

THE 7TH INTERNATIONAL
CONFERENCE ON

Life Cycle Management Program



LCM 2015

30 AUGUST - 2 SEPTEMBER 2015
BORDEAUX, FRANCE



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Welcome to LCM 2015

Life Cycle Management (LCM) as the management of life cycles implies a new logic for governance, focusing specifically on the understanding of the flows of natural resources in global value chains, instead of a single nation or company. Furthermore, it is not enough to understand the physical resource flows and the physical relationships in the life cycle. The actors managing the physical flows and the organizational relationships between them must also be understood.

Many types of actors, producers, policy makers, academics and NGOs as well as consumers, have the potential to make a difference with regard to sustainability. And yet, none of them fully controls the value chain. This year's conference theme – Mainstreaming Life Cycle Management For Sustainable Value Creation – was chosen to shed light upon the fact that there is quite some potential for life cycle management to become mainstream. Mostly, because LCM is not only a great way to make sustainability operational in organizations and other levels such as regions, but also because it can help to create measurable sustainable value. As such, the potential for LCM is huge, especially since sustainability has become a megatrend in recent years. This theme includes the importance of local, regional, national and global perspectives for life cycle management, the maturity of different actors that can make the difference and the relations between divergent theoretical and practical conceptions of sustainable value creation.

LCM 2015 is the 7th conference in a series, which was started in 2001 in Copenhagen. Through highly successful events in Barcelona (2005), Zürich (2007), Cape Town (2009), Berlin (2011) and Gothenburg (2013), it is now established as the leading life cycle conference worldwide and one of the most relevant ones for making sustainability a reality. This year's conference in Bordeaux is organised under the umbrella of the Société Chimique de France (SCF), a knowledge society and professional association founded in 1857 to represent the interests of French chemists in a variety of ways in local, national and international contexts. LCM 2015 has been organised jointly by the Life Cycle Group CyVi of the Institute of Molecular Sciences (ISM, which is a joint research unit (UMR) of the University of Bordeaux, Bordeaux INP and CNRS), the International Reference Centre for the Life Cycle of Products, Processes and Services (CIRAIG) hosted by Polytechnique Montréal and the [avniR] platform by cd2e from the French Nord-Pas de Calais Region. In addition, representatives of the companies Airbus DS, Nestlé and Solvay were jointly with a professor of the Institute of Mechanics and Engineering (I2M) located in Bordeaux also engaged in the Organising Committee. In this way, LCM 2015 was prepared in cooperation of academia, research institutes, public associations and industry, which all work together on life cycle management.

The amount and quality of research and implementation of LCM worldwide is truly impressive. We have received more than 80 suggestions for sessions and well over 600 abstracts for contributions.

In spite of increasing the number of parallel sessions from initially planned four to five sessions, it was a difficult task indeed to choose contributions. We especially want to thank the Scientific and Business Advisory Committee for their great support and work in this process.

In total, much similar to LCM 2013, we will have again 40 sessions with more than 200 oral presentations, of which one half will be from business, government and NGO representatives and the other half from academics and research. We've also a huge number of posters, as well as a range of exhibitions, seminars and time for social interaction. We will have a number of nice social events, of which the Gala Dinner in the UNESCO World Heritage labelled Palais de la Bourse will be the most spectacular one.

As part of our objective to innovate the conference format and to boost interaction and inspiration, you will notice that we have lunch events and some sessions differ from traditional ones and are held as workshops to allow for debates. We have taken over these innovations from the Swedish Life Cycle Center, the host of LCM 2013, together with a number of other key elements of LCM 2015 such as the template of the program book as well as the web page and conftool account. And do not miss the opportunity to win one of the newly established multiple LCM awards for young professionals and researchers.

By Wednesday evening, when we will have the General Assembly of the newly created LCM knowledge society and life cycle professional association, the Forum for Sustainability through Life Cycle Innovation (see page 32), we hope that you have all collected not only new perspectives of life cycle management, but also a range of new ideas and partners for further collaboration. On behalf of the Organizing Committee we warmly welcome you to LCM 2015.



GUIDO SONNEMANN
ISM-CyVi
UNIVERSITY OF BORDEAUX



MANUELE MARGNI
CIRAIG
POLYTECHNIQUE MONTREAL



NAEEM ADIBI
[avniR] by cd2e
BUSINESS/ENV CLUSTER

Creating Shared Value... through LCM in businesses

We all have different ways of integrating sustainability strategies in our companies. But we have one thing in common: We strive to think and act using a life cycle management approach to create shared value for all stakeholders throughout our supply chains. The industry partners of the LCM 2015 Organizing Committee (Airbus, Nestlé, and Solvay) would like to welcome you to the 7th International Conference on Life Cycle Management in Bordeaux, France.

For Airbus DS, its customers and partners, protecting the environment and securing long-term sustainability go hand in hand. So we carefully manage the impact of operations at each of our sites, while promoting innovation and eco-design for tomorrow's projects. Airbus DS space technologies, products and solutions help our partners and customers to measure and monitor the Earth and its changes. This is our contribution to creating a more sustainable society.



As LCA has been widely applied across terrestrial industries and almost never in a consistent way within the space sector, specific methodologies have to be developed so LCA can encompass the atypical aspects of space launch. Particularly, this has to deal with preliminary intensive research and development activities, use of advanced materials and processes, use of highly specific space propellants and their incomparable release in the upper layers of the atmosphere.

Advanced material & processes are key elements for the space sector. To ensure innovation and sustainability, development of green technologies is one axis followed by Airbus DS in order to master cost and environmental impacts of its own products.

For a company to prosper over the long term and create value for shareholders, it must create value for society at the same time. This is embedded in the Creating Shared Value (CSV) approach, which Nestlé is committed to. CSV has allowed us to identify Rural Development, Water, and Nutrition as the three key areas in which we want to do business whilst simultaneously creating value for society.



CSV has been implemented in our Research & Development operations among others through the Sustainability-by-Design concept. We apply life cycle thinking and have implemented simplified ecodesign tools in our New Product Development process at all Nestlé R&D sites. The results are taken into account in decision making.

Ultimately, the implementation of simplified ecodesign tools in a company empowers employees to better understand sustainability, and to take action themselves by doing the right thing. Product developers can improve the environmental performance of the products they develop, marketing specialists can communicate to consumers based on fact and in a way that is relevant, factory staff can make sure waste is minimized and equipment runs without wasting energy and water.

The major sustainability challenges we are facing today cannot be solved by life cycle assessment (LCA) specialists alone. We need to scale-up the LCA understanding throughout companies and to the consumers to make sure everyone contributes.

Solvay is strongly committed to deliver chemical solutions fully respectful of the environment, respecting and improving people's lives.



We strive to offer employees a safe and secure working environment that encourages professional development, and maintain a regular dialogue with them in an atmosphere of trust. This exchange is particularly important as they are the key players in our responsible performance.

Our products, that offer solutions keeping clothes clean, water pure, reducing energy consumption through lightweight or energy saving systems for lighting, etc. are designed to contribute to quality of life and meet stakeholders' expectations regarding sustainable development. As a supplier to thousands of industries, we continually look at ways to further reduce the overall impact of their products on the environment, asking chemistry to do more with less.

Because we commit to progress towards our stakeholders, in 2013 we launched Solvay Way, our sustainable development policy that provides a framework to guide and measure our success at meeting our objectives.



LUDOVIC DARIOL
R&T PROJECTS
SUPERVISOR
AIRBUS DEFENCE & SPACE



PATRICK MAESTRO
SCIENTIFIC DIRECTOR
SOLVAY



URS SCHENKER
SENIOR SUSTAINABILITY
SPECIALIST
NESTLÉ

Host of LCM - Organizers 2015

LCM 2015 is hosted by ISM-CyVi and co-organized with CIRAIG and [avniR] Platform under the overall umbrella of SCF. Those organizations have joined forces to provide a Life Cycle Management platform where industry, institutes, academy and government join forces in the ambition to reduce the environmental impact of current and future production and consumption systems.

About SCF

The Chemical Society of France (SCF) is the official organizer of the 7th International Conference on Life Cycle Management. SCF is the science society and professional organization of the chemists in France. It meets the needs and interests of each chemist, represents the French chemists to the various authorities, creates awareness of their needs and defends the collective interests of the profession.



www.societechimiquedefrance.fr

About ISM

The Institute of Molecular Sciences (ISM) brings together a community of organic chemists and physical chemists interested in molecular structures, and working on their creation, synthesis, characterization, reactivity and analysis in various environments. The ISM is a mixed research institute of CNRS, University of Bordeaux and Bordeaux INP. In 2012 ISM founded a new research group on life cycle assessment and sustainable chemistry CyVi with the support of a LCA chair funded by the Region of Aquitaine.



www.ism.u-bordeaux1.fr



About CyVi

The Life Cycle Group CyVi is an interdisciplinary group of scientists working on research methods and applications of life-cycle assessment and other life cycle based sustainability tools for sustainable chemistry and innovation in materials science and process engineering. The objectives of the CyVi group are to develop research on LCA methodology and data in the context of the sustainability assessment of materials and chemical products, to provide courses on life cycle assessment and management in relevant study programmes and to serve as a scientific reference point on life cycle sustainability assessment for socio-economic actors in the Aquitaine region and beyond.



www.cyvigroup.org || Email: cyvigroup@cyvigroup.org

About [avniR] by cd2e

[avniR] by cd2e founded in 2009, is a collaborative platform and a resource center that initiates and supports the economic transition of sectors throughout new development models based on Life Cycle Thinking.



[avniR] works in a collaborative momentum with businesses, industries, academics, consultants and institutions to develop partnerships, share tools, create new collaborative projects, for the emergence of a global and sustainable performance in our society.

www.avnir.org

About CIRAIG

The International Reference Centre for the Life Cycle of Products, Processes and Services (CIRAIG) was created in 2001 at Polytechnique Montréal to develop leading edge academic expertise in sustainable development tools. The CIRAIG is an internationally recognized center of expertise supporting industry, governments, organizations and consumers in their path towards a true sustainable development supported by life cycle thinking. Its main research unit, the International Life Cycle Chair, is supported by ArcelorMittal, Bombardier, Mouvement des caisses Desjardins, Hydro-Québec, LVMH, Michelin, Nestlé, RECYC-QUÉBEC, SAQ, Solvay, Total, Umicore, and Veolia.



www.ciraig.org

Sustainability consideration

Big events like LCM conference, by necessity imply environmental and social impacts. In organizing LCM 2015 we have taken measures to eco-design the event for both reducing negative impacts and encouraging good initiatives.

Bordeaux Convention Centre

The conference hosting center has a strong commitment in the organization of sustainable events in Bordeaux.

- Waste management: establishment of an internal waste collection, waste sorting, recycling of carpets and transformation to new raw materials.
- Valuation of eco-transport: internally with the use of clean and efficient vehicles (electric cars, bicycles ...) and externally incentives in favor of car-sharing, public transport for visitors.
- Reduction of energy consumption (electricity and gas) and water, and optimizing their use on different sites.
- Use of eco-designed Communication tools and booths.

Bags

The bags distributed during the conference LCM 2015 are woven from organic cotton and made in France.

Program Book

This program is printed on paper qualified according to the sustainable forest management. The carbon footprint of this printed product is offset.

We decided not to include the list of posters in the printed version but rather in the downloadable PDF program book available on the LCM website.

A smartphone application is provided to reduce the printing of documents. All the presentations and posters and their associated abstracts are provided in the app.

Catering

A local caterer has been chosen for this conference. It uses local and seasonal products from Region Aquitaine and is known to be part of the label "Traiteurs de France" that requires to follow specific engagement on sustainability. This includes the respect for specific corporate social responsibility (CSR) criteria or the reduction of the impact of their activity through the evaluation of their carbon footprint. Concrete examples are the utilization of reusable dishes and the use of buffets that are made from maritime pine pallets.

Organizing Committee

The organizational arrangements of LCM 2015 have been managed through an Organizing Committee with representatives from universities, institutes and industry. These representatives have been of high value due to their scientific and business expertise as well as their practical experience. We are most grateful to the organizations providing these experts.

Guido Sonnemann

Professor

ISM - CyVi – University of Bordeaux

Manuele Margni

Professor

CIRAIG – Polytechnique Montréal

Naeem Adibi

Project Manager

[avniR] by cd2e

Ludovic Dariol

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Airbus Defense & Space

Patrick Maestro

Scientific Director

Solvay

Nicolas Perry

Professor

I2M – University of Bordeaux / ParisTech

Urs Walter Schenker

Senior Sustainability Specialist

Nestlé

Philippe Garrigues

Research Director

ISM - CyVi - CNRS

Renée Michaud

Executive Director

CIRAIG – Polytechnique Montréal

Christian Traisnel

Director

cd2e - [avniR]

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Alice Salamon

[avniR] by cd2e

Scientific and Business Committee

Successful life cycle management is a collaborative effort across disciplines and sectorial borders, and so is the organization of a LCM conference. We want to express our true gratitude to our Scientific and Business Committee, with active representation from universities, governmental organizations, institutes, non-governmental organizations and business alike. Their commitment and expert knowledge have been invaluable in the set-up and execution of this conference.

Guido Sonnemann – ISM-CyVi – University of Bordeaux, France
Manuele Margni – CIRAIg – Polytechnique Montreal, Canada
Naeem Adibi – [avniR] by cd2e, France
Martin Baitz – Thinkstep, Germany
Mark Barthel – Product Sustainability Forum/WRAP, UK
Mourad Ben Amor – University of Sherbrooke, Canada
Enrico Benetto – Public Research Centre Henri Tudor, Luxembourg
Hélène Bortoli – ADEME, France
Clare Broadbent – World Steel Association, Belgium
Andrea Brown – WBCSD, Switzerland
Guy Castelan – Plastics Europe, France
Andreas Ciroth – GreenDelta, Germany
Sylvain Chevassus – French Ministry of Environment
Cynthia Cummins – WRI, USA
Mary Ann Curran – BAMAC Ltd, USA
Ludovic Dariol – Airbus DS, France

Jacobine Das Gupta – DSM, The Green Take, The Netherlands
Quentin De Hults – BASF, Belgium
Gérard Deroubaix – FCBA, France
James Fava – Thinkstep, USA
Matthias Finkbeiner – Technische Universität Berlin, Germany
Rocío Fernández Flores – ACCIONA Infraestructuras, Spain
William P Flanagan – General Electric US, USA
Jade Garcia – SCORE LCA, France
Philippe Garrigues – ISM/CNRS, France
Eskinder Gemechu – ISM, University of Bordeaux, France
Mark Goedkoop – PRé Consultants, The Netherlands
Sébastien Humbert – Quantis, Switzerland
Atsushi Inaba – Kogakuin University, Japan
Allan Astrup Jensen – Nordic Institute for Product Sustainability, Environmental Chemistry and Toxicology, Denmark
Stephan Krinke – Volkswagen, Germany

Annie Levasseur – CIRAIg/ Polytechnique Montreal, Canada
Philippe Loubet – ISM, Bordeaux INP, France
Bernard Mazijn – Institute for Sustainable Development/Ghent University, Belgium
Christèle Merter – Happy Chic, France
Llorenç Mila I Canals – UNEP, France
Dominique Millet – EcoSD, France
Stéphane Morel – Renault, France
Daniel Normandin – Institute Eddec/ Polytechnique Montreal, Canada
Greg Norris – Harvard School of Public Health, USA
Luiz Ortega – Braskem, Brasil
Philippe Osset – SCORE LCA/Solinnen, France
Sara Palander – Chalmers University of Technology/ Swedish Life Cycle Center, Sweden
Vanessa Pasquet – [avniR] by cd2e, France
Jérôme Payet – Cycleco, France
Nicolas Perry – ENSAM, University of Bordeaux, France
Anne Perwuelz – ENSAIT Roubaix, France
Stephan Pfister – ETH Zurich, Switzerland
Philipp Preiss – EIFER, Germany
Anne Prieur – GDF Suez, France
Martina Prox – Hamburg Institute for Environmental IT, Germany
Gérald Rebitzer – Amcor, Switzerland
Jean Pierre Reveret – University of Quebec, Canada

Emma Rex – Chalmers University of Technology, Sweden
Joan Rieradevall – UAB Barcelona, Spain
Ralph Rosenbaum – ELSA/IRSTEA, France
Elmar Rother – Technische Universität, Germany
Aubin Roy – [avniR] by cd2e, France
Peter Saling – BASF, Germany
Nicolas Salmon – Nobatek, France
Hugo-Maria Schally – European Commission, Belgium
Urs Walter Schenker – Nestlé, Switzerland
Philippe Schiesser – APEDEC Ecodesign Fab Lab, France
Christine Schneider – Henkel, Germany
Sangwon Suh – University of California, USA
Hélène Teulon – Gingko 21, France
Anne Marie Tillmann – Chalmers University of Technology, Sweden
Christian Traisnel – cd2e - [avniR], France
Marzia Traverso – BMW Group, Germany
Sonia Valdivia – World Resources Forum, Switzerland
Bruce Vigon – SETAC, USA
Jean François Viot – Solvay, France
Hongtao Wang – Sichuan University, China
Ying Wang – Innovation Center for U.S. Dairy, USA
Alain Wathelet – Solvay, France
Marc Andree Wolf – maki Consulting, Germany
Steven Young – University of Waterloo, Canada
Sebastian Zinck – Steelcase, France

Themes of LCM 2015

The LCM 2015 program has been developed based on a call for session proposals. We have received more than 80 proposals for sessions and well over 600 abstracts for contributions. We have clustered the main topics into four themes in order to cover main LCM topics of interest. In addition, the clustering permitted us to establish a program in which participants are able to follow the topics while having the least possible overlaps.

POLICY, REGIONAL AND DATA NEEDS FOR LIFE CYCLE MANAGEMENT

Mainstreaming LCM for sustainable value creation
Enhancing collaboration and communication towards mainstreaming LCM
Business-Government Dialogue on Life Cycle Thinking for Sustainability
Environmental footprinting and labeling: Experiences with environmental programs
Mainstreaming LCM in public policy (I - II)
Mainstreaming LCM around the world through ecoinnovation
Mainstreaming LCM in SMEs: The benefits of sectorial approaches
Mainstreaming LCM using a sector based and regional approach for innovation
Generating data: LCA databases and datasets quality, assurance and verification

LIFE CYCLE MANAGEMENT IN BUSINESS PRACTICE

Business perspectives on mainstreaming LCM for sustainable value creation
Strengthening the transition to circular economy by LCM
Global partnerships and collective action to implement LCM
Making the life cycle metrics department more relevant in large organizations: From the Cellar to the Stage
LCM and Communication
Creating shared value and resource efficiency with LCM along the supply chain
What processes from research to practice?
From projects to processes to implement LCM in business
Managing life cycle information from supply chain for LCM

LIFE CYCLE MANAGEMENT IN DIFFERENT SECTORS

From building design to district evaluation with LCM
LCM for buildings; materials and design
LCM for chemicals and materials (I-II)
LCM in the electricity sector
LCM in the energy sector
LCM and the end of life of products and materials (I-II)
Fostering the implementation of LCA in the food and beverage sector
Dealing with food waste in LCA and LCM
LCM for transport and mobility (I-II)
LCM for textiles and leather products

METHODS FOR LIFE CYCLE SUSTAINABILITY ASSESSMENT AND MANAGEMENT

Monetisation: Effective approaches to combine multiple dimensions of sustainability assessment
Practical applications of advanced LCA to LCM (I-II)
Integrating social aspects in LCM
Social metrics initiative
WBCSD Social Metrics Initiative
Organizational LCA (OLCA) is the new tool for LCM
Efficient and successful design methods and tools for sustainable industrial systems (I-II)
Practices for Hotspots Analysis and product sustainability
Quantifying and communicating avoided emissions: panel and discussion on standardization efforts
How collaborative research on Life Cycle may improve LCA practices for businesses: SCORE LCA feedback
LCM and human toxicity evaluation

Program overview



SUNDAY, AUGUST 30

07.00 pm – 09.30 pm WELCOME WINE AND CHEESE RECEPTION - BORDEAUX CONVENTION CENTER

MONDAY, AUGUST 31

	AMPHI A*	AMPHI B	AMPHI C	ROOM E	ROOM F
08.00 am – 09.00 am	Doors open				
09.00 am – 10.30 am	Opening ceremony: Mainstreaming LCM for sustainable value creation				
10.30 am – 11.00 am	COFFEE BREAK AND POSTER SESSION				
11.00 am – 12.30 pm	Plenary: Enhancing collaboration and communication towards mainstreaming LCM				
12.30 pm – 02.00 pm	LUNCH AND POSTER SESSION THEMATIC LUNCH SESSION BY [AVNIR] - ROOM G				
02.00 pm – 03.30 pm	Mainstreaming LCM in public policy - I	Mainstreaming LCM in SMEs: The benefits of sectorial approaches	Managing life cycle information from supply chain for LCM	Efficient and successful design methods and tools for sustainable industrial systems - I	LCM for chemicals and materials - I
03.30 pm – 04.00 pm	COFFEE BREAK AND POSTER SESSION - LCIP AWARDS 2015 - AMPHI B				
04.00 pm – 05.30 pm	Mainstreaming LCM using a sector based and regional approach for innovation	Environmental footprinting and labelling: Experiences with environmental programs	Global partnerships and collective action to implement LCM	Efficient and successful design methods and tools for sustainable industrial systems - II	LCM for chemicals and materials - II
07.00 pm – 08.00 pm	WELCOME RECEPTION AT HOTEL DE REGION				

