of manufacturing processes has begun to develop. However, there are important unanswered questions such as whether reducing energy and resource consumption compromises the quality performance of the process, and how best to manage the dynamic interdependencies between process parameters, machine design, manufacturing process chains and factory design, and environmental impacts. Papers can address fundamental research, development of cross-cutting conceptual frameworks, applied tools, field work case studies, and inter-disciplinary curricula. Contributions from practitioners are encouraged. The complete call for papers can be found [here](http://www.wiley.com/WileyCDA/Section/id-610457.html). Christoph Herrmann (Technische Universität Braunschweig), Sami Kara (University of New South Wales), Michael Hauschild (Denmark Technical University), and Timothy Gutowski (Massachusetts Institute of Technology) will serve as co-editors of the special issue.

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.

Anu Ramaswami to join HHH as new Denny Chair for Science, Technology & Public Policy

By [Sherry Gray](#), text taken from University of Minnesota website

Dr. Anu Ramaswami will be joining the Humphrey School as Professor and Denny Chair for Science, Technology and Public Policy.

Dr. Ramaswami is among the leading scholars on sustainable urban infrastructure, and has seen her work adopted as policies and protocols for developing sustainable cities in both the United States and around the world. She has developed leading inter-disciplinary education, research and outreach programs at the intersection of science and policy, linking students with real-world sustainable development projects in more than 40 cities in the United States.

Anu has most recently served as Professor of Environmental Engineering at the University of Colorado Denver, and as director of Department of Education and NSF-sponsored Graduate Assistance in Areas of National Need (GAANN) and Integrative Graduate Education and Research Traineeship (IGERT) programs.

Anu's research spans environmental modeling, environmental technologies, industrial ecology, sustainable infrastructure design, urban systems analysis, and integration of science and technology with policy and planning for real-world implementation in communities. Since 1996, she has advised more than 40 graduate students, co-authored a comprehensive textbook on Integrated Environmental Modeling, and published more than 50 papers covering diverse topics relating to the environment and sustainability.

Anu serves as technical advisor to ICLEI (formerly the International Council for Local Environmental Affairs), and on the Sustainability Advisory Board of AT&T Corporation. She was elected in January 2011 to Chair the Board of the newly formed Sustainable Urban Systems section at the International Society of Industrial Ecology. She is lead editor for a special issue on Low Carbon Cities in the journal, Carbon Management, and co-editor for a special issue on Sustainable Urban Systems in the International Journal of Industrial Ecology. She is also active in international research partnerships in India, China and Australia, and has represented the United States in international forums addressing urban modeling, infrastructure development, ethics and sustainability.

Anu will bring to the UMN two new NSF grants - one a research coordination network grant on Sustainable Cities that connects researchers from more than 15 U.S. universities with cities and practitioner networks. The second, a Partnerships for International Research and Education (PIRE) grant (see a separate news item), will compare and contrast transformations needed in the physical infrastructure systems and the socio-political system to develop low-carbon, healthy and resilient cities in the United States, China and India.

René Kleijn new Director of Education of the MSc program Industrial Ecology



As of 1 September 2012 [René Kleijn](#) is Director of Education of the [MSc program Industrial Ecology](#), a joint master program of [Delft University of Technology](#) and [Leiden University](#). He is the successor of [Gijsbert Korevaar](#).

From the start in 2004 Gijsbert has played an essential role in the success of the program, first as a coordinator and later as Director of Education. In this period the program has seen a steady growth in the number of students from 15 freshmen at the start in 2004 to over 40 in 2012. The staff, students and alumni of the program are all very grateful to Gijsbert for his energy and efforts that helped make this program to the success it is today.

Prof. Roland Clift as the 45th speaker of the Tsinghua Forum

Prof. Roland Clift, the Executive Director of ISIE, visited Tsinghua University and gave a speech at Tsinghua Forum as the 45th speaker on July 10, 2012. The Tsinghua Forum lectures, which started in 2005, are the most prestigious academic events at Tsinghua University. Previous invited lecturers have been Nobel Prize laureates and leaders of major universities, research institutes and global companies.