TUESDAY, SEPTEMBER 1

	AMPHI A*	AMPHI B	AMPHI C	ROOM E	ROOM F
09.00 am – 10.30 am	Plenary: Business perspectives on LCM for sustainable value creation				
10.30 am – 11.00 am	COFFEE BREAK AND POSTER SESSION				
11.00 am – 12.30 pm	From projects to processes to implement LCM in business	Integrating social aspects in LCM	LCM in the electricity sector	Monetarisation: Effective approaches to combine multiple dimensions of sustainability assessment	LCM and human toxicity evaluation
12.30 pm – 02.00 pm	LUNCH AND POSTER SESSION THEMATIC LUNCH SESSION BY ADEME - ROOM G				
02.00 pm – 03.30 pm	Making the life cycle metrics department more relevant in large organizations: From the Cellar to the Stage	LCM for transport and mobility - I	LCM in the energy sector	Organizational LCA (OLCA) is the new tool for LCM	Social Metrics Initiative
03.30 pm – 04.00 pm	COFFEE BREAK AND POSTER SESSION				
04.00 pm – 05.30 pm	Creating shared value and resource efficiency with LCM along the supply chain	LCM for transport and mobility - II	Generating data: LCA databases and datasets quality, assurance and verification	Quantifying and Communicating Avoided Emissions: Panel and Discussion on Standardization Efforts	What process from research to practice?
08.00 pm – 01.00 am	CONFERENCE DINNER AT THE PALAIS DE LA BOURSE				

WEDNESDAY, SEPTEMBER 2

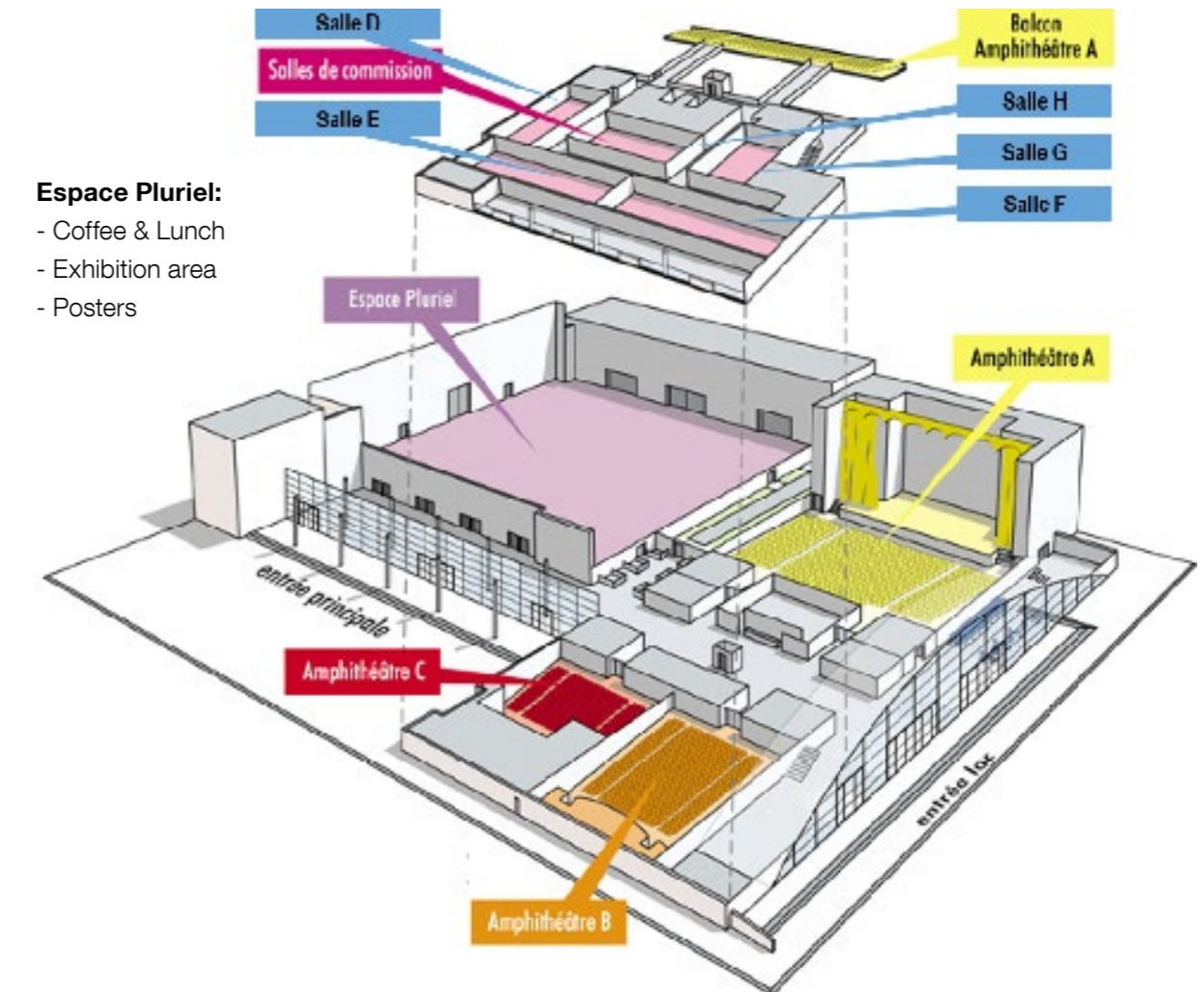
	AMPHI A*	AMPHI B	AMPHI C	ROOM E	ROOM F
09.00 am – 10.30 am	LCM for buildings: Materials and Design	Fostering the implementation of LCA in the food and beverage sector	Mainstreaming LCM in public policy - II	Practices for Hotspots Analysis and Product Sustainability	How collaborative research on Life Cycle may improve LCA practices for businesses: SCORELCA feedback
10.30 am – 11.00 am	COFFEE BREAK AND POSTER SESSION				
11.00 am – 12.30 pm	Dealing with food waste in LCA and LCM	From building design to district evaluation with LCM	LCM and the end of life of products and materials - I	Business-Government Dialogue on Life Cycle Thinking for Sustainability	Practical applications of advanced LCA to LCM - I
12.30 pm – 02.00 pm	LUNCH AND POSTER SESSION THEMATIC LUNCH SESSION BY QUANTIS - ROOM G				
02.00 pm – 03.00 pm	LCM and communication	Practical applications of advanced LCA to LCM - II	LCM and the end of life of products and materials - II	Mainstreaming LCM around the world through ecoinnovation	LCM for textiles and leather products
03.00 pm – 04.30 pm	Closing ceremony: Strengthening the transition to circular economy by LCM				

09.00 am – 10.30 am || Parallel session

UNEP LCM-CMM PILOTS: WHAT COMES NEXT?

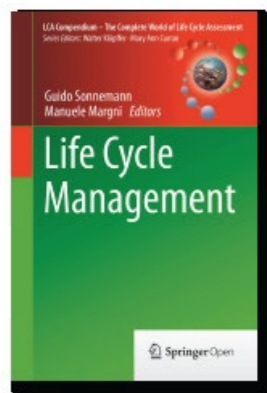
ROOM G - UNEP – Faycal Siddikou Boureima

* Simultaneous translation from English to French provided in Amphi A for the 3 days of conference





springer.com



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 ▶ *93,49 € (D) | 54,99 € (A) | CHF 96,90

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G. SONNEMANN, M. MARGNI (EDS.)

Life Cycle Management

Series: LCA Compendium – The Complete World of Life Cycle Assessment

- Illustrates how Life Cycle Management is or can be integrated into business practice, thereby creating sustainability within organizations
- Provides thorough insight into Life Cycle Management, its origin, evolution and state of practice, including progress made and current challenges
- Sketches the operationalization of Life Cycle Management in organizations and its linkage to business value creation
- Contributors from both research and practice domains offer the reader a qualified and comprehensive understanding of this dynamic and increasingly relevant field of business practice

This book provides insight into the Life Cycle Management (LCM) concept and the progress in its implementation. LCM is a management concept applied in industrial and service sectors to improve products and services, while enhancing the overall sustainability performance of business and its value chains. In this regard, LCM is an opportunity to differentiate through sustainability performance on the market place, working with all departments of a company such as research and development, procurement and marketing, and to enhance the collaboration with stakeholders along a company's value chain. LCM is used beyond short-term business success and aims at long-term achievements by minimizing environmental and socio-economic burden, while maximizing economic and social value.



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The Organizing Committee is honored to introduce you to the following keynote speakers who will share their different perspectives on managing life cycles.



OLIVIER HOMOLLE

PRESIDENT OF CHEMICAL SOCIETY OF FRANCE (SCF)

Olivier Homolle, 57, is President of BASF France and of the Business Centre Western Europe Covering BASF's activities in Belgium, France and the Netherlands since 2002. He is President of the Chemical Society of France (SCF) and of the Union of Chemical Industries (UIC). Moreover, he is administrator of the French Federation of the Sciences of Chemistry and of the International Foundation of the Maison de la Chimie.



PHILIPPE GARRIGUES

DIRECTOR OF INSTITUTE FOR MOLECULAR SCIENCES, ISM

Dr. Philippe Garrigues is a CNRS Research Director and currently the Head of the Institute of Molecular Sciences (ISM, UMR 5255 CNRS) at the University of Bordeaux 1 with around 200 researchers involved in various chemistry aspects. His research interests are the analytical aspects related to the detection of organic pollutants (mainly PAC) and the environmental fate and the toxicological effects of these compounds. He has been involved in the development of biochemical markers as early warning systems for the toxicological evaluation of ecosystems through the coordination of large research projects (i.e. BIOMAR, BEEP) supported by the DG Research (European Commission, Brussels).



CHRISTIAN TRAISNEL

DIRECTOR OF CD2E - [AVNIR] AND TEAM²

Christian Traisnel is the head of the [avniR] international LCA platform located in North of France. He is also the director of cd2e since its foundation in 2001 and has guided its emergence from a single person structure to an internationally recognized expert center on sustainable and environmental technologies. In addition, he is the General Director of TEAM2, a national cluster in France working on recycling and circular economy. Christian has more than 10 years background in industry. He started as a Turbo compressors and Cement Engineer. Where he founded a Hexa Consulting and Itera.

Keynote speakers cont.



HUGO-MARIA SCHALLY, HEAD OF UNIT ECO-INNOVATION AND CIRCULAR ECONOMY AT THE EUROPEAN COMMISSION

Dr. Hugo-Maria Schally, Head of Unit eco-innovation and circular economy at the European Commission. Since 1st June 2014 he is heading a unit at the Directorate General “Environment” of the European Commission dealing with “Eco-innovation and circular economy”. After graduating from law school (University of Graz, Austria) he practiced law in Austria for several years. He then did postgraduate studies in international relations at the Vienna Diplomatic Academy. In his further career he worked mainly on issues linked to sustainable development holding jobs with UNDP, the Austrian Ministry for Foreign Affairs and the Organisation for Security and Co-operation in Vienna. He joined the European Commission in 1998 and has been a Head of Unit in the Directorates General “External relations”, “Development” and “Environment”.



LIORENÇ MILA I CANALS, PROGRAMME OFFICER AT UNEP

Llorenç Mila i Canals is a generalist environmental scientist with a focus on environmental assessment of food products, and a strong passion to reduce the environmental impacts of human systems. His research focuses on Life Cycle Assessment (LCA) of biotic systems, particularly on impacts from the use of land and water resources on climate change (carbon footprint) and water scarcity (water footprint). Specialties: Environmental Assessment of products and services, mainly through LCA.



JAMES FAVA, CHIEF SUSTAINABILITY STRATEGIST AT THINKSTEP

James Fava, as Chief Sustainability Strategist for thinkstep and with over 25 years of experiences in the sustainability space, he helps the world's businesses scale sustainability. He is founder of the SETAC LCA Advisory Group which created the technical foundation for life cycle assessment as it is known today, headed the U.S. delegation in the development of ISO LCA standards, is co-founder and currently co-chair of the UNEP/SETAC Life Cycle Initiative's PMO and Chief Executive Officer of the Forum for Sustainability through Life Cycle Innovation. For over 20 years, he has directed (and founded) the Product Sustainability Roundtable which has become has been the premier community of practice in the product sustainability space. James holds a PhD in Environmental Toxicology from the University of Maryland, College Park, USA.



PETER SALING, DIRECTOR SUSTAINABILITY METHODS AT BASF

Dr. Peter Saling, born in 1964 in Hildesheim, Germany, studied chemistry at the University of Göttingen. In 1993 he joined the BASF AG in Ludwigshafen. After four years of research activity in the field of dyes he started in 1997 to establish and implement the methodology for eco-efficiency analysis in collaboration with the consulting firm Roland Berger and Partner in BASF. To date, he has performed together with the eco-team, more than 450 projects. Other focal points of his work include the development of toxicological models, the development of system solutions as well as the work on strategic issues. Moreover, the implementation of social criteria in the sustainability assessment “SEEBALANCE”. Since 2007 he has been the Director of the Working Group Sustainability Evaluation of BASF. Since 2014 he is Director Sustainability Methods at BASF.



PETER WHITE, CHIEF OPERATING OFFICER AT WBCSD

Dr. Peter White joined the World Business Council for Sustainable Development (WBCSD) as Chief Operating Officer in 2013. Previously, he spent over 20 years developing the sustainability program at Procter & Gamble, the world's largest consumer goods company. In the last 7 years, Peter was P&G's Director for Global Sustainability, creator and chair of the Sustainability Leadership Council and a key architect of the company's long term sustainability vision and 2020 goals.

Peter is also a Visiting Professor at the Newcastle Institute for Research into Sustainability at Newcastle University, UK. He also held teaching and research positions at the Universities of Oxford, California (Berkeley) and Arizona, and taught in Nigeria with the UK development charity Voluntary Service Overseas. A biologist at heart and by training, Peter holds a doctorate in Chemical Ecology from Oxford University, and Masters degrees in Zoology (Oxford) and Applied Hydrobiology (London).

Keynote speakers cont.



ANNE-MARIE BOULAY, WULCA PROJECT MANAGER AT CIRAIG AT ECOLE POLYTECHNIQUE DE MONTREAL

Anne-Marie Boulay finished her PhD in 2013 in the field of water and LCA. She is now leading the working group WULCA (Water Use in LCA) of the UNEP/SETAC Life Cycle Initiative and the Canadian delegate for the ISO Water Footprint standard committee (TC207/SC5/WG8). She coordinates the consensus building process and leads the scientific work into achieving a harmonized method for assessing water use in LCA, involving key method developers and stakeholders through an international collaborative effort.



SANJEEVAN BAJAJ, CHIEF EXECUTIVE OFFICER OF FICCI'S QUALITY FORUM

Sanjeevan Bajaj is CEO of FICCI Quality Forum, New Delhi. She is playing a leading role in promoting Life Cycle thinking in India and developing locally relevant models for managing environmental and socio-economic impacts of business decisions. She worked as a banker for 15 years before moving to management consultancy and won several appreciations for consultancy excellence. Sanjeevan holds a PhD in Strategic Management with a Masters in Economics and a degree in Law. Sanjeevan is also currently the President of the Forum for Sustainability through Life Cycle Innovation.



MARTINA PROX, HEAD OF MARKETING AND SALES AT IFU

Martina Prox is dedicated to enabling sustainable production. She's a partner at ifu – The Hamburg Institute for Environmental IT one of the leading providers of Life Cycle Assessment and process modeling software. Martina's passion is sharing knowledge and experiences. So she's also active as a trainer for ifu's software tools and related topics such as LCA, Carbon Footprinting or Material Flow Cost Accounting. As a German delegate she contributes to the development of international standards of the ISO 14 000 series including, ISO 14051, ISO/TS 14067, ISO/TS 14071, ISO/TS 14072 etc. Martina is also Vice President of the Forum for Sustainability through Life Cycle Innovation.



MATTHIAS FINKBEINER, PROFESSOR, CHAIR OF SUSTAINABLE ENGINEERING, DEPARTMENT OF ENVIRONMENTAL TECHNOLOGY AT TECHNISCHE UNIVERSITAT BERLIN

Matthias Finkbeiner is Professor holding the Chair of Sustainable Engineering and Vice-Director of the Department of Environmental Technology at Technical University Berlin. He is Chair of the ISO-Committee TC207/SC5 for Life Cycle Assessment, member of the International Life Cycle Board (ILCB) of the UNEP/SETAC Life Cycle Initiative and appointed for the governing body of the Blue Angel ecolabel. Earlier in his career, he was Manager at the Design-for-Environment Department for Mercedes-Benz Cars at Daimler AG. He has a multidisciplinary background of environmental science, environmental law and an MBA in sustainability management.



STEPHAN KRINKE, HEAD OF ENVIRONMENTAL AFFAIRS PRODUCT, GROUP RESEARCH, VOLKSWAGEN AG

Dr. Stephan Krinke studied chemistry at the University of Stuttgart. He did his Ph.D. thesis at the research centre Jülich in environmental science. Stephan Krinke started his career at Volkswagen AG in 2000, where he held different positions in research and development. Since 2010 he is head of the department Environmental Affairs Product responsible for environmental management systems for the product development of the brand Volkswagen passenger cars as well as life cycle engineering, resource risk assessment and environmental product information for the Volkswagen group. Stephan Krinke is head of the working groups for life cycle assessment of the German and European car manufacturer association VDA and ACEA. He represents the German industry as head of the DIN working group for life cycle assessment and environmental product labels. Stephan Krinke has lectureships at different universities for environmental product design.

Keynote speakers cont.



EUAN MURRAY, CHIEF STRATEGY OFFICER, THE SUSTAINABILITY CONSORTIUM

Euan is responsible for the strategic and organizational development of The Sustainability Consortium (TSC). He oversees TSC's operations in Europe and Asia as well as leading TSC's work on product development, innovation and alliances. Prior to this, Euan was Director of Footprinting at the Carbon Trust, leading the work on product carbon footprinting and carbon labelling. He has also held a number of roles in financial services and strategy consulting. Euan has a BA in Natural Sciences and an MSc. in Materials Science & Metallurgy from Cambridge University, UK. He lives in Edinburgh, UK, is married to Emily and is father to Oscar & Zac.



URS SCHENKER, SENIOR SUSTAINABILITY SPECIALIST AT NESTLÉ

Urs Schenker is working at the Nestlé Research Center in Lausanne, in a team that is responsible for Sustainability and Novel Packaging. He is driving the use of Life Cycle Assessment at Nestlé, and is developing and implementing simplified tools & processes for ecodesign and sustainability evaluations in the Nestlé R&D organization and beyond.



EMMANUELLE Aoustin, CEO, QUANTIS INTERNATIONAL

In her role as CEO of Quantis, Emmanuelle Aoustin is leading change in sustainability and LCA by connecting the fields of science and business like never before. A chemical engineer by training and former manager at Veolia, Emmanuelle has over 14 years of experience working on environmental issues and has specialized in the development, deployment and strategic integration of life cycle thinking in companies' operational processes. Sustainability's key players turn to Emmanuelle for this extensive experience as well as her unique perspective on how to effectively integrate the science of sustainability with an organization's business goals. Emmanuelle will lead a panel of these experts and will walk you through the strategies of companies which are growing with sustainability at the core.



SANGWON SUH, ASSOCIATE PROFESSOR, BREN SCHOOL OF ENVIRONMENTAL SCIENCE AND MANAGEMENT, UNIVERSITY OF CALIFORNIA, SANTA BARBARA

Sangwon Suh's research focuses on the sustainability of the human-nature complexity through understanding materials and energy exchanges between them. Over the past 15 years, he has been working on the theoretical foundations and practical applications of life-cycle assessment (LCA) and industrial ecology. In particular, Dr. Suh has contributed to the applications of input-output Analysis (IOA) to hybrid LCA, material flow analysis (MFA), and ecological network analysis; normalization and allocation in LCA; international standardization of LCA and carbon footprinting; development of LCA databases and policy-support tools; and understanding the drivers of greenhouse gas emissions and climate change. Dr. Suh was appointed a member of the International Resource Panel by the United Nations Environmental Programme (UNEP) and is the Coordinating Lead Author of the Assessment Report 5 by the Nobel prize-winning Intergovernmental Panel on Climate Change (IPCC).



LUDOVIC DARIOL, R&T PROJECTS SUPERVISOR AT AIRBUS DEFENCE & SPACE

Dr Ludovic Dariol is R&T Projects Supervisor at Airbus Defence & Space Research Directorate. He is responsible for developing and overseeing research and technology projects in the area of Propulsion, Innovative Systems Engineering and Environmental concerns. He studied chemistry and engineering at the Ecole Nationale Supérieure de Chimie et de Physique de Bordeaux (ENSCPB), he is doctor in Materials Science and has been the first Airbus DS REACH Officer in charge of implementing process & tools for managing the compliance with the REACH regulation.

Side events – Additional meetings

In relation to the conference a number of additional meetings are organized by participating organizations. Please find the meetings below. For more information on each meeting see the conference webpage. If you are interested in participating in some of the meetings, please contact the specific organizer. The public events are provided here. Please refer to the LCM website for private business meetings.

28 – 30 August 2015

4TH EDITION, INTERNATIONAL SUMMER SCHOOL ON “LIFE CYCLE APPROACHES TO SUSTAINABLE REGIONAL DEVELOPMENT”

The objective of the Summer School is to provide advanced training to undergraduate students, doctoral, post-doctoral students and young professionals, including researchers of less than 30 years, in the specialised field of life cycle approaches, with the purpose to help them to foster sustainable regional development. In this way the school will allow the students to acquire transversal skills in the area of sustainable chemistry and engineering that are highly appreciated by research institutions and industrial employers. The school is organised with lectures by experts, interactive focus groups, workshops and a short course in order to provide up-to-date knowledge and to stimulate the sharing of own ideas among participants. School activities take place in the same neighbourhood, where participants are accommodated. This choice, together with the organisation of a social event and the sharing of common spaces facilitate the team building and the learning processes.