Prof. Clift discussed the Role of Industrial Ecology in Environmental Policy and Company Strategy. Industrial ecology is a new grouping of academic approaches which sheds light on the use, accumulation and wastage of resources in the economy. Life Cycle Assessment and Material Flow Accounting are two of the basic tools of industrial ecology. These tools and approaches increasingly provide the underpinning for environmental legislation and regulation in the European Union and for the environmental strategy of companies, particularly those supplying consumer products. Some examples were discussed including integrated product policy, labeling to inform consumer purchases and company strategies for corporate sustainability.

The forum was hosted by Prof. QIAN Yi, Fellow of Chinese Academy of Engineering and President of the Academic Council of Tsinghua University. Prof. Clift's thought-provoking talk was very well received by the audience. Before the Forum, he had an in-depth discussion with Prof. SHI Lei's team. After the Forum, Prof. Clift had a meeting with Prof. YU Gang, the Dean of Tsinghua School of Environment.



Industrial Ecology at the World Economic Forum, by Marian Chertow

On June 22, 2012, following up on an inquiry received by Prof. Roland Clift, Executive Director of ISIE, Walter Stahel, Roland and I visited the offices of the World Economic Forum (WEF) in Geneva, Switzerland following the Gordon Research Conference in Les Diablerets. The WEF staff were seeking information related to the notion of the circular economy and other issues related to industry and environment. We had an excellent session introducing industrial ecology and the ways in which it addresses so many of the underpinnings of the circular economy as policy.

While the WEF is most famous for the winter meeting in Davos, Switzerland, there is also a “Summer Davos” meeting held in China each year. I spent the summer months helping to design a session on “Shaping the Circular Economy” for the meeting in Tianjin, China, September 11-13, with the overall theme of “Creating the Future Economy.” During the Tianjin meeting we had a two hour highly interactive session about the circular economy replete with an artist who drew pictures while we spoke and took very colorful notes –see the sketch below of the artist’s view of life cycle thinking! I also spoke on the topic: New Solutions: Waste Management where I stressed the importance of preserving embedded energy and materials as my “solution” to the solid waste problem. There were numerous sessions related to resource management, consumption, and China’s role in the economy as well as a keynote address from Chinese Premier Wen Ji Bao. Suffice it to say, there were major business leaders, several heads of state, and a surprisingly open and friendly atmosphere. I hope we as ISIE can develop a continuing relationship with this important, opinion-leading group.



“There is More
Than Meets The Eye
When We Produce a Good:
The Whole Lifecycle
Must Be Considered.”



Team of ISIE Researchers wins NSF Partnerships in International Research And Education (PIRE) Grant to Develop Low Carbon Cities in the US, China and India

This \$4.45M NSF PIRE grant led by Anu Ramaswami (now at the University of Minnesota) with Marian Chertow (Yale), Ted Russell (Georgia-Tech), Paty-Romero Lankao (National Center for Atmospheric Research, NCAR), Chris Weible (University of Colorado Denver) and Rachelle Hollander (The National Academy of Engineering, NAE) focuses on “*Developing Low-Carbon Cities in the USA, China & India through Inter-Disciplinary Integration Across Engineering, Environmental Sciences, Social Sciences & Public Health*”.

This PIRE project will develop a transformative international research, education and outreach program to assist in the development of low-carbon, resource-efficient and healthy cities in the US, China and India - these three nations, together, contribute [a staggering] 50% of global fossil fuel-use and greenhouse gas emissions.

PIRE research will focus specifically on Asian cities in transition – i.e., small rapidly industrializing cities in Asia (population < 1Million) that are expected to dominate future urbanization, comparing their development trajectories with those of megacities (population > 10Million) and smaller service economy cities in the US, thus providing a road-map for sustainable development in different city types worldwide. Water scarcity and public health concerns from fossil fuel use are hypothesized to drive changes in the energy system in Asia, which will be explored in this project drawing upon research across multiple disciplines.

Engineers, industrial ecologists, urban planners and environmental scientists will evaluate three infrastructure interventions that can lower GHG emissions as well as enhance resource-efficiency and improve public health in cities.. These are –resource productivity gains through industrial symbiosis, early transportation planning incorporating bus rapid transit, as well as electric power sector planning under water-scarcity conditions. Social scientists will explore the extent to which local water-supply and public health concerns motivate the adoption of these low-carbon infrastructures, and will help identify the most effective political and institutional “nudges” that can facilitate such adoption in different city types. The interactions between infrastructures, social actors and sustainability outcomes will be evaluated together using a novel inter-disciplinary Social-Ecological-Infrastructural Systems (SEIS) framework.

International Summer School: The PIRE will also develop a first-of-its-kind International Summer School and MS Program on *Sustainable Infrastructure-Sustainable Cities* offered to cohorts of graduate students from all three nations drawn from six major disciplines: Engineering, Environmental Sciences, Industrial Ecology, Urban Planning, Public Affairs and Public Health.

The summer school is designed to integrate research with education, enabling teams of faculty and students from the US, China and India to learn and work together with local governments, NGO partners, and communities on-the-ground to advance not only the science, but also the practical development of low carbon and sustainable cities in the three nations.

International Partners – This PIRE project is a collaboration among the 6 US institutions listed above and partners in China and India: Tongji University, Tsinghua University and the Chinese Academy of Sciences – Institute for the Urban Environment (CAS-IUE), and, the Indian Institute of Technology (Kanpur), TERI University and three NGOs – ICLEI-South Asia, the Resource Optimization Initiative (Bangalore), and The Urban Health Research Center (UHRC).

In addition to US partners who are members of ISIE (Ramaswami, Chertow, and Romero-Lankao) several of the international research partners are ISIE members, including Prof. Shenghui Cui (CAS-IUE), Prof. Shi Lei (Tsinghua), Dr. Megha Shenoy (ROI) and Prof. Bhavik Bakshi (formerly VC at TERI University). Indeed, one could say that several of the PIs on this project team initially came to know each other from networking/connections enabled by ISIE meetings and its Sustainable Urban Systems chapter workshops.

Dr. Weslynn Ashton of the Illinois Institute of Technology was awarded a US\$1.1M grant

A six-university US-Latin American consortium led by Dr. Weslynn Ashton of the Illinois Institute of Technology was awarded a US\$1.1M grant from Higher Education for Development and the US Department of State to lead the “**Pathways to Cleaner Production in the Americas**” initiative. The three year project aims to promote and facilitate sustainable industrial development throughout the Americas. The award will fund faculty capacity building in inter-disciplinary approaches to cleaner production, experiential learning opportunities for students to work with micro-, small- and medium enterprises (MSMEs), and active assistance to MSMEs in the implementation of cleaner production and sustainability practices. Industrial Ecology will be integral to the training and implementation aspects of the project, and was the most highly desired topic of interest for many of the Latin American faculty. Members of the consortium include New York Institute of Technology, Costa Rica Institute of Technology, Santo Domingo Institute of Technology (Dominican Republic), Central American University “Jose Simeon Cañas” (El Salvador), and San Ignacio de Loyola University (Peru), with additional partners from Guatemala, Honduras and Nicaragua expected to join by the end of 2012.

More information can be found on our website: www.cleanerproduction-la.org, our Facebook page: “Pathways to Cleaner Production in the Americas”, or by emailing Dr. Ashton at [washton\(at\)iit.edu](mailto:washton(at)iit.edu).

Student Awards

Mr. Binod Neupane and Ms. Najet Bichraoui, two doctoral advisees of Dr. Anthony Halog at the University of Maine, were competitively selected to participate the *Summer School on “Sustainability for Coupled Human and Natural Systems”* organized by GCOE-INeT, Hokkaido University, Japan, June. 2012.