Sunday, 30 August

SHORT COURSE

1ST FLOOR BORDEAUX CONVENTION CENTER

09.00 am – 06.00 pm

Using USEtox 2.0 in life cycle assessment
TOX-TRAIN

Soil quality indicators in Life Cycle Assessment
ADEME et al



02.00 pm – 06.00 pm

Environmental assessment in process industries: Cross sectorial standards and best practices
University of Ghent

Ecological Footprint of Food Production – Chemistry meets Nutrition to set up advanced sustainability concepts
EVONIK

Free GaBi LCA software 7 training
thinkstep



thinkstep

EPD INTERNATIONAL STAKEHOLDER CONFERENCE



Sunday, 30 August
10.00 am – 04.00 pm
ROOM E

Following successful EPD stakeholder events in 2012 and 2013, the International EPD® System is happy to invite all stakeholders interested in and working with Environmental Product Declarations to the EPD International Stakeholder Conference 2015. The event is expected to gather EPD stakeholders from industry, academia and other sectors for a chance to meet and learn about the latest developments in the field of Environmental Product Declarations.

EPD International – Kristian Jelse

LCINT FLAGSHIP 1B – LCIA WORKSHOP

Monday, 31 August
09.00 am – 01.30 pm



ROOM H1
CIRAIG - Anne-Marie Boulay
University of Michigan - Olivier Jolliet

USETOX 2.0 LAUNCH: RECOMMENDED CHARACTERIZATION FACTORS FOR ASSESSING TOXICITY IN LCIA

Monday, 31 August: 10.30 am – 11.00 am
ROOM E2

USEtox – Peter Fantke

ECOINVENT USER MEETING



Sunday, 30 August
01.00 pm – 05.00 pm

ROOM F2

Find out more about the latest version 3.2 and future plans for the database on an open discussion. After a very successful user meeting at LCM 2013, ecoinvent will also be holding a user meeting at this year's conference in Bordeaux, France. The meeting will provide the participants with a more in-depth understanding of ecoinvent 3 and give users the possibility to raise questions and participate in an open discussion. Don't miss the chance to share your experience with ecoinvent and learn more about what ecoinvent 3.2 has to offer!

Ecoinvent – Linda Wegelin

[avniR] THEMATIC LUNCH

Inspire us for the [avniR] conference 2016: Life Cycle Thinking for leading management

Monday, 31 August: 12.30 pm - 02.00 pm
ROOM G



Side events - Additional meetings cont.

Monday, 31 August

LCiP AWARD

03.30 pm – 04.00 pm

AMPHI B



The LCiP Awards promote the best Life Cycle Approaches in organisations from four European regions (Basque Country, Nord-Pas de Calais, Portugal and Wallonia). The winners of each region will be announced by Guido Sonnemann Monday during the first break in the afternoon.

Life Cycle in Practice (LCiP) is a LIFE+ project which helps SMEs in France, Belgium, Portugal and Spain to improve environmental performance of the products and services across the entire Life Cycle in three sectors: Buildings and construction, Energy equipment and Waste management. The aim is to foster a wide-spread uptake of Life Cycle approaches by SMEs by:

- Demonstrating the environmental and business benefits of applying LC approaches through practical application in 32 businesses,
- Providing physical and online resource centres (<http://resources.lifelpip.eu/>) to support regional application of LC Approaches,
- Building capacity in the four project regions for ongoing implementation of LC Approaches through an innovative LC Champion network.

More information: www.lifelpip.eu

[avniR] by cd2e – Aubin Roy

Tuesday, 1 September

TRAINING ON WATER FOOTPRINT ISO 14 046

02:00 pm – 06:00 pm

ROOM H

The standard ISO 14046 on water footprint was published in August 2014. This standard provides requirements and guidelines for assessing the water footprint of products, processes, and organizations.

In order to address the raising concern of companies for water issues, this standard allows LCA practitioners to better assess water related impacts.

This training will present the standard and its application:

- Introduction to ISO 14046
- How to perform a water inventory?
- What about LCI databases?
- Which impact indicator should be considered?
- The new methodology from the Water Use in LCA (WULCA) - UNEP SETAC Life Cycle Initiative working group
- What is the added value for companies? Application examples

This training is dedicated to LCA practitioners who want to increase their knowledge and skills on water stakes and indicators

Presented by Jean-Baptiste Bayart from Quantis and Anne-Marie Boulay from WULCA

ADEME THEMATIC LUNCH

Tuesday, 1 September 12.30 pm - 02.00 pm

ROOM G

Wednesday, 2 September

UNEP LCM-CMM PILOTS: WHAT COMES NEXT?

09.00 am – 10.30 am

ROOM G

UNEP – Faycal Siddikou Boureima

GUIDELINES FOR SOCIAL LCA OF PRODUCTS – MOVING TO A NEXT LEVEL

11.00 am – 06.00 pm

ROOM H

As you can learn from the website of the Social LC Alliance (www.social-LCA.org), we want to be a platform, a knowledge centre and a learning network of experts coming from enterprises, social organisations and institutes, knowledge centres and consultants, authorities and other relevant actors who - from their specific knowledge and acquaintances - want to work (together), in other words form an alliance, especially around 'life cycle sustainability assessment' (LCSA).

One of the projects regards the Social LCA. Since the publication of the Guidelines for social life cycle assessment of products (2009) numerous colleagues have been using them as a basis for further methodological work, for case studies, for developing quick scans, etc. It is time now to draw from this expertise and experience in order to move to a next level.

The purpose is to go through a participative and collaborative process, similar to the one between 2004 and 2009, resulting in a new publication as an addendum to or a revision of the guidelines. There are two differences with the previous period: 1) worldwide the network of experts in social LCA is much more extended and 2) ICT developments allow us now to organise webbased meetings as well.

the Social LC Alliance – info@social-lca.org

QUANTIS THEMATIC LUNCH

12.30 pm - 02.00 pm

ROOM G

Lunch&Learn: How to get teams on board with the Life Cycle Perception serious game? Test your LCA knowledge, bust some myths, and learn how to create multi-stakeholder engagement, while we play a giant Life Cycle Perception game during this lunch-time session. The LCP game has been played and approved by more than 12,000 users worldwide. Come to play and learn what all the buzz is about!

Thursday, 3 September

LCA DATABASE CONFORMANCE CRITERIA

04.00 pm – 06.30 pm

ROOM E

UNEP/SETAC Life Cycle

Initiative – Faycal Siddikou Boureima



Side events - Additional meetings cont.

Excursion



Thursday, 3 September
ROOM F

FSLCI Inaugural Forum on Sustainability through Life Cycle Innovation

The FSLCI is the first and only global membership organization that is conceived by the Life Cycle Community, for the Life Cycle Community. It has been launched recently by a number of recognized Life Cycle experts from around the world with the objective to become the global knowledge society and professional association, in which life cycle management practitioners can become members to advance life cycle management globally.

The FSLCI seeks to:

- serve the global Life Cycle Community by providing secretariat services to interested Life Cycle conferences, coordinating events among different Life Cycle networks, and by providing a jobs portal and experts directory;
- bring the Life Cycle Community together, share information and insights/learnings in industry and academia and facilitate stakeholder outreach to such organisations for the implementation of Life Cycle Innovations worldwide;
- help understand the value of life cycle information and how to apply life cycle approaches in business for ex-

ample by developing relevant stories with opinion leader magazines or materials on life cycle thinking for leading business.

FSLCI members benefit for example from getting access to a neutral online forum to discuss all things life cycle, from advanced features of the FSLCI job market and from rebates on conference fees around the world, among other things.

On the 2nd of September, the FSLCI will convene its members for the first General Assembly to vote into office a new Board of Directors. The General Assembly will take place, right after LCM's Closing Ceremony from 5 – 7pm.

In addition and as part of the LCM 2015's partnership with the FSLCI, a special day for friends of FSLCI will be organized around the following three workshop topics on the 3rd of September, which won't be covered during the LCM 2015:

1. Principles for Life Cycle Professionals
2. Enhancing Communication to Mainstream Life Cycle Management
3. The Role of LC Approaches in Management Accounting

More information on the event is available at: <https://fslci.org/fslci-events/>

Join the FSLCI now and save 15% on your first year of membership!

Go to: <https://promo.fslci.org> | Password: LCM2015 or visit the FSLCI right here at LCM 2015 in the booth area!

www.fslci.org || info@fslci.org

A half-day Excursion to discover the Arcachon Bay

29 August, afternoon – 95 €

We propose you a Tour of Gujan Mestras.

After having passed through a part of the massive forested area of Landes and wild Delta of the Leyre, tour of one of seven ports of Gujan Mestras and Oyster tasting. Then, situated nearby, you will discover the seaside resort of Arcachon and its wintry city, together the villas of 'Belle Epoque.' A walk until Parc de Péreire in the direction of the ocean, will unveil for you the charms of a health resort known for the mildness of its seasons.

We will make an excursion by pinnace (typical boat of the Arcachon Bassin) to discover "the island of birds"

Departure from Bordeaux, by bus at 2:00 pm.

We will be back in Bordeaux around 7:30 pm.



A half-day Excursion to discover the Vineyards of St Emilion

30 August, afternoon – 70 €

We propose you a City Tour of Saint Emilion.

Discover a medieval city which was built at the end of the 13th Century. Saint-Emilion remains one of the most interesting towns in France because of the many old buildings confined within a very small space, and the poetic charm of its ruins. It has kept some of its fortifications: collegial church, monolithic church, the king's castle, the square steeple of the Jacobins, the town wall, and the ramparts transformed into gardens.

We offer you a tour in a cellar and wine tasting in a "château" "Cru Classé"

Departure from Bordeaux, by bus at 2:00 pm.

We will be back in Bordeaux around 6:30 pm, just in time for you to attend the Welcome Wine and Cheese Reception.



Sponsors

Companies' interest in Life Cycle Management is growing rapidly. This is reflected not least in the increased interest in the LCM conference series over the years. The driving forces are mainly the business opportunities of taking a holistic perspective on products' sustainability, but also a need to effectively manage new policy requirements, and increased expectations of customers, consumers, and other stakeholders such as investors, shareholders and the general public.

We thank our sponsors for a pleasant collaboration and for providing invaluable support to LCM 2015!

PLATINUM SPONSORS



Due to the policy of encouraging and supporting innovation through the Regional Council of Aquitaine, the Aquitaine region is now the leading region in France with regards to investment in research and innovation. It is also the 4th best-region for job creation and businesses in France. As the third largest metropolitan area in France, it is also the source of the Euskadi Aquitaine Euroregion and provides the Iberian link in the European context.



Nord-Pas de Calais is situated in north of France. Since more than 6 years ago, North of France Regional Council started to mainstream LCM. The Nord-Pas de Calais region is actively perusing an active policy to encourage development of new economic models, through the implementation of Life Cycle Management, Life Cycle Approaches and eco-design. The region implements this regional strategy through [avniR] platform - the north France LCM platform for the integration of the life cycle thinking.



The French Agency for Environment and Energy Management (ADEME), a government agency overseen by the Ministries responsible for Ecology and Sustainable Development, Industry and Research, assists in the implementation of public policies for sustainable development. It provides expertise and consulting services to businesses, local authorities, government agencies and the general public, helping them design and develop projects in five areas: waste management, soil preservation, energy efficiency, renewable energy and raw materials, air quality and reduction of noise pollution. The Agency has the resources to take action at local, national and international level and is backed by an extensive network of partners both in France and around the world.

GOLD SPONSORS



The company, a division of Airbus Group, helps shape the future of air transportation and drives sustainable growth around the world. Based on a deep understanding of ever-changing market needs, Airbus pioneers technological solutions and seeks the most efficient sourcing and manufacturing possible – so airlines can grow and people can connect.



Quantis intends to be recognized as a global leader that helps organizations move toward sustainability through the life cycle approach. Quantis is committed to providing reliable and relevant information based on the life cycle approach, along with innovative tools, to assist our clients in setting and achieving their sustainability goals as well as creating value for their organizations.



The Volkswagen Group with its headquarters in Wolfsburg is one of the world's leading automobile manufacturers and the largest carmaker in Europe. In 2014, the Group increased the number of vehicles delivered to customers to 10.137 million (2013: 9.731 million). The share of the world passenger car market amounts to 12.9 percent. In Western Europe, more than one in four new cars (25.1 percent) is made by the Volkswagen Group. Group sales revenue in 2014 totaled €202 billion (2013: €197 billion), while profit after tax amounted to €11.1 billion (2013: €9.1 billion). The Group comprises twelve brands from seven European countries: Volkswagen Passenger Cars, Audi, SEAT, ŠKODA, Bentley, Bugatti, Lamborghini, Porsche, Ducati, Volkswagen Commercial Vehicles, Scania and MAN.



Cycleco provides companies and communities 15 years of experience in LCA research and applications. Our expertise in research and training, and diversity of case studies on LCA, eco-design and environmental labeling helps us to provide a wide range of services in: LCA tools & studies, Trainings and Research & Development.



Thinkstep enables companies around the world to consider their environmental and social impact and provides them with a sound decision-making basis to succeed sustainably. Our software, data and services help drive operational excellence, product innovation, brand value and regulatory compliance.

Sponsors cont.

SILVER SPONSORS



The Laboratory of Excellence (LabEx) on Advanced Materials by Design (AMADEus) has the overall ambition to become a worldwide-recognized cluster in materials science, engineering and technology, carrying out scientific research and innovation at the interfaces of chemistry, physics, biology and engineering.



Nestlé is the world's leading Nutrition, Health and Wellness company. Our mission is to provide consumers with the best tasting, most nutritious choices in a wide range of food and beverage categories. When you join us, you'll find that our commitment to produce foods that uniquely fulfill people's needs is the key ingredient in everything we make.



As an international chemical group, SOLVAY assists industries in finding and implementing ever more responsible and value-creating solutions. Solvay generates 90% of its net sales in activities where it is among the world's top three players. It serves many markets, varying from energy and the environment to automotive and aerospace or electricity and electronics, with one goal: to raise the performance of its clients and improve society's quality of life. The group is headquartered in Brussels, employs about 26,000 people in 52 countries and generated 10.2 billion euros in net sales in 2014.



BASF is the world leader in the chemical industry. With more than 112,000 employees, we work with customers and partners in almost all countries of the world. In France, BASF is a major partner of industry and agriculture. BASF's products and solutions contribute to conserving resources, ensuring good nutrition, and improving quality of life. Sustainability and innovation are significant driving forces.



At the forefront of sustainability for more than twenty years focused on Life Cycle Thinking. The company has built itself a worldwide reputation as a leader on impact assessments. With state-of-the-art methodology and tools, PRé puts the metrics behind sustainability to create business value. Our services are provided by a team of experts that have one thing in common: they excel at putting metrics into sustainability and enjoy collaborating closely with our clients, who range from LCA experts and sustainability managers to supply chain, R&D and marketing and sales departments.



Labelled from the first round of calls for proposals, the Excellence Initiative of the University of Bordeaux (Bordeaux IdEx) is a comprehensive and coherent investment program designed to initiate and amplify the long term growth and development of the Bordeaux higher education and research site.

Exhibition area

BRONZE SPONSORS



Amcor is a global leader in responsible global packaging solutions supplying a broad range of rigid & flexible packaging products into the food, beverage, healthcare, home and personal care and tobacco packaging industries.



SCORELCA is a French association created in March 2012, which is aiming to promote and organise cooperation between industrial, institutional or scientific actors. This collaboration is able to promote a positive, shared and recognised evolution of global environmental quantification methods at the European and international level, in particular of life cycle assessment (LCA), and putting them into practice.



FCBA is an industrial cluster with the mission to promote technical progress, and to help improve the performance and quality in the his associated industry. Its scope covers all forest industries, pulp and paper, wood and furniture: forestry, pulp, logging, sawmill, carpentry, joinery, structure, wood-based panels, furniture, packaging and other products.



The main goal of the association EcoSD is to promote exchanges between researchers, between manufacturers and between researchers and industry to create and disseminate knowledge in the field of eco-design systems for sustainable development in France and beyond to recognize the French expertise in EcoSD internationally.

Take the opportunity to meet the LCM 2015 sponsors and exhibitors during lunches and coffee breaks.



About Bordeaux

Located in south-west of France, the beautiful city of Bordeaux crossed by the large river “Garonne”, is renowned for its wines, which are considered amongst the best in the world. As the capital of the Aquitaine region Bordeaux has around one million inhabitants in its metropolitan area, which makes it the sixth largest center of urban population in France.

*A rostral column on the
“Place des Quinconces”*



Bordeaux is classified as “City of Art and History”. The city is home to the most historical monuments in France after Paris including some buildings dating back to Roman times. Bordeaux has been inscribed on UNESCO’s World Heritage List as “an outstanding urban and architectural ensemble”. It is also recognized for its historic role as a place of exchange of cultural values over more than 2,000 years, particularly since the 12th century due to commercial links with Britain and the Netherlands. Bordeaux has always been a dynamic, cosmopolitan city and one of the most attractive municipalities in France. So it is no surprise that Bordeaux has been awarded as the “European Best Destination 2015”.

Bordeaux is not only known worldwide for the quality of its wines but also for its industry, culture and education. In fact, Bordeaux has got a lively university community of around 80,000 students, including more than 7,000 foreign students. It is also the production site of many multinational companies, leaders in different sectors such as aerospace and defense as well as chemical products and materials.

The first sector alone employs more than 40,000 people. It is also the place for all kinds of innovations supported by incubators, as demonstrated by multiple start-ups in the area of informatics and the creation of the “Laser mégajoule”, which will provide many benefits for scientific research on medical care and other disciplines.

*Bordeaux, European best destination 2015
Copyright: Christophe Bouthe*



Social events

The LCM conference series is not only about the scientific program. It also gives participants a great opportunity to meet and discuss under less formal conditions.
The Organizing Committee hopes you will join us during the social events.

WELCOME “WINE AND CHEESE” RECEPTION

30th August, 7.00 pm

The Welcome Wine and Cheese Reception will take place on Sunday 30th August, in the Reception Hall of the Bordeaux Convention Center with its panoramic bar overlooking the lake.

This cocktail is free of charge, however pre-registration is mandatory. It is however included in the registration.

The conference starts with
a “Wine and Cheese” Reception

WELCOME RECEPTION AT THE HEADQUARTER

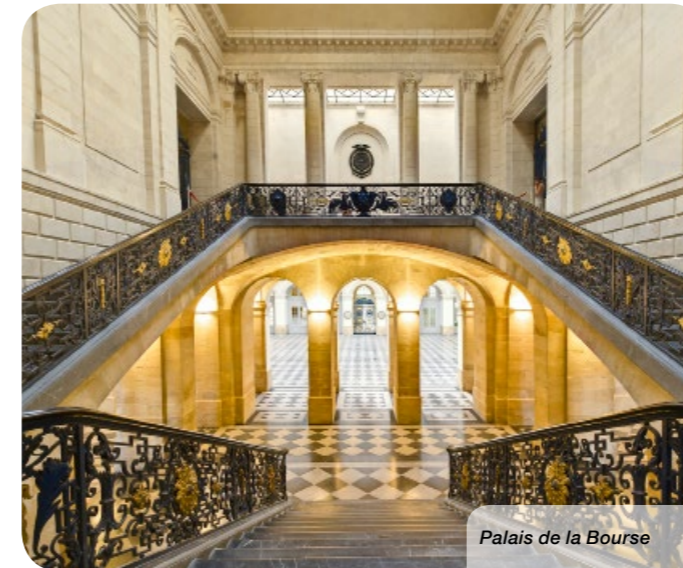
31st August, 7.00 pm

A welcome reception will be hosted on 31st August at the “Hotel de Region”, of the Region Aquitaine, in Bordeaux.

Tram station “Hotel de Region”, line A.

From the conference centre take line C to “Porte de Bourgogne” and then line A from “Porte de Bourgogne” to “St Bruno – Hotel de Region” (45 min).

Headquarter of the
Region Aquitaine



Palais de la Bourse

Or the reflecting pool, echoing the Garonne River?

Everyone who sees it is impressed and charmed.

Bordeaux’s Palais de la Bourse is an up-to-date event venue equipped with the latest technology in a superb historic setting, which gives it a unique cachet.

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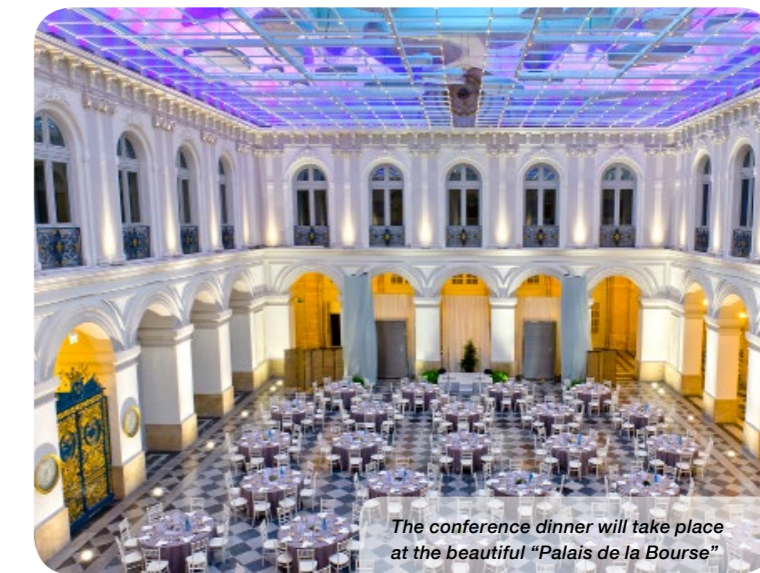
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The conference dinner will take place
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Avenue Jean-Gabriel Domergue – 33300 Bordeaux
Latitude : 44.8822 / Longitude : -0.5671
Parking for visitors and delegates: rue du Cardinal Rich-
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Delivery access: Avenue Jean-Gabriel Domergue

From Bordeaux St Jean Train Station:

Tramway Line C / Direction “Parc des Expositions”
Stop “Palais des Congrès” (30 minutes)

From Bordeaux Downtown:

At “Place des Quinconces”, Tramway Line C / Direction
“Parc des Expositions” - Stop “Palais des Congrès” (20
minutes)

From Bordeaux-Mérignac Airport:

By car, take the ring road towards Paris then Exit 4,
Parc des Expositions (15 minutes).