In Germany, **Mr. Nana Bortsie-Aryee**, another PhD advisee of Dr. Halog was competitively selected to participate in the *2012 Global Sustainability Summer School held at the Institute of Advanced Sustainability Studies (IASS) and the Potsdam Institute for Climate Impact Research (PIK)*, July, Potsdam, Germany.

Binod Neupane won the Best NAC/SETAC Poster Award for a poster “Accounting the Role of Ecological goods and Services for Wood-derived Bioethanol Production” at the 8th Annual Meeting of North Atlantic Chapter SETAC.

Industry Corner, by Mike Brown, BW Environmental LLC

The [Sustainable Apparel Coalition](#) unveiled its [Higg Index 1.0](#), an indicator based tool for measuring the environmental and social performance of apparel. The index spans the apparel life cycle from the origin of raw materials to end-of-life (it currently does not include retail distribution). It uses elements of the Outdoor Industry Association [Eco Index](#) and Nike’s [Environmental Apparel Design Tool](#) with enhancements derived from pilot testing with a large number of apparel companies. Future releases will expand include footwear products and social and labor impact areas. Sustainable Apparel Coalition members include apparel and footwear manufacturers as well as retailers responsible for about 1/3 of global apparel production.

We would like to hear from YOU!

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.il

Special Reports

UNCTAD Report urges Africa to avoid 'grow now, clean up later' approach

UNCTAD press release: "Africa, a latecomer to establishing complex, modernized economies, should strive to do this in a way that uses the continent's abundant natural resources in an efficient, "green" manner that both raises living standards and protects the environment, a new UNCTAD report urges. The Economic Development in Africa Report 2012, subtitled Structural Transformation and Sustainable Development in Africa, was released on June 13th, 2012. It focuses on the dilemma of accomplishing much-needed economic growth while protecting the environment". The Team Social Ecology has contributed substantially to this report with a commissioned report on HANPP in Africa and is cited as: UNCTAD (2012a). Human Appropriation of Net Primary Production in Africa: Patterns, trajectories, processes and policy implications. Written by Fetzel T, Niedertscheider M, Erb K H, Gaube V, Gingrich H, Haberl H, Krausmann F, Lauk C and Plutzar C. Alpen-Adria University. Paper commissioned by UNCTAD. Geneva.

Find the report as free pdf at: <http://unctad.org/en/pages/PublicationWebflyer.aspx?publicationid=131>

Global Energy Assessment (GEA) Report presented in Rio

The Global Energy Assessment (GEA) was presented in Rio de Janeiro in June. The aim of this project which was coordinated by the International Institute of Applied Systems Analysis (IIASA), was to evaluate and summarize the current state of research on global energy issues in a policy relevant document. The GEA report comprises chapters on questions such as energy resources, climate-change mitigation, risks, scenarios as well as policy options and recommendations.

The Institute of Social Ecology (SEC) contributed to the three chapters on energy resources, trade-offs land and water and urban issues. SEC researchers involved were Karl-Heinz Erb, Helmut Haberl, Fridolin Krausmann, Christoph Plutzar, Julia Steinberger and Helga Weisz. GEA will be published as a book from Cambridge University Press which will become available in the course of July 2012.

IIASA press release: <http://www.iiasa.ac.at/Admin/INF/PR/2012/2012-06-19.html>+

Global Environmental Outlook (GEO-5) launched in Rio

UNEP press release: "The fifth edition of the Global Environmental Outlook (GEO-5), launched on the eve of the Rio+20 Summit, assessed 90 of the most-important environmental goals and objectives and found that significant progress had only been made in four. These are eliminating the production and use of substances that deplete the ozone layer, removal of lead from fuel, increasing access to improved water supplies and boosting research to reduce pollution of the marine environment."