By Bus & Tramway: Take the “Lianes 1+” and get off at
the stop “Poste de Mériadeck”, and change to the “Li-
anes 3+” bus towards to the “Quinconces” terminus (50
minutes)

Then take the Tramway Line C / Direction “Parc des
Expositions” - Stop “Palais des Congrès” (20 minutes).

Bordeaux from the air



*The Water Mirror on the
“Place de la Bourse”*

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From the A10 motorway, take the ring road towards Mérignac Aéroport and turn off at Junction 4, Bordeaux-Lac/Parc des Expositions. From the N89, take the N230 towards Lormont, then the ring road towards Mérignac Aéroport and turn off at Junction 4, Bordeaux-Lac/Parc des Expositions. From the A62 and A63, take the ring road towards Mérignac Aéroport and turn off at Junction 4C, Parc des Expositions. There are 15000 free car parks including 8000 closed to Parc des Expositions available.
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*Bordeaux River
Festival 2015*

Practical and Poster information

CONFERENCE REGISTRATION

The conference registration fee includes admission to all conference sessions, the poster area and exhibition area. It also includes lunch and refreshments during breaks.

REGISTRATION/INFORMATION DESK IS OPEN

Sunday 30/08: 03.00 pm – 07.00 pm

Monday 31/08: 08.00 am – 05.30 pm

Tuesday 01/09: 08.00 am – 05.30 pm

Wednesday 02/09: 08.30 am – 04.00 pm

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ERRATA SHEET

If you do not find your presentation or meeting in the program book, please check the errata sheet in your delegate bag.

TWITTER hashtag: #LCM2015

LUGGAGE

Luggage can be taken care by Palais des Congrès from August 31 to September 2.

IN CASE OF EMERGENCY

In case of emergency use the phone number 112.

FREE MOBILE APPLICATION

LCM 2015 available on Playstore and AppStore. A smartphone application is provided (updated during the conference) to reduce the printing of documents. All the presentations, posters, side events and private business meetings are provided in the app including all abstracts.

POSTER INFORMATION

Posters will be displayed according to the list provided on the previous page. Posters will be set up and taken down by the presenting author, according to the time shown below. The presenting author is expected to attend the poster at coffee breaks and during lunch time.

The list of posters is provided in the downloadable PDF program book version available on the LCM website and in the mobile app.

Sunday, August 30

05.00 pm - 07.00 pm Poster setup

Monday, August 31 - Tuesday, September 1

08.00 am – 09.00 am Poster setup

05.00 pm – 06.00 pm Poster take down

Wednesday, September 2

08.00 am – 09.00 am Poster setup

04.15 pm – 05.00 pm Poster take down

Poster session overview

MONDAY

Environmental footprinting and labelling: Experiences with environmental programs
Mainstreaming LCM in public policy
Mainstreaming LCM in SMEs: The benefits of sectorial approaches
Mainstreaming LCM using a sector based and regional approach for innovation
Global partnerships and collective action to implement LCM
Managing life cycle information from supply chain for LCM
LCM for chemicals and materials
Efficient and successful design methods and tools for sustainable industrial systems

TUESDAY

Generating data: LCA databases and datasets quality, assurance and verification
Making the life cycle metrics department more relevant in large organizations: From the Cellar to the Stage
Creating shared value and resource efficiency with LCM along the supply chain
What process from research to practice?
From projects to processes to implement LCM in business
LCM in the electricity and energy sector
LCM for transport and mobility
Monetization: Effective approaches to combine multiple dimensions of sustainability assessment
Integrating social aspects in LCM
Organizational LCA (OLCA) is new tool for LCM
LCM and human toxicity
Quantifying and Communicating Avoided Emissions: Panel and Discussion on Standardization Efforts

WEDNESDAY

Business-Government Dialogue on Life Cycle Thinking for Sustainability
Mainstreaming LCM around the world through ecoinnovation
LCM and communication
LCM for buildings: Materials and Design
LCM and the end of life of products and materials
Fostering the implementation of LCA in the food and beverage sector
LCM for textiles and leather products
Practical applications of advanced LCA to LCM
Practices for Hotspots Analysis and Product Sustainability
How collaborative research on Life Cycle may improve LCA practices for businesses: SCORELCA feedback

Schedule

MONDAY, AUGUST 31: PLENARY SESSION 1

09.00 am – 10.30 am

COFFEE BREAK AND POSTER SESSION

10.30 am – 11.00 am

MONDAY, AUGUST 31: PLENARY SESSION 2

11.00 am – 12.30 pm

LUNCH, POSTER SESSION || THEMATIC LUNCH SESSION BY [avniR]

12.30 pm – 02.00 pm

OPENING CEREMONY

LOCATION: AMPHI A

MODERATOR: GUIDO SONNEMANN, ISM - CYVI - UNIVERSITY OF BORDEAUX

08.00 am Doors open

09.00 am **Joint introductory speech**
Guido Sonnemann, ISM - CyVi - University of Bordeaux
Manuele Margni, Ciraig, Polytechnique Montréal
Naeem Adibi, [avniR] by cd2e

09.15 am **Short welcome statements from host organizations**
Olivier Homolle, President of Chemical Society of France (SCF)
Philippe Garrigues, Director of Institute of Molecular Sciences (ISM)
Representatives of University of Bordeaux, Bordeaux INP and CNRS
Christian Traisnel, Director of cd2e - [avniR] - TEAM²

09.30 am **Welcome speeches**
Ségolène Royal, Minister for Ecology, Sustainable Development and Energy (tbc)
Alain Rousset, President of Aquitaine Region
Representative from Nord-Pas de Calais Region

10.00 am **Circular Economy and Environmental Footprint: Squaring the circle between sustained profitability and credible environmental sustainability**
Hugo-Maria Schally, Head of Unit, Directorate General Environment, Eco-innovation and circular economy at European Commission

10.10 am **Scaling up Sustainable Consumption and Production through Life Cycle Thinking**
Llorenç Mila i Canals, Programme Officer, Division of Technology, Industry and Economy at UNEP

10.20 am Discussion



MODERATOR: JAMES FAVA, THINKSTEP AND FSLCI

12.00 pm **Discussion**

Schedule

MONDAY, AUGUST 31

02.00 pm – 03.30 pm

COFFEE BREAK AND POSTER SESSION || LCiP AWARDS

03.30 pm – 04.00 pm

MAINSTREAMING LCM IN PUBLIC POLICY - I

LOCATION: AMPHI A

CHAIRS: HUGO-MARIA SCHALLY, EUROPEAN COMMISSION
CLARE BROADBENT, WORLD STEEL ASSOCIATION

- 02.00 pm **Mainstreaming EU product policies: Potential advantages and disadvantages**
CARL JOHAN DALHAMMAR¹, Tomohiro Tasaki²
¹Lund University, Sweden; ²NIES, Japan
- 02.15 pm **Product Environmental Footprint – Development of the T-shirt PEFCR**
SANDRINE PESNEL¹, Jérôme Payet^{1,2}
¹CYCLECO, France; ²Ecole Polytechnique Fédérale de Lausanne, Switzerland
- 02.30 pm **Generating road transport sector LCI data set for policy decision support: A Sri Lankan case study**
CHALAKA FERNANDO, Ajith de Alwis
University of Moratuwa, Sri Lanka
- 02.45 pm **German Environment Agency's Minimum Requirements on Packaging LCAs**
BENEDIKT KAUERTZ, Andreas Detzel
IFEU Institut für Energie- und Umweltforschung Heidelberg, Germany
- 03.00 pm **An International Survey on the Cost of Product Category Rules and Environmental Product Declarations**
TOMOHIRO TASAKI¹, Koichi Shobatake², Kenichi Nakajima¹, Carl Dalhammar³
¹National Institute for Environmental Studies, Japan; ²TCO2 Co. Ltd., Japan; ³Lund University Sweden
- 03.15 pm **Discussion**



MAINSTREAMING LCM IN SMES: THE BENEFITS OF SECTORIAL APPROACHES

LOCATION: AMPHI B

CHAIRS: GERARD DEROUBAIX, FCBA, FRANCE
AUBIN ROY, [AVNIR] BY CD2E, FRANCE

- 02.00 pm **Using a capability maturity approach to promote Life Cycle Management in Small to Medium sized Enterprises (SMEs)**
THOMAS E. SWARR¹, Anne-Claire Asselin², Llorenç Milà i Canals², Tracey Colley³, Sonia Validivia⁴
¹Yale University, United States of America; ²United Nations Environment Programme; ³Colley Consulting/ Sustaining Australia; ⁴World Resources Forum
- 02.15 pm **Life Cycle Management in Food and Drink SMEs: Challenges for environmental assessments based on life cycle thinking in SMEs**
REGULA LISA KELLER¹, Niels Jungbluth¹, Saioa Ramos², Birgit Landquist³, Gudrun Olafsdottir⁴, Eva Yngvadottir⁵
¹ESU-services, Switzerland; ²Fundación Azti, Spain; ³SP Technical Research Institute of Sweden, Sweden; ⁴Haskoli Islands, Iceland; ⁵EFLA HF, Iceland
- 02.30 pm **Product classification for enabling systematic and sectorial Life Cycle Assessment in German furniture industry**
JAN L. WENKER¹, Klaus Richter², Sebastian Rüter¹
¹Thünen Institute of Wood Research, Hamburg, Germany; ²Munich Wood Research Institute, München, Germany
- 02.45 pm **Making sustainable critical business decisions along a product value chain: the case of NEHSU FOODS LTD Cameroon Pilot Project**
NAPOLEON FORPAH CHI¹, Judith Ngang², Charles Azong³, Eric Fonghang², Delphine Wah²
¹Watershed Task Group, Cameroon; ²NEHSU FOODS Company LTD, Cameroon; ³London Institute for Information Technology, Cameroon
- 03.00 pm **Step by step from LCA to LCM IN SMEs: Case of Heliopac**
Romain Jost¹, MATHILDE COURBOT¹, Naeem Adibi²
¹Heliopac, France; ²[avniR] by cd2e, France
- 03.15 pm Discussion

MANAGING LIFE CYCLE INFORMATION FROM SUPPLY CHAIN FOR LCM

LOCATION: AMPHI C

CHAIRS: HONGTAO WANG, SICHUAN UNIVERSITY, CHINA
GUIDO SONNEMANN, CYVI, ISM, UNIVERSITY OF BORDEAUX, FRANCE

- 02.00 pm **Activating the hidden data treasure**
BO PEDERSEN WEIDEMA
Aalborg University, Denmark
- 02.15 pm **Framework for assessing social sustainability of supply chain**
TAMARA POPOVIC¹, Ana Carvalho², Andrzej Kraslawski^{1,3}, Ana Barbósa Póvoa²
School of Industrial Engineering and Management, Lappeenranta University of Technology, Finland; ²CEG-IST, Instituto Superior Técnico, Universidade de Lisboa, Portugal; ³Faculty of Process and Environmental Engineering, Technical University Lodz, Poland
- 02.30 pm **Evaluation of water and carbon footprints across the supply chain of the pig meat sector**
XAVIER ALDEA¹, Maria José Amores¹, Desirée Marín¹, Jesús Boschmonart-Rives^{2,3}, Carles Martínez Gasol^{2,3}, Joan Colón⁴, Sergio Ponsá⁴, Isabel Román⁵, Eudald Casas⁶
¹Cetaqua, Spain; ²Inèdit Innovació, S.L., Spain; ³Sostenipra, Institute of Environmental Science and Technology (ICTA), Universitat Autònoma de Barcelona (UAB), Spain; ⁴Grup d'investigació BETA, Universitat de Vic, Spain; ⁵Lavola 1981 SA, Spain; ⁶Innovacc, Catalan Innovation Association for the Pig Meat Sector, Spain
- 02.45 pm **Challenges by applying LCA across value chains**
CHRISTIAN KRÜGER¹, Peter Saling¹, Christoph Balzer², Rob van der Heijden²
¹BASF SE, Germany; ²Shell
- 03.00 pm **eFootprint for integrated environmental management along supply chain @ internet age**
HONGTAO WANG¹, Ping Hou²
¹Sichuan University, China; ²IKE Environmental Technology
- 03.15 pm Discussion



EFFICIENT AND SUCCESSFUL DESIGN METHODS AND TOOLS FOR SUSTAINABLE INDUSTRIAL SYSTEMS

LOCATION: ROOM E

CHAIRS: DOMINIQUE MILLET, ECOSD, FRANCE
SEBASTIEN ZINCK, STEELCASE, FRANCE

- 02.00 pm **Increasing maturity in ecodesign through action research: A longitudinal in-company experience**
Fabien Brones^{1,2}, DANIELA PIGOSSO³, Marly Monteiro de Carvalho², Tim McAloone³
Natura Inovação e Tecnologia de Produtos Ltda, Brazil; ²Polytechnic School - University of São Paulo; ³Technical University of Denmark
- 02.15 pm **An innovative ecodesign approach for communication services**
HELENE TEULON¹, Xavier Durieux², Gentiane Gastaldi¹
¹GINGKO 21, France; ²Orange Business Services, France
- 02.30 pm **Behind the scene of eco-innovation at Renault: from collective action to breakthrough concepts**
STÉPHANE MOREL^{2,1}, Lomig Unger³
¹Mines Paristech, France; ²Renault Engineering, France; ³Renault Innovation, France
- 02.45 pm **New research opportunities in eco-innovation from two years of collaborative research projects**
Flore Vallet², FRANCOIS CLUZEL¹, Yann Leroy¹, Benjamin Tyl³
¹Ecole Centrale Paris, France; ²Université de Technologie de Compiègne, France; ³APESA, France
- 03.00 pm **Challenges when evaluating Product/Service-Systems through Life Cycle Assessment**
LOUISE LAUMANN KJAER¹, Aris Pagoropoulos¹, Jannick H. Schmidt², Tim C. McAloone¹
Technical University of Denmark, Denmark; ²Aalborg University, Denmark
- 03.15 pm **Selecting eco-maintenance strategy for system of renewable energy production**
NICOLAS TCHERTCHIAN, Dominique Millet
SEATECH/ Université de Toulon, France

LCM FOR CHEMICALS AND MATERIALS - I

LOCATION: ROOM F

CHAIRS: GUY CASTELAN, PLASTICSEUROPE, FRANCE
NIKOLAJ OTTE, HENKEL, GERMANY

- 02.00 pm **Mainstreaming LCM though Capability Maturity Model in an Indian chemicals company**
Archana Datta, SANJEEVAN BAJAJ, Sohini Gupta
FICCI, India
- 02.15 pm **Development of life-cycle inventories of chemical substances: Priority needs and call for participation**
EMMANUELLE AOUSTIN¹, Philippe Osset², Olivier Réthoré³, Hélène Bortoli³
¹Quantis, France; ²Solinnen; ³Ademe
- 02.30 pm **Product Environmental Footprint (PEF) of decorative paints: Implementation and results of the PEF screening**
PAU HUGUET FERRAN, Lisa Damen
Ecomatters, Netherlands
- 02.45 pm **Impacts versus benefits of products – sustainability assessment looking at both sides of the coin**
HARALD PILZ
Denkstatt GmbH, Austria
- 03.00 pm **The example of A.I.S.E.'s Product Environmental Footprint Category Rules (PEFCR) pilot project on household heavy duty liquid laundry detergents**
Sascha Nissen¹, Philippe Osset², Delphine Bauchot², CHRISTELLE HENRY³
¹A.I.S.E., Brussels; ²Solinnen, Paris; ³AFISE, Paris
- 03.15 pm **P2P Program: the eco-design, eco-production and eco-elimination of solid propulsion boosters for next generation launchers**
LUDOVIC DARIOL¹, Nicolas Rumeau², Régis Touya³
¹Airbus DS, France; ²Roxel; ³Safran Herakles



Schedule

MONDAY, AUGUST 31

04.00 pm – 05.30 pm

MONDAY
04.00 pm – 05.30 pm

MAINSTREAMING LCM USING A SECTOR BASED AND REGIONAL APPROACH FOR INNOVATION

LOCATION: AMPHI A

CHAIRS: CHRISTIAN TRAISNEL, TEAM², FRANCE
VANESSA PASQUET, [AVNIR] BY CD2E, FRANCE

- 04.00 pm **Life-cycle approaches to regional development**
FRITZ BALKAU¹, Stefania Massari², Guido Sonnemann³
¹Individual, France; ²University of Salento; ³University of Bordeaux
- 04.15 pm **Western Cape regional resource flow model: Using Life Cycle Thinking to examine the resource intensity of agricultural value chains**
Catherine Pineo¹, PIETER FREDERIK JANSE VAN VUUREN¹, Lauren Basson¹, Chris Millson¹, Jim Petrie²
¹GreenCape Sector Development Agency, Cape Town, South Africa; ²Department of Economic Development and Tourism, Western Cape Government, Cape Town, South Africa
- 04.30 pm **Influence of developing LCM notion in Europe to Caucasus and neighbouring regions**
VASIF VALIYEV¹, Gurbuz Comak²
¹Petkim Container Terminal Project, Turkey; ²Petkim Petrochemical Holding, Turkey
- 05.45 pm **Introducing the extended product approach and product category rules for motor systems**
JOHANNES AUER, Benno Weis
Siemens AG, Germany
- 06.00 pm **Mainstreaming Life Cycle Management and ecodesign in the building sector: A sector based and regional approach in Northern France**
MARIE DARUL¹, Naeem Adibi², Vanessa Pasquet², Marion Sié³, Christelle Demaretz⁴
¹cd2e, France; ²[avniR] by cd2e, France, ³Cycléco, France, ⁴Conseil régional Nord-Pas de Calais, France
- 06.15 pm **Discussion**



ENVIRONMENTAL FOOTPRINTING AND LABELING: EXPERIENCES WITH ENVIRONMENTAL PROGRAMS

LOCATION: AMPHI B

CHAIRS: EDOUARD FOURDRIN, ADEME, FRANCE
JÉRÔME PAYET, CYCLECO, FRANCE

- 04.00 pm **The PEPecopassport® program: An international sector-specific framework for Type III environmental declarations**
CAROLINE CATALAN^{1,6}, Charlotte Ingold^{1,6}, Jean-Michel Rossignol^{2,6}, Serge Theoleyre^{3,6}, Pierre-Yves Berthelemy^{4,6}, Emmanuelle Briere^{5,6}, Sophie Barbeau^{1,6}
¹Nexans; ²Legrand; ³Schneider Electric; ⁴Groupe Atlantic; ⁵Uniclima; ⁶PEP association
- 04.15 pm **“Base IMPACTS ®”: Setting up a database to support the French footprint program on mass market products**
OLIVIER RETHORE
ADEME, France
- 04.30 pm **The batteries Product Environmental Footprint: Environmental communication on batteries in BtB**
CLEMENCE SIRET
Saft, France
- 04.45 pm **Investigating options for different compliance systems for Product Environmental Footprint (PEF) declarations**
Olivier Jan, CLÉMENT TOSTIVINT, Marion Sarteel
Deloitte, France
- 05.00 pm **Product Carbon Footprint Study of Lenovo Laptop**
XUN GONG¹, Hongzhi Tao¹, Ge Tang¹, Hongtao Wang², Ping Hou³
¹Lenovo, China; ²College of Architecture and Environment, Sichuan University, China; ³IKE Envion mental Technology Co.,Ltd, China
- 05.15 pm **Discussion**

GLOBAL PARTNERSHIPS AND COLLECTIVE ACTION TO IMPLEMENT LCM

LOCATION: AMPHI C

CHAIRS: PETER R. SALING, BASF SE, GERMANY
STÉPHANE MOREL, RENAULT, FRANCE

- 04.00 pm **From current practice to harmonized cross-sectorial Life Cycle Sustainability Assessment**
DANA KRALISCH
Friedrich-Schiller-University Jena, Germany
- 04.15 pm **Mainstreaming LC Thinking Worldwide – Building Critical Mass in Emerging and Rapidly Growing Economies through Capacity Building**
SANJEEVAN BAJAJ¹, Sonia Valdivia², Cássia Maria Lie Ugaya³
¹Federation of Indian Chambers of Commerce and Industry (FICCI), India; ²World Resources Forum, Switzerland; ³Federal Technological University of Paraná, Brazil
- 04.30 pm **Managing global supplies of technology metals: The Conflict-Free Sourcing Initiative**
Michael Rohwer¹, STEVEN B YOUNG²
¹Conflict-Free Sourcing Initiative, Washington, DC, USA; ²SEED, University of Waterloo, Canada
- 04.45 pm **Collaborations to manage life cycles – identified values from a long lasting commitment between academy, industry and government in Sweden**
SARA PALANDER, Anna Wikström
the Swedish Life Cycle Center/Chalmers University of Technology, Sweden
- 05.00 pm **Industrial chairs – a proven collaboration concept and promising perspective for industry and academia to commonly advance science and improve the management of life cycles**
RALPH ROSENBAUM¹, Agata Sferratore², Sebastien Louvet³, Pascal Dauthuille⁴, Perrine Languet⁵, Stéphane Le Pochat⁶, Catherine Macombe¹, Carole Sinfort⁷, Claudine Basset-Mens⁸, Guillaume Junqua⁹
¹Irstea, France; ²Société du Canal de Provence, France; ³BRL Group, France; ⁴SUEZ Environment; ⁵UCCOAR-Val D’Orbieu Group, France; ⁶EVEA, France; ⁷Montpellier SupAgro, France; ⁸CIRAD, France; ⁹École des Mines d’Alès, France
- 05.15 pm **Review of 5 years of cooperative life cycle management within the European coatings industry**
EMILIE CARASSO², Max Sonnen¹
¹Ecomatters, Netherlands; ²CEPE, Belgium