GEO-5 prominently quotes from research at the Institute of Social Ecology (SEC). Marina Fischer-Kowalski contributed as Scientific Peer-Reviewer. The report features in various parts results from our database on global patterns and trends of material use in the last century by Krausmann et al. (Krausmann, F., Gingrich, S., Eisenmenger, N., Erb, K.H., Haberl, H. and Fischer-Kowalski, M. 2009. Growth in global materials use, GDP and population during the 20th century. *Ecological Economics* 68, 2696–2705).

In the chapter "Land" a study on HANPP effects due to dryland degradation is discussed, which presents an innovative perspective on the important, but complex phenomenon of dryland degradation and desertification (Zika, M. and Erb, K.H. 2009. The global loss of net primary production resulting from human-induced soil degradation in drylands. *Ecological Economics* 69, 310–318.)

The best of two worlds: Project launched on sustainable recycling of scrap metal in Africa

The problems associated with the recycling of e-waste in Africa, for both people and the environment, are well-known. Less well known, though, are the benefits that sustainable recycling can bring. Oeko-Institut's new project aims to investigate and facilitate the transition to sustainable recycling solutions to recover scarce and valuable metals like platinum, indium etc. from locally generated end-of-life electrical and electronic equipment and end-of-life vehicles, by developing and implementing new strategies for recycling these scrap flows in a manner that respects public health, is environmentally sound, and is socially acceptable.

Together with partners from industry, new recycling structures in Ghana and Egypt are to be set up and tested in pilot operations, with the goal of increasing local value creation. Recycling conducted within the pilot operations has to comply with international social, safety and health standards and should create jobs locally. At the same time, components that cannot be recycled in the region in an efficient and environmentally friendly way are to be exported to specialized high-tech refineries in Europe. Consequently both Ghana and Egypt will become better connected with recycling structures in industrialised countries. The project exclusively addresses locally generated scrap and thereby clearly disassociates itself from the illegal trade of hazardous waste and e-waste.

The consortium of Oeko-Institut, Umicore, Vacuumschmelze and others are working with competent partners in both countries for local implementation: City Waste Recycling Ltd. in Ghana and CEDARE in Egypt. This cooperation combines the strengths of all participants: leading companies in metal recycling and processing, environmental research, project management competencies and a strong local presence in Ghana and Egypt. The project will be carried out between June 2012 and May 2015 and is sponsored by the German Federal Ministry of Education and Research (BMBF) within the scope of the r3program.

Further information is available on the resourcefever-website:

http://www.resourcefever.org/project/items/global_circular_economy_of_strategic_metals.html

Contact at Oeko-Institut:

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Servicizing Policy for Research Efficient Economy, by Vered Blass

Several IE groups from Israel and Europe recently started a new project on the topic of Servicizing Policy for Research Efficient Economy (SPREE) within the environment theme under the EU Seventh Framework Program (FP7). The SPREE project began on July 2012 and is due to end on June 2015 with a EU funding of 2.4 Million Euros. The SPREE international consortium consists of 10 partners from 7 different Member states & Associated Countries (The UK, Sweden, The Netherlands, Spain, Lithuania, Finland and Israel). The aim of SPREE project is to identify potential "Servicizing Policies Packages" and simulate their effect on absolute decoupling of economic growth and resource use, within three sectors: water, mobility and agri-food. The SPREE project is constructed upon four key-elements: Conceptualization and detailed definition of Servicizing; Methodology that includes an advanced Agent Based Modelling (ABM) approach to structure and test options for Servicizing Systems and Policies; Case studies in the partners' countries; and policy agenda. The key deliverable are 'Servicizing Policy Packages' that exploit existing synergies to achieve a truly sustainable economy where economic growth is decoupled from environmental impact, while achieving societal objectives such as an increased quality of life.