EFFICIENT AND SUCCESSFUL DESIGN METHODS AND TOOLS FOR SUSTAINABLE INDUSTRIAL SYSTEMS II

LOCATION: ROOM E

CHAIRS: NICOLAS PERRY, ARTS ET MÉTIERS - I2M, FRANCE
STEPHANE LE POCHAT, EVEA, FRANCE

- 04.00 pm **A LCA-integrated mixed-integer multiobjective optimization platform for eco-design of conventional potable water plants and their life cycle networks**
ARAS AHMADI¹, Florin Capitanescu², Ligia Barna¹, Enrico Benetto²
Université de Toulouse, France; ²Luxembourg Institute of Science and Technology, Environmental Research and Innovation (LIST/ERIN), Luxembourg
- 04.15 pm **A tool for LCA and LCC of heat supply systems**
KEVIN MICHAEL KNECHT, Rafael Peter Burri, Niko Heeren, Stefanie Hellweg
ETHZ, Switzerland
- 04.30 pm **Methodology for evaluating the sustainability of products and processes - Application to alternative substitution techniques of chromium VI**
Claire Villemur¹, Marion Delaire¹, CAMILLE JUGY¹, Sébastien Garnier², Leslie Jacquemin²
¹Altran, Blagnac, France; ²Altran Research, Blagnac, France
- 04.45 pm **Development of a tool for Eco-designing AirFrame: LEAF**
Emmanuelle Schloesing¹, AUGUSTIN CHANOINE¹, Yannick Le Guern¹, Gael Sarrieu²
¹Deloitte, France; ²Airbus, France
- 05.00 pm **Multi-criteria decision support for sustainable asset management and its application in the shipping sector**
STEFANIE NIEKAMP^{1,2}, Ujjwal R Bharadwaj¹, Jhuma Sadhukhan², Marios Chryssanthopoulos²
¹TWI Ltd, Cambridge, United Kingdom; ²University of Surrey, Guildford, United Kingdom
- 05.15 pm **Water footprint calculation: Application to urban water cycle**
YWANN PENRU¹, Delphine Antoniucci², Maria José Amores Barrero³, Catherine Chevauché¹
¹Suez Environnement, France; ²Safège, France; ³CETaqua, Spain

LCM FOR CHEMICALS AND MATERIALS - II

LOCATION: ROOM F

CHAIRS: GUY CASTELAN, PLASTICSEUROPE, FRANCE
PHILIPPE LOUBET, CYVI, ISM, BORDEAUX INP, FRANCE

- 04.00 pm **SewageLCI 1.0 – A first generation inventory model for quantification of chemical emissions via sewage systems. Application on chemicals of concern**
AURÉLIE GALLICE¹, Morten Birkved², Sébastien Kech¹
¹Veolia Research & Innovation, France; ²Department of Management Engineering, Technical University of Denmark, Denmark
- 04.15 pm **Integrated Analysis of Solvents for Adhesives**
ANDRÉ MOREIRA CAMARGO¹, Mariana Matera Veras², Délcio Rodrigues¹, Yuki Hamilton Onda Kabe³, Luiz Gustavo Ortega³
¹MACJEN, Brazil; ²USP, Brazil; ³Braskem, Brazil
- 04.30 pm **Unique LCA modeling approaches to developing process benchmarks and hotspots for the global manganese alloy industry**
JULIA DAVOURIE¹, Luke A. Westfall¹, Mohammed Ali¹, Catalina F. Gonzalez¹, Doreen Mc Gough²
¹Hatch Ltd., Canada; ²International Manganese Institute (IMnI), France
- 04.45 pm **Preferable, profitable and possible – the interplay between research approaches and industrial experience in finding common routes to more sustainable industrial systems**
EMMA REX, Johan Torén, Johanna Ulmanen, Johanna Berlin
SP Technical Research Institute of Sweden, Sweden
- 05.00 pm **Environmental Life Cycle Assessment of OEM Automotive Paint Shop Technologies**
REBECCA GLASPIE, Jason Pierce, Josh Seeley
Eastman Chemical Company, United States of America
- 05.15 pm **Life Cycle Assessment as a Tool for Understanding Material Efficiency Strategies relating to the Circular Economy**
NICK COLEMAN¹, Peter Hodgson¹, Stuart Walker²
¹Tata Steel, United Kingdom; ²University of Sheffield, United Kingdom



Posters

MONDAY, AUGUST 31

09.00 am – 05.30 pm

LOCATION: POSTER AREA,
EXHIBITION HALL

ENVIRONNEMENTAL FOOTPRINTING AND LABELING: EXPERIENCES WITH ENVIRONMENTAL PROGRAMMS

CHAIRS: EDOUARD FOURDRIN, ADEME, FRANCE
JÉRÔME PAYET, CYCLECO, FRANCE

M-189-1 Calculation of the absorption amount of carbon dioxide from street trees in Seoul and plans for improvement

MinWoo Park¹, JINDO CHUNG², ByoungUk Im², KyuYeol Kim², SungHoo Kim³, TaeWook Byun⁴, Kyung Wan Koo⁵

¹Graduate School, Dept. of Climate Change Fusion Technology, Hoseo University, South Korea;

²Dept. of Environmental Engineering, Hoseo Univ., S.Korea; ³Dept. of Energy and Environmental Engineering, ShinHan Univ., S.Korea; ⁴Dept. of Co-op Engineering, Hoseo Univ., S.Korea; ⁵Dept. of Army Defense Engineering, Hoseo Univ., S.Korea

M-251-2 The French footprint programme on mass market products from ADEME point of view

OLIVIER RETHORE, Edouard Fourdrin
ADEME, France

M-297-3 Environmental labelling for furniture products: achievements and challenges for SMEs

EMILIE BOSSANNE¹, Edouard Fourdrin²

¹Institut Technologique FCBA, France; ²ADEME (French Environment and Energy Management Agency), Angers, France

M-304-4 Life Cycle Assessment of tomato

XIAOQIN WANG

Northwest A&F University, China, People's Republic of China

M-310-5 Finding common features of material footprints for critical metals and carbon footprint with Japanese household consumption

YOSUKE SHIGETOMI^{1,2,3}, Keisuke Nansai², Susumu Tohno¹

¹Kyoto University, Japan; ²National Institute for Environmental Studies, Japan; ³Research Fellow of Japan Society for the Promotion of Science

M-486-6 Source of systematic uncertainty in the carbon footprint of chilean universities

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Swerea Swecast AB, Sweden
- M-643-91 **A Life Cycle Sustainability Assessment methodology using fuzzy logic**
Alejandro de Jesus Padilla, Juan Manuel Morgan-Sagastume, LEONOR PATRICIA GUERECA
Universidad Nacional Autonoma de Mexico- Instituto de Ingenieria, Mexico
- M-649-92 **Methodology framework for assessing the ecoperformance of a process**
Olivier Kerbrat¹, Jordan Vinckevleugel¹, CAROLINE PENICAUD^{2,3}, Stéphane Le Pochat⁴,
Stéphane Pompidou⁵
*¹IRCCyN, UMR CNRS 6597, France; ²INRA, UMR782 Génie et Microbiologie des Procédés
Alimentaires, France; ³AgroParisTech, France; ⁴EVEA, France; ⁵Univ. Bordeaux, France*
- M-707-93 **LCA on Computer Simulated Agricultural Production Systems**
FERNANDO RODRIGUES TEIXEIRA DIAS ¹, Marilia Ieda Da S. Folegatti Matsuura²,
¹Embrapa Pantanal, Brazil; ²Embrapa Meio Ambiente, Brazil



Schedule

TUESDAY, SEPTEMBER 1: PLENARY SESSION

09.00 am – 10.30 am

COFFEE BREAK AND POSTER SESSION

10.30 am – 11.00 am

TUESDAY, SEPTEMBER 1: PARALLEL SESSIONS

11.00 am – 12.30 am

LUNCH AND POSTER SESSION || THEMATIC LUNCH SESSION BY ADEME

12.30 pm – 02.00 pm

BUSINESS PERSPECTIVES ON LCM FOR SUSTAINABLE VALUE CREATION

LOCATION: AMPHI A

MODERATOR: EMMANUELLE AOUSTIN, QUANTIS INTERNATIONAL

- 09.00 am **Welcome**
Manuele Margni, CIRAIG – Polytechnique Montréal, Canada
- 09.05 am **Organizational LCA: The new member of the ISO LCA family—launching the UNEP/SETAC Life Cycle Initiative guidance document**
Matthias Finkbeiner, Chair of Sustainable Engineering, Technische Universitaet Berlin
- 09.15 am **Life-Cycle Engineering: The roadmap to emission free mobility**
Stephan Krinke, Director Environmental Affairs Product - Volkswagen AG
- 09.40 am **Life Cycle Thinking: Getting to Scale**
Euan Murray, CEO at The Sustainability Consortium
- 10.05 am **Championing for sustainability: How companies are creating excitement for integrated sustainability**
Urs Schenker, Senior Sustainability Specialist - Nestlé



FROM PROJECTS TO PROCESSES TO IMPLEMENT LCM IN BUSINESS

LOCATION: AMPHI A

CHAIRS: MARTIN BAITZ, THINKSTEP, GERMANY
ELMAR ROTHER, EVONIK INDUSTRIES AG, GERMANY

- 11.00 am **From projects to processes in LCM - different companies - different pathways - comparable necessities - consistent basis**
MARTIN BAITZ
Thinkstep, Germany
- 11.15 am **Inclusion of Life Cycle Concepts in Sustainability and CSR Guidelines for Indian Public Sector Enterprises**
ASHOK KUMAR PAVADIA¹, Sanjeevan Bajaj², Archana Datta², Sohini Gupta²
¹*Department of Public Enterprises, Ministry of Heavy Industries and Public Enterprises;*
²*Federation of Indian Chambers of Commerce and Industry (FICCI), India*
- 11.30 am **Good examples – of importance to influence not yet devoted to learn how to benefit from the life cycle perspective**
Johanna Spångberg¹, Sara Palander², Elisabeth Hochschorner³, ANNA WIKSTRÖM²
¹*Swedish University of Agricultural Sciences, Uppsala;* ²*The Swedish Life Cycle Center, Gothenburg;* ³*KTH Royal Institute of Technology, Stockholm*
- 11.45 am **Life Cycle Management and Sustainability as a Business Driver in the Value Chain: How to make it happen**
GERALD REBITZER, Fabio Peyer
Amtcor, Switzerland
- 12.00 pm **I2P³ - Implementation of sustainability assessment as part of strategic innovation management of a large specialty chemicals company**
MARTIN KIRCHNER, Burkard Kreidler
Evonik Industries AG, Germany
- 12.15 pm **Integrating Life Cycle Engineering into the automotive product development process**
FLORIAN BROCH, Stephan Krinke
Volkswagen AG, Germany

INTEGRATING SOCIAL ASPECTS IN LCM

LOCATION: AMPHI B

CHAIRS: BERNARD MAZIJN, INSTITUTE FOR SUSTAINABLE DEVELOPMENT & GENT UNIVERSITY, BELGIUM
JEAN-PIERRE REVÉRET, CIRAIG, CANADA

- 11.00 am **A comprehensive review of evaluation methods in social performance (Type I) S-LCA and their potential for integration with leading CSR frameworks**
SARA RUSSO GARRIDO¹, Luce Beaulieu¹, Jean-Michel Couture², Julie Parent², Jean-Pierre Revéret¹
¹*CIRAIG, Université du Québec à Montréal, Canada;* ²*Groupe AGÉCO, Canada*
- 11.15 am **Materiality Analysis in the Value Chain using E-LCA and S-LCA for GRI G4 Sustainability Reporting**
Pradeep Panigrahi¹, Uday Gupta², RAJESH KUMAR SINGH³
¹*Mahindra Sanyo Special Steel Pvt. Ltd.;* ²*Mahindra Sanyo Special Steel Pvt. Ltd.;* ³*Thinkstep, India*
- 11.30 am **Can organizational level strengthen the implementation of S-LCA?**
JULIA MARTÍNEZ-BLANCO^{1,2}, Annekatrin Lehmann¹, Ya-Ju Chang¹, Matthias Finkbeiner¹
¹*Technische Universität Berlin, Germany;* ²*Inèdit Innovació SL, Spain*
- 11.45 am **PSILCA – A new, comprehensive, interactive database for Product Social Impact Life Cycle Assessment**
FRANZISKA EISFELDT, Andreas Ciroth
GreenDelta GmbH, Germany
- 12.00 pm **Introducing Social Data in Ecoinvent – First results**
CATHERINE BENOIT NORRIS¹, Gregor Wernet², Gregory Norris¹
¹*New Earth, United States of America;* ²*Ecoinvent center, Switzerland*
- 12.15 pm **LCSA methodological framework for a biorefinery case study: Norway versus USA**
Clara Valente, Ingunn Saur Modahl, ANDREAS BREKKE
Ostfold Research AS, Norway



LCM IN THE ELECTRICITY SECTOR

LOCATION: AMPHI C

CHAIRS: BEN AMOR, UNIVERSITÉ DE SHERBROOKE, CANADA
ANNE PRIEUR-VERNAT, GDF SUEZ, FRANCE

- 11.00 am Life Cycle Assessment of decommissioning a nuclear power plant**
MAXIMILIAN SEIER¹, Till Zimmermann²
¹TU Darmstadt, Germany; ²University of Bremen, Germany
- 11.15 am Novel life cycle assessment approaches for flexible electro-chemical energy storage**
FLORIAN BÖSS¹, Georg Markowz¹, Anika Regett², Timo Eickelkamp³
¹Evonik Industries AG, Germany; ²Ffe - Forschungsstelle für Energiewirtschaft e.V., Germany; ³E.ON Gas Storage GmbH, Germany
- 11.30 am Turning data-intensive life cycle framework into policy-relevant communication tools: the case of electricity systems**
THOMAS GIBON, Francesca Verones, Edgar Hertwich
Industrial Ecology Programme, Norwegian University of Science and Technology, Norway
- 11.45 am Life cycle assessment of the high voltage transmission system in Iceland**
Hildur B. Hrólfsdóttir¹, ALEXANDRA KJELD², Gyða M. Ingólfssdóttir², Helga J. Bjarnadóttir²
¹The Icelandic transmission company Landsnet hf., Iceland; ²EFLA Consulting Engineers, Iceland
- 12.00 pm GHG Emission and Energy Payback Time of AC Electricity Generated by SunPower® Oasis® Photovoltaic Power Plant**
LOÏC FRANCKE¹, Marie-Sophie Armand¹, Marissa Yao², Craig Oeser²
¹TOTAL New Energies; ²SunPower Corporation
- 12.15 pm SOLCA, a tool to assess environmental impacts of photovoltaic systems**
Paul Lautridou, JÉRÔME PAYET
Cycleco, France

MONETARISATION: EFFECTIVE APPROACHES TO COMBINE MULTIPLE DIMENSIONS OF SUSTAINABILITY ASSESSMENT

LOCATION: ROOM E

CHAIRS: JEAN-FRANCOIS VIOT, SOLVAY, FRANCE
PHILIPP PREISS, EUROPEAN INSTITUTE FOR ENERGY RESEARCH, GERMANY

- 11.00 am Environmental Benefits & Costs of Polyethylene (PE)**
Julie Raynaud², YUKI HAMILTON ONDA KABE¹, Luiz Gustavo Ortega¹, Neil McIndoe²
¹Braskem, Brazil; ²Trucost
- 11.15 am Monetarisisation of environmental impacts in the new 2015 EPS version**
BENGT ANDERS STEEN
Chalmers University of Technology, Sweden
- 11.30 am Eco-efficient recycling and (plastic) waste management based on Cost-Benefit Analyses**
HARALD PILZ
Denkstatt GmbH, Austria
- 11.45 am 130+ Swiss Army Knives that will solve all interpretation problems in impact assessment**
MARK GOEDKOOPT¹, Dorothy Maxwell²
¹PRé Consultants, Netherlands, The; ²Global View Sustainability Services Ltd, United Kingdom
- 12.00 pm Resources & Ecosystem Services: capturing the loss of resources functional value in LCIA**
Manuele Margni¹, Anne-Marie Boulay¹, Vincent de Bruille¹, Viêt Cao¹, Olivier Jolliet², Sormeh Kashef Haghighi¹, CÉCILE BULLE³
¹CIRAIG, Polytechnique Montréal, Canada; ²School of Public Health, University of Michigan, USA; ³CIRAIG, Université du Québec Montréal, Canada
- 12.15 pm Discussion**





Schedule

TUESDAY, SEPTEMBER 1

02.00 pm – 03.30 pm

COFFEE BREAK AND POSTER SESSION

03.30 pm – 04.00 pm

TUESDAY
11.00 am – 12.30 pm

MAKING THE LIFE CYCLE METRICS DEPARTMENT MORE RELEVANT IN LARGE ORGANIZATIONS: FROM THE CELLAR TO THE STAGE

LOCATION: AMPHI A

CHAIRS: MARK GOEDKOOP, PRÉ CONSULTANTS, NETHERLANDS
ALAIN WATHELET, SOLVAY, BELGIUM

- 02.00 pm **Life Cycle Assessment management within the Solvay Group: a testimony**
JEAN-FRANCOIS VIOT¹, Alain Wathelet², Guy-Noël Sauvion³, Françoise Lartigue-Peyrou³
¹Solvay Research and Innovation, Eco-efficiency Evaluation 3E, Research & Innovation Centre, Paris; ²Solvay Research and Innovation, Eco-efficiency Evaluation 3E, Research & Innovation Centre, Bruxelles; ³Solvay Research and Innovation, Eco-efficiency Evaluation 3E, Research & Innovation Centre, Lyon
- 02.15 pm **How to get LCA results out of LCA department in to the board room**
ANNE GAASBEEK, Eric Mieras
PRé Consultants, Netherlands
- 02.30 pm **The Business Value of Life Cycle Approaches – thinkstep and Johnson & Johnson**
Chris Peterson¹, Al Iannuzzi², JAMES FAVA¹
¹Thinkstep, Canada; ²Johnson & Johnson
- 02.45 pm **Managing Sustainability in Innovation Projects**
YUKI HAMILTON ONDA KABE, Luiz Gustavo Ortega, Aline Fernandes da Silva, Giancarlo Santana Roxo
Braskem, Brazil
- 03.00 pm **From LCA projects to life cycle management: The Total M&S's experiment of initiatives to implement the life cycle thinking and life cycle management**
CÉLINE VERRAT, Géraldine Pinol
TOTAL Marketing & Services, France
- 03.15 pm **Discussion**



LCM FOR TRANSPORT AND MOBILITY - I

LOCATION: AMPHI B

CHAIRS: STEPHAN KRINKE, VOLKSWAGEN AG, GERMANY
LUDOVIC DARIOL, AIRBUS DEFENCE AND SPACE, FRANCE

- 02.00 pm **LCA of InCar plus automotive solutions**
JIA-UEI CHAN, Anna Meincke
ThyssenKrupp Steel Europe, Germany
- 02.15 pm **Life Cycle Design and Engineering Lab for Lightweight Concepts**
Christoph Herrmann, Christopher Schmidt, ALEXANDER KALUZA, Sebastian Thiede, Tina Dettmer
Technische Universität Braunschweig, Germany
- 02.30 pm **An example of integration method of social aspect in the life cycle assessment of a product in automotive sector**
MARZIA TRAVERSO, Peter Tarne, Volkmar Wagner, Stefan Brattig, Ferdinand Geckeler
BMW Group, Germany
- 02.45 pm **Expanding the scope of transport emission inventories – from well-to-wheel analyses to a life cycle assessment approach**
KIRSTEN BIEMANN, Frank Dünnebeil, Hinrich Helms, Julius Jöhrens, Claudia Kämper
Institut für Energie- und Umweltforschung Heidelberg GmbH, Germany
- 03.00 pm **Clarity leads to differentiation - a novel approach to create value from LCA**
ERIC W. BISCHOF¹, Bettina M. von Streit²
¹Bayer MaterialScience AG, Germany; ²Bayer Technology Services GmbH, Germany
- 03.15 pm **Discussion**

LCM IN THE ENERGY SECTOR

LOCATION: AMPHI C

CHAIRS: MARC-ANDREE WOLF, MAKI CONSULTING, GERMANY
SARA PALANDER, THE SWEDISH LIFE CYCLE CENTER/CHALMERS UNIVERSITY OF TECHNOLOGY, SWEDEN

- 02.00 pm **Life Cycle Assessment of Electricity Generation: The case of Mauritius**
RAVINA BRIZMOHUN¹, Toolseeram Ramjeawon¹, Adisa Azapagic²
¹University of Mauritius, Mauritius; ²University of Manchester, UK
- 02.15 pm **Environmental impacts from future deep geothermal power plants – a parameterised, prospective LCA-cost model**
KARIN TREYER, Christian Bauer, Warren Schenler
Paul Scherrer Institut, Switzerland
- 02.30 pm **Energy and environmental impacts of energy related products: The case study of a device for reducing natural gas consumption in the production of sanitary hot water**
MAURIZIO CELLURA¹, Francesco Guarino¹, Sonia Longo¹, Giovanni Salemi²
¹University of Palermo, Dipartimento di Energia, Ingegneria dell'Informazione e Modelli Matematici Italy; ²Dipartimento Urbanistica, Assessorato Regionale Territorio e Ambiente, Regione Sicilia, Italy
- 02.45 pm **Environmental due diligence of co2 capture technologies**
ANDERS HAMMER STRØMMAN
NTNU, Norway
- 03.00 pm **Carbon hotspot analysis of hydrogen energy carriers**
YUKI KUDOH, Naomi Kitagawa, Mai Murayama, Kiyotaka Tahara
National Institute of Advanced Industrial Science and Technology, Japan
- 03.15 pm **Discussion**



ORGANIZATIONAL LCA (OLCA) IS THE NEW TOOL FOR LCM

LOCATION: ROOM E

CHAIRS: MATTHIAS FINKBEINER, TU BERLIN, GERMANY
ATSUSHI INABA, KOGAKUIN UNIVERSITY, JAPAN

- 02.00 pm Introduction + the OLCA guide launch
- 02.15 pm Launch and Roadtesting of the Guidance on Organizational LCA by the UNEP/SETAC Life Cycle Initiative
Matthias Finkbeiner¹, JULIA MARTINEZ-BLANCO¹, Llorenç Mila-I-Canals², Ana Quiros³, Atsushi Inaba⁴
¹TU Berlin, Germany; ²UNEP, Paris, France; ³Ecoglobal, Costa Rica; ⁴Kogakuin University, Japan
- 02.30 pm O-LCA study for Sustainable Procurement
KENJI OHASHI
SHISEIDO CO., LTD., Japan
- 02.45 pm Developing a Carbon Footprint inventory for a regional network of municipalities
HOGNE NERSUND LARSEN¹, Christofer Skaar¹, Christian Solli¹, Grete Rasmussen²
¹Asplan Viak AS, Norway; ²Fredrikstad kommune
- 03.00 pm Developing and testing common rules to quantify The Organisation Environmental Footprint in Retail Sector
ROMAIN POIVET¹, Vik Vets², Lea Lim³, Steven Van Hemelryck⁴, Emilie Aubry⁵, Hanna Schreiber, Paolo Masoni⁷, Martin Wildenberg⁸, François-Xavier Morvan⁹, Shela Flechter¹⁰, Sophie Giller¹¹, Arnaud Brulaire¹², Carole Dubois¹³, Sebastien Humbert¹³
¹ADEME, France; ²Carrefour, France; ³Carrefour, Belgique; ⁴Colruyt Group; ⁵Decathlon, France; ⁶Umweltbundesamt, Autriche; ⁷ENEA, Italie; ⁸Global 2000, Autriche; ⁹Kering, France; ¹⁰Office Depot, USA; ¹¹PERIFEM, France; ¹²Picard, France; ¹³Quantis, Suisse
- 03.15 pm Discussion

WBCSD SOCIAL METRICS INITIATIVE

LOCATION: ROOM F

CHAIRS: KITRHONA CERRI, WBCSD, SWITZERLAND
JACOBINE DAS GUPTA - MANNAK, DSM, NETHERLANDS

- 02.00 pm Applying product related sustainability assessment to identify hotspots in the production of key materials for the automotive industry
PETER TARNE¹, Marzia Traverso¹, Volkmar Wagner¹, René Scheumann², Matthias Finkbeiner²
¹BMW Group, Germany; ²Chair of Sustainable Engineering, Technische Universität Berlin, Germany
- 02.15 pm Product Social Impact Assessment of a Run On Flat Tire
Lynn Bell¹, Marzia Traverso², Peter Saling³, David Woodyard¹, JOÃO FONTES⁴
¹The Goodyear Tire & Rubber Company, United States of America; ²BMW Group; ³BASF SE - We create chemistry, Germany; ⁴PRé Consultants, Netherlands
- 02.30 pm Social Metrics for chemical products
Isabelle Spiegel¹, Andrea Brown², KITRHONA CERRI²
¹PwC, France; ²WBCSD, Switzerland
- 02.45 pm Social issues in the automotive sector: Review of existing approaches and the social LCA application scene
LAURA ZANCHI¹, Massimo Delogu¹, Alessandra Zamagni², Marco Pierini¹
¹Department of Industrial Engineering, University of Florence, Italy; ²Ecoinnovazione srl, Spin-off ENEA, Italy
- 03.00 pm Enhancing operational social LCA methods for proper sustainability assessment in LCM
Christopher Zimdars¹, STEPHAN PFISTER¹, Andreas Ciroth²
¹ETH Zurich, Switzerland; ²GreenDelta GmbH, Berlin
- 03.15 pm Discussion



Schedule

TUESDAY, SEPTEMBER 1

04.00 pm – 05.30 pm

CREATING SHARED VALUE AND RESOURCE EFFICIENCY WITH LCM ALONG THE SUPPLY CHAIN

LOCATION: AMPHI A

CHAIRS: MARTINA B. PROX, IFU HAMBURG, HAMBURG INSTITUTE FOR ENVIRONMENTAL IT, GERMANY
MARZIA TRAVERSO, BMW GROUP, GERMANY

- 04.00 pm **The application of Life Cycle Management Capability Maturity Model at Freudenberg Non-Wovens South Africa**
Zubeida Zwavel Tassiem¹; LEE-HENDOR RUITERS²
¹Zwavel Environmental Consulting, South Africa; ²National Cleaner Production Centre of South Africa
- 04.15 pm **Linking the local consumption of nickel to global supply Chain**
KENICHI NAKAJIMA¹, Keisuke Nansai¹, Ichiro Daigo², Shinsuke Murakami², Kazuyo Matsubae³
¹National Institute for Environmental Studies, Japan; ²The University of Tokyo, Japan; ³Tohoku University, Japan
- 04.30 pm **Potential material efficiency improvements via PSS: The case study of a truck manufacturer and one of its component suppliers**
DEREK LYLE DIENER, Anne-Marie Tillman
Chalmers-Environmental Systems Analysis, Sweden
- 04.45 pm **LCM knowhow in collective action and comprehensive metric: A booster for circular economy?**
STÉPHANE MOREL², Rémi Beulque^{1,2}
¹Mines Paristech, France; ²Renault sas, France
- 05.00 pm **Sustainability Assessment of value creation processes in manufacturing – challenges and approaches for the use case of pedelecs**
René Scheumann¹, Sabrina Neugebauer¹, Ya-Ju Chang¹, Kirana Wolf¹, Johannes Seidel², Sebastian Schenker³, Ralf Borndörfer³, Günther Seliger², Matthias Finkbeiner¹, NIKOLAY MINKOV¹
¹Technische Universität Berlin, Chair of Sustainable Enigneering, Germany; ²Technische Universität Berlin, Chair of Assembly Technology and Factory Management, Germany; ³Zuse Institute Berlin, Department Optimization, Germany
- 05.15 pm **“Sustainable Solution Steering”: BASF’s portfolio segmentation methodology to monitor and steer the portfolio based on sustainability needs in the value chain**
Talke Friederike Schaffranek, FLORIAN FEIGS, Andreas Kicherer
BASF SE, Germany



LCM FOR TRANSPORT AND MOBILITY - II

LOCATION: AMPHI B

CHAIRS: STEPHAN KRINKE, VOLKSWAGEN AG, GERMANY
LUDOVIC DARIOL, AIRBUS DEFENCE AND SPACE, FRANCE

- 04.00 pm **Leveraging IMDS to support environmental and risk analysis within the automotive supply chain**
THOMAS FRUEHBUSS¹, Will Martin²
¹Hewlett-Packard GmbH, Germany; ²Granta Design Ltd., UK
- 04.15 pm **How to include noise impacts in car and lorry fleet management with ecological scarcity 2013**
Rolf Frischknecht, Sybille Buesser Knoepfel, LAURA TSCHUEMPERLIN
treeze Ltd., Switzerland
- 04.30 pm **New recycling technologies by Continental to improve the tire life cycle balance sheet**
ANDREAS TOPP, Konstantin Efimov, Shreyas Naik
Continental Reifen Deutschland GmbH, Germany
- 04.45 pm **Geopolitical related supply risk as a new indicator for sustainable supply chain management under the life cycle sustainability assessment framework: The case of electric vehicles**
ESKINDER D. GEMECHU¹, Guido Sonnemann¹, Steven B. Young²
¹CyVi, ISM, University of Bordeaux, France; ²SEED, University of Waterloo, Canada
- 05.00 pm **Spatial distribution of LCA results for the use phase of extended range electric vehicles**
Laura Brethauer¹, Michael Baumann¹, Elvira Ockel², Sarah Homolka², ULRIKE BOS¹
*¹University of Stuttgart, Chair of Building Physics, Dept. Life Cycle Engineering (GaBi), Germany;
²Fraunhofer Institute for Building Physics, Dept. Life Cycle Engineering (GaBi), Germany*
- 05.15 pm **Evaluation of environmental impacts and cost development of future fuel cell drivetrains in passenger cars**
SIMONE I. EHRENBARGER, Enver Doruk Özdemir, Sebastian Gerner, Markus Keller
German Aerospace Centre, Germany

GENERATING DATA: LCA DATABASES AND DATASETS QUALITY, ASSURANCE AND VERIFICATION

LOCATION: AMPHI C

- CHAIRS: ANDREAS CIROTH, GREENDELTA, GERMANY
BRUCE VIGON, SETAC, UNITED STATES OF AMERICA
- 04.00 pm **Developing a Quality Management System for LCA data sets – the case of the LCA-CIRAD platform for tropical products**
YANNICK BIARD^{1,2}, Claudine Basset-Mens^{1,2}, Cécile Bessou^{3,2}, Thierry Tran^{4,2}, Anthony Benoist^{5,2}
¹Cirad - UPR Hortsys - Montpellier - France; ²ELSA - Montpellier - France; ³Cirad - UPR Systèmes de Pérennes - Montpellier - France; ⁴Cirad - UMR Qualisud - Bangkok - Thaïlande; ⁵Cirad - UPR BioWooEB - Montpellier - France
- 04.15 pm **Simplifying data creation and use in large LCI databases**
GREGOR WERNET
Ecoinvent, Switzerland
- 04.30 pm **Transforming ecoinvent for fun and profit**
CHRISTOPHER L MUTEL
Paul Scherrer Institute, Switzerland
- 04.45 pm **Towards a global network of interoperable LCA databases**
LLORENÇ MILÀ I CANALS¹, Anne Claire Asselin-Balencon¹, Simon Liu², Wesley Ingwersen³, Ted Macdonald⁴
¹UNEP, France; ²USDA, Riverdale, Maryland 20737, USA; ³U.S. Environmental Protection Agency, National Risk Management Research Laboratory, Cincinnati, OH, USA; ⁴U.S. Environmental Protection Agency, Office of International Affairs, Washington D.C, 20460, USA
- 05.00 pm **eFootprint / CLCD for LCA study and database development @ internet age**
Ping Hou¹, HONGTAO WANG², Yi Yang¹
¹IKE Environmental Technology, College of Architecture and Environment, Sichuan University, China
- 05.15 pm **Adapting of Life Cycle Inventories of agricultural products to regional contexts: The case of Brazilian soybeans**
CLAUDIA VON FRIHAUF¹, Gil Anderi da Silva¹, Marília Ieda da S. Folegatti Matsuura²
¹University of São Paulo - USP, Brazil; ²Embrapa Environment, Brazil



QUANTIFYING AND COMMUNICATING AVOIDED EMISSIONS: PANEL AND DISCUSSION ON STANDARDIZATION EFFORTS

LOCATION: ROOM E

CHAIRS: STEPHEN RUSSEL, WRI, UNITED STATES OF AMERICA
WILLIAM P FLANAGAN, GENERAL ELECTRIC, UNITED STATES OF AMERICA

04.00 pm **Assessment of Avoided Emissions of ICT Solutions and Organization**
HIROKO IOKA, Seiya Yamazaki, Takafumi Hashitani
Fujitsu Ltd., Japan

04.15 pm **Guideline of estimating the contribution to the avoided emissions of products from life cycle perspective**
ATSUSHI INABA¹, Shoichiro Tsuruta², Maki Ogura³, Masaharu Motoshita⁴
Kogakuin University; ²Japan Environmental Management Association for Industry; ³Pacific Consultants, Co., LTD.; ⁴Natioanal Institute of Advanced Industrial Science and Technology, Japan

04.30 pm **Understanding the context of improvements - from greenwash to planet savers**
JANNICK HOEJRUP SCHMIDT
2.-0 LCA consultants, Denmark

04.45 pm **Addressing the Avoided Emissions Challenge: Guidelines from the Chemical Industry**
ANNEMARIE KERKHOF
Ecofys, Netherlands

05.00 pm **Quantifying avoided emissions - big opportunities and big risks**
GERALD REBITZER
Amcor, Switzerland

05.15 pm **Discussion**

WHAT PROCESS FROM RESEARCH TO PRACTICE?

LOCATION: ROOM F

CHAIRS: URS SCHENKER, NESTLÉ RESEARCH CENTER, SWITZERLAND
SANGWON SUH, UNIVERSITY OF CALIFORNIA, SANTA BARBARA, UNITED STATES OF AMERICA

04.00 pm **Transferring LCA research into industry through customised LCA tools – an example from the Australian sugar industry**
MARGUERITE A RENOUF
University of Queensland, Australia

04.15 pm **Call for action from chemical industry to environmental science**
 ULLA LETINOIS¹, Henk Bosch¹, Isabelle Spiegel², Andrea Brown³
¹DSM, Netherlands; ²PwC, France; ³WBCSD, Switzerland

04.30 pm Addressing thermal pollution in LCA: From an industrial need to an operational tool through a research project
JEAN-BAPTISTE BAYART¹, Justin Boucher², Dominique Corbisier³, Elsa Favrot³, Marcial Vargas¹, Stephan Pfister², Anne Prieur-Vernat³
¹Quantis, France; ²ETH Zurich, Switzerland; ³GDF Suez, France

04.45 pm **Enhancing transferability of a technology by joining efforts between concerned research and industry stakeholders during data collection and inventory building for LCA**
ELISE NAVEAUX
CEA, France

05.00 pm **SEARCH – A converging scientific and stakeholders approach to design the framework for sustainability evaluation of Carbon fibers reinforced polymer recycling industry**
ANNE-LAURE CADENE¹, Leslie Jacquemin¹, Catherine Azzaro-Pantel², Luc Rouge³, Guido Sonnemann⁴
¹Altran Research, France; ²Université de Toulouse, France; ³Toulouse Business School, France; ⁴CyVi, ISM, University of Bordeaux, France

05.15 pm **Discussion**

Posters

TUESDAY, AUGUST 27

08.00 am – 05.30 pm

LOCATION: POSTER AREA,
GROUND FLOOR

TUESDAY
04.00 pm – 05.30 pm

GENERATING DATA : LCA DATABASES AND DATASETS QUALITY, ASSURANCE AND VERIFICATION

CHAIRS: ANDREAS CIROTH, GREENDELTA, GERMANY
BRUCE VIGON, SETAC, UNITED STATES OF AMERICA

- T-224-1 AGRIBALYSE 2, updates and priorities for a high quality LCI database.**
VINCENT COLOMB¹, Hayo van der Werf², Samy Ait-Amar³, Claudine Basset-Mens⁴, Pierre Compere⁵, Julien Fosse⁶, Armelle Gac⁷, Aurelie Tailleux⁸
¹ADEME, SAF, Angers, France; ²INRA, UMR SAS, Rennes, France; ³ACTA, Paris, France;
⁴CIRAD, Hortsys, Montpellier, France; ⁵InVivo AgroSolutions, Paris, France;
⁶Ministère de l'Ecologie, du Développement durable et de l'Energie, Paris, France;
⁷IDELE, Le Rheu, France; ⁸Arvalis-Institut du Végétal, La Chapelle Saint Sauveur, France
- T-253-2 Rare earth elements in magnet production: a reference dataset for life cycle inventory implemented in a full LCA study**
ROSSELLA LUGLIETTI¹, Sergio Terzi¹, Alessandro Pastore², Marco Taisch¹
¹Politecnico di Milano, Italy; ²Camfridge, Cambridge, UK
- T-296-3 Constructive geometries: Making sense of the world and the “rest of the world”**
CHRISTOPHER L MUTEL
PSI, Switzerland
- T-368-4 Spanish life cycle inventory database of urban water cycle processes**
Míriam Planas-Martín¹, Desirée Marín Navarro², Maria José Amores Barrero², Montserrat Termes Rifé³, XAVIER ALDEAL BORRUEL²
¹SOREA, Spain; ²CETAQUA, Spain; ³Universitat de Barcelona, Spain
- T-402-5 A vision from an LCA software developer / LCI data publisher for data quality assurance**
Tommie Ponsioen, MARK GOEDKOOP
PRé Consultants, the Netherlands
- T-529-6 Can a scientist trustfully stand on the shoulders of a LCA giant? Critical review of critical reviews**
OLIVIER TALON
Materia Nova, Belgium



- T-554-7 Prioritizing unit processes to adapt Life Cycle Databases: Brazilian case study**
Giovanna Chiumento, CÁSSIA MARIA LIE UGAYA
Universidade Tecnológica Federal do Paraná, Brazil
- T-653-8 Compiling feed ingredient cost, nutrient and environmental footprint data into a single database**
Jasmina Burek, GREG THOMA, Jennie Popp, Charles Maxwell, Rick Ulrich
University of Arkansas, United States of America
- T-697-9 Online peer review of CLCD-China database**
YI YANG¹, Ping Hou¹, Huanhuan Fan², Hongtao Wang²
¹IKE Environmental Technology, China; ²Sichuan University, China
- T-703-10 UNEP Shonan Guidance Principles criteria to improve interoperability of LCI databases presented and applied**
ANDREAS CIROTH¹, Bruce Vigon², Guido Sonnemann³
¹GreenDelta; ²SETAC; ³Bordeaux University

MAKING THE LIFE CYCLE METRICS DEPARTEMENT MORE RELEVANT IN LARGE ORGANIZATIONS : FROM THE CELLAR TO THE STAGE

CHAIRS: MARK GOEDKOOP, PRÉ CONSULTANTS, NETHERLANDS
ALAIN WATHELET, SOLVAY, BELGIUM

- T-162-11 An LCA-based framework for measuring sustainable value creation**
ERIC MIERAS
PRé Consultants, Netherlands, The
- T-231-12 Life cycle approaches in Latin American organizations – an approach to identify frontrunners**
PIA WICHE¹, Sonia Valdivia², Llorenc Mila i Canals³
¹Wiche Sustentabilidad, Chile; ²World Resources Forum, Switzerland; ³Sustainable Consumption and Production, Division for Technology, Industry and Economics, United Nations Environment Programme (UNEP), France.
- T-287-13 Including Stakeholder Value Judgment into LCM**
YUKI HAMILTON ONDA KABE¹, Felipe Lion Motta², Luiz Gustavo Ortega¹
¹Braskem, Brazil; ²ACV Brasil
- T-360-14 LCP, a method to better integrate marketing departements in sustainability**
DIMITRI CAUDRELIER¹, Ganael Bascoul²
¹Quantis, France; ²Soon Soon Soon
- T-453-15 Organizational challenges and solutions for practical implementation of life cycle improvements**
EMMA REX¹, Birgit Brunklaus², Sara Palander³, Amir Rashid⁴, Tomas Rydberg⁵
¹SP Technical Research Institute of Sweden, Sweden; ²Chalmers University of Technology, Sweden; ³Swedish Life Cycle Center, Sweden; ⁴KTH Royal Institute of Technology, Sweden; ⁵IVL Swedish Environmental Research Institute, Sweden
- T-571-16 Evaluating products and product waste in the LCM of food and beverage manufacture**
TIMOTHY GRANT¹, Leanne Fitzpatrick²
¹Life Cycle Strategies, Australia; ²Sustainable Packaging Alliance



T-699-17 **Introducing life cycle thinking in the product development process - a case from a wind turbine manufacturer**
ALEXANDRA BONOU¹, Kristen Skelton²
¹Technical University of Denmark, Denmark; ²Aalborg University

CREATING SHARED VALUE AND RESOURCE EFFICIENCY WITH LCM ALONG THE SUPPLY CHAIN
CHAIRS: MARTINA B. PROX, IFU HAMBURG HAMBURG INSTITUTE FOR ENVIRONMENTAL IT, GERMANY
MARZIA TRAVERSO, BMW GROUP, GERMANY

T-264-18 **Lean and green management along the food life cycle**
Birgit, Maria Brunklaus¹, JOHANNA BERLIN²
¹Chalmers University of Technology, Sweden; ²SP Technical Research Institute of Sweden, Section for Systems Analysis

T-403-19 **Business value creation in the postal service sector: a practical case of successful LCM**
ELISABET AMAT¹, Ignasi Ballus¹, Marta Albet¹, Miki Rubio¹, Santiago MUÑOZ²
¹LAVOLA 1981 SA, Spain; ²CORREOS

T-441-20 **Eco-efficiency analysis of the reverse logistics of empty pesticide containers: a case study of Campo Limpo System in Brazil**
Guilherme Raucci¹, Daniel Falchetti¹, Fabio Cirilo¹, Sueli Oliveira¹, RENATA NISHIO²
¹Fundação Espaço ECO® (FEE®); ²National Institute for Processing Empty Containers (inpEV)

T-476-21 **Practical methods of creating tangible value generating opportunities through Life Cycle Assessment: A case study with the manganese alloy industry**
Mohammed Ali¹, Luke Westfall¹, JULIA DAVOURIE¹, Doreen Mc Gough²
¹Hatch Ltd., Canada; ²International Manganese Institute, France

T-477-22 **How LCM can contribute in delivering value to customers: the issue of functionality**
WOUTER DE SOETE, Steven De Meester, Jo Dewulf
Department of Sustainable Organic Chemistry and Technology, Ghent University, Belgium



T-499-23 Sustainability of cascaded use of lithium-ion batteries for mobile and stationary energy storage systems
STEVEN B YOUNG¹, Michael Fowler², Roydon Fraser³, Sean B Walker², Leila Ahmadi³, Ben Gaffney³, Catherine Heymans², Daniel Van Lanen²
¹SEED, University of Waterloo, Canada; ²Mechanical and Mechatronics Engineering, University of Waterloo, Canada; ³Chemical Engineering, University of Waterloo, Canada

T-563-24 Mapping benefits of LCM
MYRIAM PUAUT¹, Helene Teulon²
¹ADEME, France; ²GINGKO 21, France

WHAT PROCESS FROM RESEARCH TO PRACTICE?