The International Symposium on Life Cycle Assessment and Construction

The conference (<http://lca-construction2012.ifsttar.fr/index.php>) was co-organized in Nantes, France, from 10-12 July 2012, by **IFSTTAR**, the French Institute for Transports, Development and Networks (formerly LCPC) and **CSTB**, the French Scientific and Technical Center for Buildings, under the scientific auspices of 3 international organizations: **RILEM**, the International Union of Laboratories and Experts in construction Materials, systems and structures, **ISIE**, the International Society for Industrial Ecology, and **SETAC**, Society of Environmental Toxicology And Chemistry. It was also encouraged by **EcoSD**, the French network of researchers and industrials in eco-design, and **LIRGeC**, the regional network of researchers in civil engineering. The symposium benefited from the institutional partnerships of the **French Ministry for Ecology, Sustainable Development and Energy**, the **region Pays de la Loire**, and **Nantes Métropole**. The symposium was also sponsored by **Bouygues construction**, **Lafarge**, **Cycleco**, **Cimbéton** and **Pwc**.

Three keynote lecturers were invited: **Pr Jeroen Guinée** (University of Leiden, the Netherlands), **Pr Arpad Horvath** (University of Berkeley, USA) and **Pr Niklaus Kohler** (EPFL, Switzerland).

The scientific program of the two first days included 41 presentations in the following session topics:

- Life Cycle Inventory data: validation, aggregation, uncertainties
- Methods for buildings
- Decision and management
- Life Cycle Assessment case studies for buildings and infrastructures
- Dynamic Life Cycle Assessment, service life and indicators
- Methods for construction materials
- End of Life, waste and allocation

A poster session was also organized with 20 posters.

The third day of the symposium was dedicated to exchanges between research and practitioners through invited presentations and round tables. 165 participants attend the symposium from 23 different countries: Austria, Belgium, Brazil, Canada, Croatia, Czech Republic, Denmark, Finland, France, Germany, Hungary, India, Ireland, Italy, Israel, Luxembourg, Malaysia, Netherlands, Spain, Sweden, Switzerland, United Kingdom and United States of America.

The **best article award** was delivered by the scientific committee and offered by **Bouygues construction** to:

Mrs Sarah E. Horvath and **Zsuzsa Szalay** from the Department of Building Constructions, Faculty of Architecture in **Budapest University**, for their article entitled *"Decision-making case study for retrofit of high-rise concrete buildings based on life cycle assessment scenarios"*.

The proceedings of the symposium will be freely available on the **rilem** website (www.rilem.net) next September.

The **numerous and enthusiastic returns of the participants and keynote lecturers** encourage thinking about a second edition in a few years. The organising committee would be happy to help for a future organization. Please contact anne.ventura@ifsttar.fr.

3rd ISIE Asia Pacific Meeting at Tsinghua University, Beijing

From Oct 20-21, the 3rd ISIE AP meeting was held at Tsinghua University Environment School, Beijing. Nearly 200 delegates from 15 countries participated actively in this event. Tsinghua University President Chen, Ji Ning (陈吉宁) and ISIE President-elect Marian Chertow (Yale University) opened the event, with Academician Qian Yi (钱易) hosted the ceremony.

Keynote speakers of the event include ISIE Founding President Thomas Graedel and Marian Chertow (Yale University), Yuichi Moriguchi (Tokyo University), Gjalt Huppes (Leiden University), Hung Suck Park (Ulsan University), and Academician Lu, Zhong Wu (陆钟武) of the Northeastern University, China. Graedel overall discussed the discipline of Industrial Ecology, especially on his research progress on the substance flow analysis of various elements in the periodic table. Moriguchi provide the audience a recap of the industrial ecology development in Asia Pacific, as connected to his work in material flow accounting. Industrial symbiosis, life cycle assessment, eco-industrial park development, and other national issues were deliberated in the six (6) keynote speeches, sixty-two (62) technical presentations, and thirty-four (34) poster sessions.

The event concludes with the common recognition that industrial ecology plays a vital role in steering the Asia Pacific towards sustainable development. There is a call for The ISIE Asia-Pacific Meetings to contribute to realizing the imperative but challenging goal, in particular by highlighting the application of IE to the Asia Pacific and nurturing the development of the next-generation industrial ecologists. Shi, Han at the concluding report urged the audience to continue working for the sustainable development, while the event served only "tossing out a brick to attract jade".