CHAIRS: URS SCHENKER, NESTLÉ RESEARCH CENTER, SWITZERLAND
 SANGWON SUH, UNIVERSITY OF CALIFORNIA, SANTA BARBARA, UNITED STATES OF AMERICA

T-158-25 Use of SimaPro reporting tool for screening formulations during material development
FRANCINE AMON, Christoffer Krewer
 SP Technical Research Institute of Sweden, Sweden

T-178-26 Life Cycle Management applied to the development of novel superconductors tapes
Carme Hidalgo, Marta Escamilla, LAIA PUIGMAL
 Leitat Technological Center, Spain

T-206-27 Study on LCA and Environmental Consciousness in Japanese Consumer
Tetsuo Nishi
 Intage Research Inc., Japan

T-331-28 Life Cycle Management to guide the development of advanced electrochemical and chemical wastewater treatment
GERTRI FERRER¹, Anna Serra¹, Marta Escamilla¹, Hans-Jürgen Förster²
¹LEITAT TECHNOLOGICAL CENTER, Spain; ²Eilenburger Elektrolyse- und Umwelttechnik GmbH, Germany

T-347-29 The « Bilan H2O »: an example of LCA application at the scale of an activity or a territory.
LAURENT DUMERGUES, Valentin AUFFRET, Cyril BALDACCHINO, Benoît DE GUILLEBON
 APESA, France

T-427-30 Life cycle assessment as a decision-support tool to set up an industrial phytoremediation process
Claire Vialle^{1,2}, Lise Tanfin^{1,2}, Marion Alignan^{1,2}, Jérôme Silvestre³, Laurent Thannberger⁴, CAROLINE SABLAYROLLES^{1,2}
¹Université de Toulouse, France; ²INRA, Toulouse, France; ³Université de Toulouse, France; ⁴VALGO, Portet-sur-Garonne, France



- T-518-31 **Is measuring impacts good enough? Or do we need to give context?**
MARK GOEDKOOOP, Eric Mieras
PRé Consultants, Netherlands, The
- T-607-32 **Practical application of life cycle assessment for the design of lab-scale preparation of carbon foams from Kraft black liquor**
AMANDINE FOULET^{1,2,3}, Marc Birot^{2,3}, Hervé Deleuze^{2,3}, Guido Sonnemann^{1,3}
¹CyVi, ISM; ²C2M, ISM; ³University of Bordeaux
- T-706-33 **Proposal for the integration of life cycle engineering and management practices with the phases of cleaner production**
MARIANA GUARDIA, Aldo Roberto Ometto
UNIVERSITY OF SAO PAULO, Brazil

FROM PROJECTS TO PROCESS TO IMPLEMENT LCM IN BUSINESS

- CHAIRS: MARTIN BAITZ, THINKSTEP, GERMANY
ELMAR ROTHER, EVONIK INDUSTRIES AG, GERMANY
- T-767-34 **How to ease mainstreaming LCM in the design process ?**
THÉRET, JEAN-PIERRE
- T-121-35 **Shrinking footprint: a result of design influenced by Life Cycle Assessment**
CONNIE DANIEL HENSLER
Interface, Inc., United States of America
- T-511-36 **Sustainability Assessment of Packaging Materials in Apparel Industry Using the LCA Approach**
RAJESH KUMAR SINGH
PE International, India
- T-642-37 **Guidelines for business strategy implementation through Balanced Scorecard: a Life Cycle Management approach for value creation**
Diego Rodrigues Iritani, Fabio Neves Puglieri, DIOGO SILVA, Luiz Cesar Ribeiro Carpinetti, Aldo Roberto Ometto
University of Sao Paulo, Brazil
- T-662-38 **From pilot projects to maintreaming ecodesign at umicore building products**
CÉCILE ROLAND¹, Helene Teulon²
¹Umicore Buidling Products, France; ²Gingko 21, France



LCM IN THE ELECTRICITY AND ENERGY SECTOR

CHAIRS: BEN AMOR, UNIVERSITÉ DE SHERBROOKE, CANADA
ANNE PRIEUR-VERNAT, GDF SUEZ, FRANCE

T-133-39 Introducing pig slurry in full-scale biogas plants to reduce environmental footprint
Lucía Lijó¹, Sara González-García¹, Jacopo Bacenetti², Marco Fiala², Gumersindo Feijoo¹, MARÍA TERESA MOREIRA¹

¹Department of Chemical Engineering, Institute of Technology, University of Santiago de Compostela, Spain; ²Department of Agricultural and Environmental Sciences, Production, Landscape, Agroenergy, Univeristy of Milan, Italy.

T-142-40 Potential reduction of environmental impacts of ethanol production by the adoption of the environmental protocol of the sugar-energy sector
Juliana F. Picoli¹, Leticia De Santi Barrantes², Ricardo T. Gomes¹, Keryman R. da Costa¹, Marília Ieda da Silveira Folegatti Matsuura³, Nilza Patrícia Ramos³, CLAUDIA VON FRIHAUF⁴

¹Universidade Estadual de Campinas, Brazil; ²Universidade Tecnológica Federal do Paraná, Brazil; ³Embrapa, Brazil; ⁴University of São Paulo - USP, Brazil

T-283-41 Life Cycle Analysis of intermittent electricity generation
Evelyne Laurent¹, Didier Colin², Guillaume Jouanne¹, STÉPHANE LE POCHAT¹, Audrey Lahitte²

¹EVEA, Lyon, France; ²ERDF, REIMS, France

T-319-42 Integrating LCI data and energy system modelling
Kathrin Andrea Volkart, CHRISTOPHER LUCIEN MUTEL

Paul Scherrer Institut, Switzerland

T-332-43 Developments of the Bavarian heating mix - Environmental impacts of an increasing use of energy wood

CHRISTIAN WOLF¹, Daniel Klein², Gabriele Weber-Blaschke¹, Klaus Richter¹

¹Technische Universität München, Germany; ²Bavarian State Institute of Forestry

T-337-44 Multifunctionality issue regarding the LCA of bioenergy plants
Antoine Esnouf^{1,2}, LYNDA AISSANI³, Faustine Laurent⁴, Claire Déchaux³

¹INRA, France; ²ELSA, France; ³Irstea, France; ⁴Akajoule, France

T-340-45 Key drivers of a common dynamic vision of electricity production mix using IPCC 2007 GWP indicator

ANNE-SOPHIE HERBERT^{1,2}, Catherine Azzaro-Pantel¹, Denis Le Boulch²

¹Université de Toulouse, Laboratoire de Génie Chimique, France; ²EDF R&D, France

T-377-46 Challenges in LCA of Integrated Energy System

Xiaojin Zhang, CHRISTOPHER L MUTEL, Christian Bauer

Paul Scherrer Institute, Switzerland

T-457-47 Electricity production, how to optimise its production in an environmental point of view? Case of Belgium

SANDRA BELBOOM, Angélique Léonard

University of Liège, Belgium

T-493-48 Is the Chinese production of photovoltaic cells a barrier to reducing the impacts of the energy production?

Marcos Pedro Licinio^{1,2}, SEBASTIÃO ROBERTO SOARES^{1,2}

¹UFSC Federal University of Santa Catarina, Brazil; ²CICLOG Research Group on Life Cycle Assessment

T-521-49 LCM in the energy and electricity sector

THOMAS DANDRES¹, Elsa Maurice¹, Kim Khoa Nguyen², Yves Lemieux³, Mohamed Cheriet², Réjean Samson¹

¹CIRAIG - Polytechnique Montreal, Canada; ²Synchromedia - École de technologie supérieure; ³Ericsson Canada Inc.

T-555-50 Overall raw material savings potential in German electricity production through the substitution of fossil fuels by renewable sources

TORSTEN HUMMEN, Christian Sartorius

Fraunhofer Institute for Systems and Innovation Research ISI, Germany



T-589-51 Life Cycle Sustainability Assessment of electricity from Straight Jatropha Oil. Ecuadorian case
Marilyn Alexandra Muñoz Mayorga¹, ISRAEL HERRERA OROZCO², Yolanda Lechón Pérez², Eva Iglesias Martínez¹

¹Departamento de Economía y Ciencias Sociales Agrarias. Universidad Politécnica de Madrid;

²Unidad de Análisis de Sistemas Energéticos. Departamento de energía. CIEMAT, Spain

T-614-52 Integrated economic and environmental assessment of heat production from wood stoves in Norway
TUVA GRYTLI¹, Geoffrey Guest¹, Carine Lausset¹, Francesco Cherubini¹, Ryan Bright¹, Anders Hammer Strømman¹, Per Kristian Rørstad², Helmer Belbo³, Rasmus Astrup³, Øyvind Skreiberg⁴, Morten Seljeskog⁴, Franziska Goile⁴

¹Norwegian University of Science and Technology (NTNU), Norway; ²Norwegian University of Life Sciences (NMBU), Norway; ³Norwegian Forest and Landscape Institute, Norway; ⁴SINTEF, Norway

T-712-53 A model for sustainable generation expansion planning with disruption risk
AMIR AHMADI JAVID, Amir Hossein Seddighi
Amirkabir University of Technology, Tehran, Iran, Islamic Republic of

T-751-54 Cradle-to-grave LCA of Organic Photovoltaics
MICHAEL TSANG^{1,2}, Dario Bassani^{1,2}, Guido Sonnemann^{1,2}
¹Univ. Bordeaux, ISM, France; ²CNRS, ISM, France

LCM FOR TRANSPORT AND MOBILITY 1&2

CHAIRS: STEPHAN KRINKE, VOLKSWAGEN AG, GERMANY
DARIOL LUDOVIC, AIRBUS DEFENCE AND SPACE, FRANCE

T-154-55 Life Cycle Assessment approach in design of Airborne Inductive Electrical Equipment
JACQUES RICHARD¹, Marc Haraz², Mathieu Charlas³
¹HES-SO/hepia, Switzerland; ²HES-SO/master, Switzerland; ³LABINAL POWER SYSTEMS, France

T-271-56 Environmental impact assesment of rail freight intermodality
ANGEL LUIS MERCHAN
University of Liege, Belgium

T-272-57 Managing the life cycle of production equipment: What does it matter?
TEUNIS J. DIJKMAN, Jan-Markus Rödger, Niki Bey
Technical University of Denmark, Denmark

T-350-58 Life cycle assessment of transportation fuels based on lignocellulosic biomass – Comparison of selected fast pyrolysis conversion technologies
LISA THORMANN, Benedikt Buchspies, Martin Kaltschmitt
Hamburg University of Technology (TUHH), Germany

T-366-59 Life Cycle Assessment of Electric vehicles - the size and range effect
LINDA AGER-WICK ELLINGSEN, Anders Hammer Strømman, Bhawna Singh, Guillaume Majeau-Bettez
Norwegian University of Science and Technology (NTNU), Norway

T-380-60 Life Cycle Assessment in Magneti Marelli
RUBINA RICCOMAGNO
Magneti Marelli Spa, Italy



- T-415-61 **LCM of large product systems: The case of the global passenger vehicle fleet**
STEFAN PAULIUK, Roja Modaresi, Amund Løvik, Edgar Hertwich, Daniel Beat Müller
Norwegian University of Science and Technology (NTNU), Norway
- T-624-62 **Model to implement a carbon footprint of a methane lorry starting from diesel lorry datasets**
ANDREA FEDELE, Anna Mazzi, Sara Toniolo, Chiara Pieretto, Antonio Scipioni
University of Padova, Italy
- T-632-63 **Evaluation of airport sustainability – The necessity of environmental, economic and social considerations**
Sebastien Garnier¹, Mickael Tomatis², Leslie Jacquemin¹, ALAN JEAN MARIE¹
¹Altran Research, FRANCE; ²Altran, France.
- T-715-64 **Sustainable Resource Management for Lithium-Ion Batteries out of Electric Vehicles**
Nirugaa Natkunarajah¹, ALEXANDRA PEHLKEN²
¹University of Siegen, Germany; ²University of Oldenburg, Germany

MONETARIZATION : EFFECTIVEAPPROACHES TO COMBINE MULTIPLE DIMENSIONS OF SUSTAINABILITY ASSESSMENT

- CHAIRS: JEAN-FRANCOIS VIOT, SOLVAY, FRANCE
PHILIPP PREISS, EUROPEAN INSTITUTE FOR ENERGY RESEARCH, GERMANY
- T-171-65 **External costs of electrification of road transport: approach and setting-dependency**
PHILIPP PREISS, Till Bachmann
European Institute for Energy Research, Germany
- T-538-66 **Optimization of urban rainwater harvesting in northwestern Mexico from a life cycle costing perspective.**
M. Violeta Vargas-Parra, M.Rosa Rovira-Val, Xavier Gabarrell, Gara Villalba, JOAN RIERADEVALL
RIERADEVALL
Universitat Autònoma de Barcelona, Spain



INTEGRATING SOCIAL ASPECTS IN LCM

CHAIRS: MARK GOEDKOOP, PRÉ CONSULTANTS, NETHERLANDS
ALAIN WATHELET, SOLVAY, BELGIUM

- T-208-67 **Life-cycle sustainability assessment for agricultural holdings: Integrating environmental, economic and social aspects**
Andreas Roesch, THOMAS NEMECEK, Gérard Gaillard
Agroscope, Switzerland
- T-275-68 **A conceptual framework for the analysis of social impact through SLCA application: the case of the University system**
GABRIELLA ARCESE¹, Maria Claudia Lucchetti¹, Ilaria Massa²
¹Roma Tre University, Italy; ²Sapienza University of Rome, Italy
- T-311-69 **Mining risk footprints of critical metals; integration of political risks for mining countries and material footprints**
KEISUKE NANSAI¹, Kenichi Nakajima¹, Shigemi Kagawa², Yasuhi Kondo³, Sangwon Suh⁴
¹National Institute for Environmental Studies, Japan; ²Kyushu University; ³Waseda University; ⁴University of California, Santa Barbara
- T-335-70 **Screening potential social impacts of textile and clothing products**
BAHAREH ZAMANI¹, Gustav Sandin², Gregory Peters¹
¹Chalmers University of Technology, Sweden; ²bSP Technical Research Institute of Sweden
- T-343-71 **Social Life Cycle Assessment of Cereal Industry in Wallonia**
ALICE DELCOUR, Florence Van Stappen, Didier Stilmant, Philippe Burny, Jean-Pierre Goffart
CRA-W, Belgium
- T-420-72 **Labour and social footprints for life cycle management**
MOANA SIMAS, Richard Wood, Edgar Hertwich
Norwegian University of Science and Technology, Norway
- T-439-73 **An innovative approach in life cycle approach of products - integration of social issues through a global health footprint of products**
JASHA OOSTERBAAN
MINES ParisTech, PSL Research University, France

- T-484-74 **Social performance indicators for multiproduct agricultural systems**
MARCELA PORTO COSTA^{1,2}, Rafael Selvaggio Vinas¹, Sueli Aparecida de Oliveira¹, Gerson Araújo Medeiros²
¹Fundação Espaço ECO - BASF, Brazil; ²UNESP - Universidade Estadual Paulista Julio de Mesquita Filho
- T-519-75 **Sustainable 2nd generation biorefineries - Integrating social aspects in the BioREFINE2G project**
Martin Otto Paul Ramacher, MICHAEL BRUNS, Andreas Genest, Klara Bohr
ifu Hamburg GmbH, Germany



ORGANIZATIONAL LCA (OLCA) IS NEW TOOL FOR LCM

CHAIRS: MATTHIAS FINKBEINER, TU BERLIN, GERMANY
ATSUSHI INABA, KOGAKUIN UNIVERSITY, JAPON

- T-216-76 **Integrated Application of Education for Sustainability and LCA for Ecoefficiency Management in paint production plant of BASF Brazil.**
MAX WILSON SILVA, Fabio Cirilo
Fundação Espaço ECO, Brazil
- T-308-77 **Mesuring and managing total impact: a new language for business decision**
Isabelle Spiegel, Olivier Muller, CHRISTOPHE DREVELLE
PwC, France
- T-321-78 **SCOPE3 of Kogakuin University Focusing on Activities of Students**
NATSUMI INOUE¹, Atshshi Ichinomiya¹, Atsushi Inaba¹, Koji Tanaka²
¹Kogakuin university, Japan; ²e.s.feed, japan
- T-359-79 **A compass to guide you through the framework labyrinth of Organisation Footprint**
LAURENCE HAMON¹, Lori Gustavus¹, Carole Dubois², Jon Dettling³, Sebastien Humbert²
¹Quantis, France; ²Quantis, Switzerland; ³Quantis, US
- T-422-80 **Findings in feasibility studies of Organizational LCA by Japanese industry**
ATSUSHI INABA¹, Masaharu Motoshita²
¹Kogakuin University; ²Natioanal Institute of Advanced Industrial Science and Technology, Japan
- T-444-81 **Optimizing Sustainable Supply Chain Management Across the Procurement Portfolio**
Rylie E.O. Pelton, Mo Li, TIMOTHY M. SMITH
Institute on the Environment, University of Minnesota, United States of America

LCM AND HUMAN TOXICITY

CHAIRS: RALPH ROSENBAUM, IRSTEA, FRANCE
QUENTIN DE HULTS, BASF, BELGIQUE

- T-392-82 **Difference and complementary of LCA and Risk Assesment approaches**
GUY CASTELAN
PlasticsEurope, France
- T-548-83 **Introducing the odour footprint – a new midpoint indicator**
GREG M PETERS¹, Kathleen R Murphy¹, Anders PS Adamsen², Sander Bruun³, Magdalena Svanström¹, Marieke ten Hoeve³
¹Chalmers University of Technology, Sweden; ²Aarhus University, Denmark; ³University of Copenhagen, Denmark



QUANTIFYING AND COMMUNICATING AVOIDED EMISSIONS : PANEL AND DISCUSSION ON STANDARDIZATION EFFORTS

CHAIRS: CYNTHIA EDEN CUMMIS, WRI, UNITED STATES OF AMERICA
WILLIAM P FLANAGAN, GENERAL ELECTRIC, UNITED STATES OF AMERICA

- T-262-84

Developing and testing a methodology for quantifying avoided GreenHouse Gases emissions resulting from a reduction action

ROMAIN POIVET, Fanny FLEURIOT

ADEME, France
- T-406-85

What should be considered in the estimation of avoided emissions?

MASAHARU MOTOSHITA¹, Ichiro Daigo², Shoichiro Tsuruta³, Atsushi Inaba⁴

¹Natioanal Institute of Advanced Industrial Science and Technology, Japan; ²The University of Tokyo; ³Japan Environmental Management Association for Industry; ⁴Kogakuin University



Schedule

WEDNESDAY, SEPTEMBER 2

09.00 am – 10.30 am

COFFEE BREAK AND POSTER SESSION

10.30 am – 11.00 am

LCM FOR BUILDINGS: MATERIALS AND DESIGN

LOCATION: AMPHI A

CHAIRS: JOAN RIERADEVALL, UNIVERSITAT AUTÓNOMA DE BARCELONA, SPAIN
ROCÍO FERNÁNDEZ FLORES, ACCIONA INFRAESTRUCTURAS, SPAIN

09.00 am **Environmental impact considerations of building materials under different methodological approaches**
CHRISTIAN SOLLI, Anne Sigrid Nordby, Mie Fuglseth, Oddbjørn Dahlstrøm, Christofer Skaar
Asplan Viak AS, Norway

09.15 am **Low-carbon buildings: How representative are LCA results at early design stages?**
DIEGO PEÑALOZA¹, Nadia Al-Ayish²
¹Technical Research Institute of Sweden, Sweden; ²Swedish Cement and Concrete Research Institute, Sweden

09.30 am **Life cycle assessment of urban housing stocks: Development of a GIS-based framework**
ALESSIO MASTRUCCI, Antonino Marvuglia, Enrico Benetto, Ulrich Leopold
Luxembourg Institute of Science and Technology, Luxembourg

09.45 am **Modeling LCA of urban water systems: Public infrastructure management in link with water resource availability**
PHILIPPE LOUBET¹, Philippe Roux²
¹CyVi, ISM, Bordeaux INP, France; ²UMR ITAP, pôle ELSA, Irstea Montpellier, France

10.00 am **Are passive houses really efficient across the whole Life Cycle? Case study of environmental impacts induced by the choice of building materials in energetically efficient buildings**
FREDERIC BOURY¹, Marie Darul²
¹Symoé, France; ²cd2e, France

10.15 am **Discussion**



FOSTERING THE IMPLEMENTATION OF LCA IN THE FOOD AND BEVERAGE SECTOR

LOCATION: AMPHI B

CHAIRS: SEBASTIEN HUMBERT, QUANTIS, SWITZERLAND
YING WANG, INNOVATION CENTER FOR U.S. DAIRY, UNITED STATES OF AMERICA

- 09.00 am **Chemistry meets Nutrition – Amino Acids as advanced technology to improve sustainability of livestock production**
MICHAEL BINDER, Viktoria Scherer, Ranjan Fletcher, Thomas Kaufmann
Evonik Industries AG, Germany
- 09.15 am **Life-cycle assessment on a starch facility in South Africa**
KEVIN G. HARDING, Mpho Macingwane
Industrial and Mining Water Research Unit (IMWaRU), School of Chemical and Metallurgical Engineering, University of the Witwatersrand, Johannesburg, South Africa
- 09.30 am **Life Cycle Magagement and the U.S. dairy sustainability commitment: Assessing, measuring, mitigating, and communicating the industry's environmental impact**
YING WANG
Innovation Center for U.S. Dairy, United States of America
- 09.45 am **Strengths and limitations of LCA in agricultural products eco-conception: Analysis of an agro-ecological strategy in vine-growing**
GILDAS MEVEL¹, Pierre Compere¹, Philippe Lorenzati²
¹InVivo AgroSolutions, France; ²Qualisol, France
- 10.00 am **Addressing the complexity in LCM of food systems – an integrated approach**
ULF GUNNAR SONESSON, Katarina Lorentzon
SP Technical Research Institute of Sweden, Sweden
- 10.15 am **Discussion**