Professors and students alike pay attention to many student research output at the poster session

Prof Park

presenting a technical paper in the session



Academician Lu offered a toast at the Gala Dinner in a Royal Palace venue.

Gordon Research Conference on IE, June 2012 - Fun Pictures



ISIE 2013—Call for Abstracts

The International Society for Industrial Ecology (ISIE) will hold its 7th International Conference (ISIE 2013) between June 25 to 28, 2013 in Ulsan, South Korea.

For more information visit <http://is4ie.org/isieulsan>

ISIE 2013 will include parallel sessions for presentation of papers, as well as separate poster sessions. In both cases, we ask that potential presenters submit abstracts of no more than 300 words (text only). Note that no written papers will be required for the conference, only abstracts.

In completing the abstract submission form please select the most appropriate numbers (up to three categories) from the list of topics below. (This list of topics is to facilitate the process of reviewing abstracts and organising those accepted and is subject to change as the conference program evolves).

Paper / Poster Presentation and Publishing

To have an abstract or poster included in the Conference Book of Abstracts, at least one author must be registered by **March 15, 2013** and present the work at the Conference.

Submission deadline: **November 30, 2012**

Notification of acceptance: **February 15, 2013**

Abstract Submission: <http://isie2013.ulsan.ac.kr/website/05submission01.php>

Upcoming Conferences

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| <ul style="list-style-type: none"> • Baltic Inert Material Management Symposium (BIMMS), November 21 and 22, 2012, Stockholm, Sweden www.bimms.org • “Applying Industrial Ecology Principles to Promote Sustainable Structural Materials – Exploring New Frontiers”, which will be held during the First International Conference on Performance-based and Life-cycle Structural Engineering (PLSE 2012), 5-7 December 2012, Hong Kong
http://www.polyu.edu.hk/fce/PLSE2012/ • The 10th Business Innovation & Tech Mgt Conf., Jan 20-22, 2013, Howard Civil Service International House, Taipei, Taiwan (Elsevier Procedia - ScienceDirect/Scopus indexed) • 5th International Conference on Life Cycle Management March 24-27, 2013, Mendoza, Argentina
http://www.cilca2013.org/ • The 11th Business Innovation and Technology Management Conference, May 17-19, 2013, 11th Busi- | <ul style="list-style-type: none"> ness Innovation and Technology Management Conference, Tsinghua University, Beijing, China (IEEEExplore Indexed) • Waste to Energy, plus recycling June 5-7, 2013, Bremen Exhibition Centre, Germany
http://www.wte-expo.com/ • SUSTAINABLE CONSUMPTION RESEARCH AND ACTION INITIATIVE (SCORAI), JUNE 12-14, 2013, CLARK UNIVERSITY, WORCESTER, MA, USA HTTP://SCORAI.ORG/CLARK-UNIVERSITY-2013/ • ISIE 2013 Conference, June 25-28, 2013, Ulsan, Korea
http://isie2013.ulsan.ac.kr/website |
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Open Positions

Call for a 3-year Ph.D. position at the Institute of Social Ecology, Vienna, Austria

The Institute of Social Ecology (Alpen-Adria University) invites applications for a 3-year Ph.D. position based in Vienna, Austria. The candidate should have finished his/her Master's degree with a focus on participatory and stakeholder processes and should be familiar with some of the tools (e.g. SMCE, FCM, etc.) used to mediate science and society. Candidates with an interdisciplinary background and exposed to research fields such as ecological economics, social and human ecology, and sustainability science in general will be preferred.

The Ph.D. position will be part of the newly launched Doctoral School in Social Ecology (DSSE - <http://www.uni-klu.ac.at/socec/eng/inhalt/297.htm>) and the scientific work embedded within an on-going EU project. The Ph.D. topic will be centred around participatory / stakeholder process, the exact details of which are negotiable with the project leader and supervisor. The Ph.D. is to be written in English, but knowledge of German and/or Spanish will be an advantage. The position is expected to start as early as 1st October 2012.

Candidates shortlisted for this position will be invited for a direct interview. Interested candidates to apply via email with a cover letter describing your background, motivation and experience (no longer than 2 pages), along with a CV that includes list of publications and names of three referees who we could contact.

Please send application to: Mag. Barbara Smetschka (Deputy Director, Administration)
Barbara.Smetschka@aau.at

Call for Post-doctoral fellowships at the "University of Michigan Dow Sustainability Fellows Program"

The program seeks accomplished, connected, and motivated postdoctoral fellowship candidates working on sustainability issues. More info at: <http://sustainability.umich.edu/postdoctoral-fellowship>

Post-doc position in the Erb Institute for Global Sustainable Enterprise at the University of Michigan.

This appointment will begin on September 2, 2013. Preference will be given to applications received by Friday, December 14, 2012 and must include the following:

- A cover letter explaining your interest.
- A current curriculum vitae. As an addendum, please include a list of courses taken as a graduate student. A transcript is not required.
- A short (one page, single spaced) description of your background and research interests, and a brief summary of your proposed research. If you are currently a doctoral candidate, please indicate the anticipated schedule of completion of your thesis. The Ph.D. or comparable degree is a prerequisite for this appointment.
- A research proposal for the fellowship tenure. This proposal should outline the methods and aims of research beyond your thesis. Please keep in mind that your project proposal will be read by non-specialists, as well as specialists in your field. Proposals that involve more than one discipline are especially welcome. Proposals should be 5-10 pages in length and should include names of individuals you wish to work with here at the University of Michigan, with preference but not restricted to Erb Institute faculty members.
- Examples of your work. Because reviewers have limited time for reading each application, candidates must limit the number of work samples (two or three) and length of papers. One of these submissions should represent your dissertation (a cover sheet, signature page, and abstract). Do not send a copy of your dissertation.
- A list of three recommenders, including name, affiliation and contact information. Letters of reference should be mailed directly by your recommenders to the Erb Institute.

Please go to "<http://erb.umich.edu/research-initiatives/post-doc-fellowships>" for a full description of the research, service and citizenship expectations of an Erb Institute Post-Doctoral Fellow.

Please send application materials electronically to: Managing Director of the Erb Institute, erbinstitute@umich.edu.

The School of Environment, Enterprise and Development (SEED), in the Faculty of Environment, University of Waterloo, invites applications for a tenured or tenure-track positions at the Associate or Assistant Professor. Preferred candidates include the areas of industrial ecology; sustainable finance, carbon management, organisational behaviour, entrepreneurship and innovation, and environmental management. More info at :

More Positions Are Available at: <http://www.is4ie.org/jobs>

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International Society for Industrial Ecology

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.

WWW.IS4IE.ORG

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Next ISIE Newsletter Schedule

<u>Publication Date</u>	<u>Submission Date</u>
January 31, 2013	January 15, 2013

ISIE Membership Information

Check us out on [LinkedIn](#) and [Facebook](#)!

Visit our website (<http://www.is4ie.org>) to connect with other members of the ISIE community, update your profile, access the JIE electronically, join the conversation in the discussion forums and much more.

To access the Members Only pages, visit www.is4ie.org/membersonly

Consider joining one of the ISIE Subject Sections as part of your membership. The ISIE now hosts six topical sections:

- Material Flow Analysis - ConAccount
- Life Cycle Sustainability Assessment
- Eco-Industrial Development
- Environmentally Extended Input Output
- Sustainable Urban Systems
- Organizing Sustainable Consumption and Production

Information about each section can be found at <http://www.is4ie.org/topicalsections> Subject sections are open only to members of the Society. Join as many of these sections as you would like.

To join a section, sign in to the Members Only pages and click the link to "View Profile". You will see a section within your profile to choose which sections you would like to join. You will then be included on correspondence within that section.