MAINSTREAMING LCM IN PUBLIC POLICY - II

LOCATION: AMPHI C

CHAIRS: CLARE BROADBENT, WORLD STEEL ASSOCIATION, BELGIUM
MICHELE GALATOLA, EUROPEAN COMMISSION

- 09.00 am **Western Cape Regional Resource Flow Model: Environmentally Extended Input Output Analysis to Inform Public Policy**
PIETER FREDERIK JANSE VAN VUUREN¹, Catherine B Pineo¹, Lauren Basson¹, Jim Petrie², Chris Millson¹
¹GreenCape, Cape Town, South Africa; ²Department of Economic Development and Tourism, Western Cape Government, Cape Town, South Africa
- 09.15 am **Promising options for integrating LCA in policy**
Annekatriin Lehmann¹, MATTHIAS FINKBEINER¹, Clare Broadbent², Russ T. Balzer³
¹Technische Universität Berlin, Germany; ²World Steel Association, Belgium; ³WorldAutoSteel, USA
- 09.30 am **Road to zero: Myth or reality?**
HELENE TEULON, Gentiane Gastaldi
GINGKO 21, France
- 09.45 am **From Cleaner Production To Life Cycle Management In Chile**
Cristián Emhart¹, Alejandro Florenzano¹, Nicolás Westenenk², Sebastián Carvallo², ANDRÉS ROLÓN¹
¹Fundacion Chile, Chile; ²Consejo Nacional de Producción Limpia, Chile;
- 10.00 am **LCA in agricultural policy making: Comparing domestic and imported food**
THOMAS JAN NEMECEK, Maria Bystricky, Martina Alig, Gérard Gaillard
Agroscope, Switzerland
- 10.15 am **Discussion**



PRACTICES FOR HOTSPOTS ANALYSIS AND PRODUCT SUSTAINABILITY

LOCATION: ROOM E

CHAIRS: JAMES FAVA, THINKSTEP, UNITED STATES OF AMERICA
MARK ANDREW BARTHEL, WRAP, UNITED KINGDOM

- 09.00 am **Introduction to Hotspot Analysis & learnings from UNEP/SETAC Life Cycle Initiative’s Mapping of Hotspot Analysis methodologies**
James Fava, Mark Barthel (Session chairs)
- 09.15 am **The use of life cycle approaches in industry – Experiences, best practices and open questions from various sectors**
Florian Ansgar Jaeger¹, Lea Maria Kemper², Martin Kirchner³, Stephan Krinke⁴, NIKOLAJ OTTE⁵, Peter Saling⁶, Urs Schenker⁷, Daniel Schleifer⁸, Diederik Schowanek⁹, Bettina M. von Streit¹⁰
¹Siemens AG; ²Beiersdorf AG; ³Evonik Industries AG; ⁴Volkswagen AG; ⁵Henkel AG & Co. KGaA; ⁶BASF SE; ⁷Nestlé Research Center; ⁸ThyssenKrupp AG; ⁹Procter & Gamble; ¹⁰Bayer Technology Services GmbH
- 9.30 am **Session chairs will facilitate the solicitation of input from the audience on questions raised by the speakers and their own questions from their work of Mapping of Hotspot Analysis Approaches in collaboration with UNEP**

HOW COLLABORATIVE RESEARCH ON LIFE CYCLE MAY IMPROVE LCA PRACTICES FOR BUSI-
NESSES: SCORELCA FEEDBACK

LOCATION: ROOM F

CHAIRS: PHILIPPE OSSET, SCORELCA, FRANCE
JADE GARCIA, SCORELCA, FRANCE

- 09.00 am **How to integrate the spatial dimension in LCA**
CECILE QUERLEU¹, Laure Patouillard^{1,2}, Cecile Bulle², Dominique Maxime², Valerie Patreau², Jade Garcia³, Cecile Beaudard³
¹IFP Energies nouvelles, France; ²CIRAIG, Canada; ³SCORELCA, France
- 09.15 am **Initial specification of data quality in LCA**
Isabelle Descos¹, BERNARD DE CAEVEL¹, Marc Andree Wolf², Cécile Beaudard³, Jade Garcia³
¹RDC Environment, Belgium; ²Maki Consulting, Germany; ³SCORE LCA, France
- 09.30 am **Circular economy: Concepts and evaluation methods**
Benoît Verzat², EMMANUELLE Aoustin³ Charlotte Thevenet⁴, Marcial Vargas Gonzales³, Ariane Bussard⁴, Guillaume Masard⁴, Cécile Beaudard¹, Jade Garcia¹
¹SCORELCA, France; ²QUANTIS Lyon, France; ³QUANTIS Paris, France; ⁴SOFIES SAS, FRANCE
- 09.45 am **Coupling GIS and LCA. What are the possible outcomes for companies?**
Florent Fabien Querini¹, ELORRI IGOS¹, Alessio Mastrucci¹, Enrico Benetto¹, Cécile Beaudard², Jade Garcia²
¹Luxembourg Institute of Science & Technology (LIST), Luxembourg; ²SCORELCA, France
- 10.00 am **Discussion**



Schedule

WEDNESDAY, SEPTEMBER 2

11.00 am – 12.30 pm

LUNCH AND POSTER SESSION || THEMATIC LUNCH SESSION BY QUANTIS

12.30 pm – 02.00 pm

DEALING WITH FOOD WASTE IN LCA AND LCM

LOCATION: AMPHI A

CHAIRS: STEVEN B YOUNG, UNIVERSITY OF WATERLOO, CANADA
MARTIN BAITZ, THINKSTEP, GERMANY

- 11.00 am **ONE TWO WE – Life cycle management in canteens together with suppliers, customers and guests**
NIELS JUNGBLUTH, Regula Keller
ESU-services Ltd., Switzerland
- 11.15 am **Quantification of environmental impacts (carbon footprint, water footprint and land use) of lost and wasted food at global level**
Olivier Jan, CLÉMENT TOSTIVINT, Perrine Lavelle
Deloitte, France
- 11.30 am **LCM for Food and Beverages**
Daesoo Kim¹, GREG THOMA¹, Shalene McNeill²
¹University of Arkansas, United States of America; ²National Cattlemen's Beef Association, United States of America
- 11.45 am **Evaluating food waste prevention strategies by means of Input-Output LCA**
Massimo Pizzol, Manuel Campos, Paulo Silva, JANNICK SCHMIDT
Aalborg University, Denmark
- 12.00 am **Food wastage prevention: What are we really avoiding? – an LCA-based approach**
ALBA CÁNOVAS CREUS, Anna Bernstad, Rogerio Valle
SAGE/COPPE/UFRJ, Brazil
- 12.15 am **Discussion**



FROM BUILDING DESIGN TO DISTRICT EVALUATION WITH LCM

LOCATION: AMPHI B

CHAIRS: HELENE TEULON, GINGKO 21, FRANCE
NICOLAS SALMON, NOBATEK, FRANCE

- 11.00 am Application of life cycle assessment in urban projects**
Bruno Peuportier, CHARLOTTE ROUX
ARMINES, France
- 11.15 am More Value, Less Impact: Sustainable Value Creation in Construction Industry**
CLARA FIÚZA, Catalina Estevez, Mark Schneider
Sika Services AG, Switzerland
- 11.30 am Lessons learned from establishing an environmental benchmark for residential buildings**
Rolf Frischknecht¹, Franziska Wyss¹, Katrin Pfaeffli², Viola John³, LAURA TSCHUEMPERLIN¹
¹treeze Ltd., Switzerland; ²Preisig Pfäffli Architekten, Switzerland; ³ETH Zurich, Chair of Sustainable Construction, Switzerland
- 11.45 am Environmental and social evaluation of the new district of Txomin Enea (San Sebastian) and investigation of optimisation scenarios**
Xabat Oregi Isasi¹, Lara Mabe Gomez¹, MAXIME POUSSE², Marc Lotteau², Jon Gastañares Lizarriturri³
¹Tecnalia Research & Innovation, Spain; ²NOBATEK, France; ³San Sebastian City Council, Spain
- 12.00 pm The Norpac life cycle management approach: Step by step assessment of different design building stages by LC Manager**
Romain Charriere, LAURE DUCOULOMBIER
Norpac, France
- 12.15 pm Discussion**

LCM AND THE END OF LIFE OF PRODUCTS AND MATERIALS - I

LOCATION: AMPHI C

CHAIRS: ALLAN ASTRUP JENSEN, NIPSECT, DENMARK
GERALD REBITZER, AMCOR, SWITZERLAND

- 11.00 am Obstacles and opportunities to mainstream Life Cycle Management of End of Life sector throughout supply chains: Lessons learnt in Northern France**
Marc Haquette¹, NAEEM ADIBI², Vanessa Pasquet²
¹cd2e, France; ²[avniR] by cd2e, France
- 11.15 am Integration of Life Cycle Assessment and Multi-Criteria Analysis for improved policy guidance in organic waste management**
ANA CAROLINA ANGELO¹, Anna Bernstad², João Carlos Clímaco³, Rogerio Valle⁴
¹COPPE UFRJ, Brazil; ²COPPE UFRJ, Brazil; ³University of Coimbra, Portugal; ⁴COPPE UFRJ, Brazil
- 11.30 am LCA and eco-efficiency of advanced wastewater treatment to remove micro pollutants**
FREDY DINKEL¹, Thomas Kägi¹, Rita Hochstrat², Thomas Wintgens²
¹Carbotech and FHNW, Basel, Switzerland; ²University of applied science North Western Switzerland, Muttenz, Switzerland
- 11.45 am Allocation formula for recycling and co-production in all product sectors**
DIEUWERTJE SCHRIJVERS^{1,2}, Guido Sonnemann^{1,2}
¹Cyvi, ISM, University of Bordeaux, France; ²ISM, CNRS, France
- 12.00 pm Design for recycling at Steelcase: Expertise and lessons learned from a pro-active office furniture company**
SEBASTIEN ZINCK¹, Edouard Carteron¹, Raphael Stermann²
¹Steelcase, France; ²Steelcase, Germany
- 12.15 pm Leveraging Public Procurement for Management of End-of-Life Products in India**
SANJAY KUMAR
DFCCIL, Ministry of Railway, Government of India., India



BUSINESS-GOVERNMENT DIALOGUE ON LIFE CYCLE THINKING FOR SUSTAINABILITY

LOCATION: ROOM E

CHAIRS: LLORENC MILA I CANALS, UNEP, FRANCE
ASHOK KUNAR PAVADIA, MINISTRY OF HOME AFFAIRS, GOVERNMENT OF INDIA

- 11.00 am **Introduction**
- 11.15 am **LCM implementation through partnerships between public and private sectors**
OSCAR ALBERTO VARGAS MORENO
Secretaría Distrital de Ambiente, Colombia
- 11.30 am **National dialogue between business and government on Environmental Footprint to support development and implementation**
Sara Palander¹, Eva Ahlner², Anita Lundström², Katarina Lorentzon³, ELLEN RIISE⁴, Karin Sanne⁵, Klas Hallberg⁵, Elin Eriksson⁶
¹the Swedish Life Cycle Center/Chalmers University of Technology, Sweden; ²Swedish Environmental Protection Agency; ³SP Technical Research Institute of Sweden, Food and Bioscience; ⁴SCA Hygiene Products AB; ⁵AkzoNobel; ⁶IVL Swedish Environmental Research Institute
- 11.45 am **Industry perspective to the implementation of Sustainable Production and Consumption tools in Mexico**
NYDIA SUPPEN
Center For Lca And Sustainable Design, Mexico
- 12.00 pm **Collaborative Activities between Business Sectors and Policy Makers for Sustainable Consumption and Production in Japan**
MASAHIKO HIRAO^{1,2}
¹The University of Tokyo, Japan; ²Green Purchasing Network, Japan
- 12.15 pm **Discussion**

PRACTICAL APPLICATIONS OF ADVANCED LCA TO LCM - I

LOCATION: ROOM F

CHAIRS: STEPHAN PFISTER, ETH ZURICH, SWITZERLAND
ANNIE LEVASSEUR, CIRAI, ÉCOLE POLYTECHNIQUE DE MONTRÉAL, CANADA

- 11.00 am **Regionalized assessment using LC IMPACT and ecoinvent: Case study of electricity production**
CHRISTOPHER L MUTEL
Paul Scherrer Institute, Switzerland
- 11.15 am **Refining the spatial resolution of water footprint characterization factors to identify new Life Cycle Management levers: Application to the water resources used for drinking water production in Paris area**
JEAN-BAPTISTE BAYART¹, Denis Chanteur², Philippe Loubet³, Anne Lang⁴
¹Quantis, France; ²Veolia Eau d'Ile de France, France; ³CyVi, ISM, Bordeaux INP, France; ⁴Syndicat des Eaux d'Ile de France, France
- 11.30 am **Regionalization of water consumption and the effect on water footprint results for hydro-power**
INGUNN SAUR MODAHL¹, Hanne Lerche Raadal¹, Tor Haakon Bakken², Kolbjørn Engeland³
¹Ostfold Research, Norway; ²Norwegian University of Science and Technology (NTNU), Norway; ³University of Oslo, Norway
- 11.45 am **Regionalised LCIA implementation in LCA software for decision-making analysis in LCM**
CRISTINA RODRÍGUEZ, Andreas Ciroth
GreenDelta GmbH, Germany
- 12.00 pm **Inventories regionalization: The Brazilian experience on agribusiness**
MARILIA IEDA DA S. FOLEGATTI MATSUURA¹, Fernando Rodrigues Teixeira Dias², Juliana Ferreira Picoli³, Cassia Maria Lie Ugaya⁴, Maria Clea Brito de Figueiredo⁵
¹Embrapa Meio Ambiente, Brazil; ²Embrapa Pantanal, Brazil; ³Unicamp, Brazil; ⁴Universidade Federal do Parana, Brazil; ⁵Embrapa Agroindustria Tropical, Brazil
- 12.15 pm **Discussion**



Schedule

WEDNESDAY, SEPTEMBER 2

02.00 pm – 03.00 pm

WEDNESDAY
02.00 pm – 03.00 pm

LCM AND COMMUNICATION

LOCATION: AMPHI A

CHAIRS: ANNE-MARIE TILLMAN, CHALMERS UNIVERSITY OF TECHNOLOGY, SWEDEN
MARY ANN CURRAN, BAMAC, LTD., UNITED STATES OF AMERICA

- 02.00 pm **A Communication Tool for Sales Forces in BtoB Market**
Xavier Durieux¹, HELENE TEULON², Gentiane Gastaldi²
¹Orange Business Services, France; ²GINGKO 21, France
- 02.15 pm **Sustainability-related communication and decision-making in design of automotive production lines**
NIKI BEY, Lucía I. Clemente Márquez, Jan-Markus Rödger
Technical University of Denmark, Denmark
- 02.30 pm **How to communicate and drive LCM thinking – a case study with the global manganese industry**
Mohammed Ali¹, LUKE WESTFALL¹, Julia Davourie¹, Doreen Mc Gough²
¹Hatch Ltd., Canada; ²International Manganese Institute, France
- 02.45 pm **From the Functional Unit to the retailing unit: ADEME proposal to allocate the impacts of the goods and services involved in the use phase to the product targeted for labelling**
OLIVIER RETHORE
ADEME, France



PRACTICAL APPLICATIONS OF ADVANCED LCA TO LCM - II

LOCATION: AMPHI B

CHAIRS: STEPHAN PFISTER, ETH ZURICH, SWITZERLAND
ESKINDER DEMISSE GEMECHU, UNIVERSITY OF BORDEAUX, FRANCE

- 02.00 pm **Dynamic Life Cycle Assessment modeling of the use phase: The case of a school**
EMIL POPOVICI, Enrico Benetto
Luxembourg Institute of Science and Technology, Luxembourg
- 02.15 pm **Geopolitical trading risks in petrochemical industries of the carbon fiber supply chain**
Eskinder D. Gemechu¹, CHRISTOPH HELBIG², Baptiste Pillain¹, Andrea Thorenz², Axel Tuma², Guido Sonnemann¹
¹CyVi, ISM, University of Bordeaux, France; ²Resource Lab, University of Augsburg, Germany
- 02.30 pm **Improving biogas value chains through actor collaboration and life cycle models**
KARI-ANNE LYNNG, Ingunn Saur Modahl, Aina Stensgård
Østfoldforskning, Norway
- 02.45 pm **Discussion**

LCM AND THE END OF LIFE OF PRODUCTS AND MATERIALS - II

LOCATION: AMPHI C

CHAIRS: ALLAN ASTRUP JENSEN, NIPSECT, DENMARK
EMMA REX, SP TECHNICAL RESEARCH INSTITUTE OF SWEDEN, SWEDEN

- 02.00 pm **Comparison of two End-of-Life approaches in the background of LCA – PEF formula vs. Multi-Reycling-Approach**
MARCO MENGARELLI¹, Kirana Wolf², Sabrina Neugebauer², Matthias Finkbeiner², Michele Germani¹
¹Università Politecnica delle Marche, Italy; ²Technische Universitae Berlin, Germany
- 02.15 pm **Where should we be using recovered PET? A dynamic life cycle model of PET flows in the US economy for environmental decision support for water bottle manufacturers**
Pascal Lesage¹, Pierre-Olivier Hays¹, Urs Schenker², MANUELE MARGNI¹
¹CIRAIG, Polytechnique Montréal, Canada; ²Nestlé Research Center
- 02.30 pm **An ISO-conform family of End-of-Life formulas for life cycle based product declarations and ecodesign purposes**
MARC-ANDREE WOLF¹, Kurt Buxmann², Christian Leroy³, Kirana Chomkhamsri⁴, Staf Laget⁵
¹maki Consulting, Germany; ²Private consultant, Switzerland; ³European Aluminium Association, Belgium; ⁴P.P.P. Intertrader, Thailand; ⁵Umicore, Belgium
- 02.45 pm **Discussion**



MAINSTREAMING LCM AROUND THE WORLD THROUGH ECOINNOVATION

LOCATION: ROOM E

CHAIRS: SONIA VALDIVIA, WOLRD RESOURCES FORUM, SWITZERLAND
PHILIPPE SCHIESSER, ECOEFF, FRANCE

- 02.00 pm **A collective contribution to improve ecoinnovation management inside companies**
Edouard Carteron¹, ANDRÉ FALCHI², Gentiane Gastaldi³, Christian Longet⁴
¹Steelcase, France; ²Etxeterra, France; ³Gingko 21, France; ⁴Parkeon, France
- 02.10 pm **Original Methodology based on LCA for Environmental Assessment of products**
VÉRONIQUE ANDRIES, Mélanie Bordignon, Marie-Jeanne Robert
Alstom Transport, France
- 02.20 pm **The potential of LCM to mainstream bottom-up eco-innovation and alternative thinking**
MICHELE DE ROSA¹, Agneta Ghose²
¹Aarhus University, Department of Agroecology, Denmark; ²Massey University, Institute of Agriculture and Environment, New Zealand
- 02.30 pm **Ecodesign and Ecoinnovation in Latin America**
NYDIA SUPPEN¹, Alejandro Chacon²
¹Center for LCA and sustainable design, Mexico; ²Ecodiseño Chile, Chile
- 02.40 pm **Assessing circular economy approaches by Life Cycle Management (LCM)**
MELANIE GUITON, Enrico Benetto, Alina Beloussova
Luxembourg Institute of Science and Technology, Luxembourg
- 02.50 pm **Discussion**

LCM FOR TEXTILES AND LEATHER PRODUCTS

LOCATION: ROOM F

CHAIRS: CHRISTÈLE MERTER, HAPPYCHIC, FRANCE
ANNE PERWUELZ, ENSAIT, FRANCE

- 02.00 pm **Using the planetary boundaries for evaluating interventions for impact reduction in the clothing industry**
Gustav Sandin¹, Sandra Roos², BAHAREH ZAMANI³, Greg M. Peters³, Magdalena Svanström³
¹SP Technical Research Institute of Sweden, Sweden; ²Swerea IVF, Sweden; ³Chalmers University of Technology, Sweden
- 02.10 pm **A distributed system for traceability and sustainability assessment of leather shoes supply chains**
Michele Germani, MARCO MARCONI, Eugenia Marilungo, Alessandra Papetti
Università Politecnica delle Marche, Italy
- 02.20 pm **Mainstreaming Life Cycle Management in Indonesian Small and Medium Enterprise for a Sustainable Batik Textile**
GHITA YOSHANTI^{1,2}, Kiyoshi Dowaki²
¹School of Business and Management ITB, Indonesia; ²Tokyo University of Science (TUS), Japan
- 02.30 pm **Improving a textile supply chain by assessing the social impacts of a textile product**
MARIE VUAILLAT, Stéphane Le Pochat
EVEA, France
- 02.40 pm **Danish apparel sector natural capital account**
MARIE DE SAXCÉ¹, Jannick Schmidt¹, Caroline Bartlett², Steven Bullock², Rune Jørgensen³, Niels Karim Høst-Madsen³
¹LCA Consultants, Denmark; ²Trucost, England; ³NIRAS, Denmark



Schedule

WEDNESDAY, SEPTEMBER 2

03.00 pm – 04.30 pm

WEDNESDAY
03.00 pm – 04.30 pm

TALK SHOW: STRENGTHENING THE TRANSITION TO CIRCULAR ECONOMY BY LCM

LOCATION: AMPHI A

MODERATOR: JODIE BRICOUT, CD2E, FRANCE

03.00 pm **Sangwon Suh, International Ressource Panel**

Ludovic Dariol, Airbus DS

Siebe Trompert, Philips

04.00 pm **Awards for best posters and best platform presentations**

Guido Sonnemann, ISM-CyVi – University of Bordeaux (Chair, LCM2015)

04.15 pm **Presentation of LCM2017**

Enrico Benetto, Head of RDI unit at Luxembourg Institute of Science and Technology (Chair, LCM2017)

04.20 pm **Concluding remarks and summary of LCM2015**

Guido Sonnemann, ISM-CyVi – University of Bordeaux

Manuele Margni, CIRAIG – Polytechnique Montréal

Naeem Adibi, [avniR] by cd2e



Posters

WEDNESDAY, SEPTEMBER 2

08.30 pm – 04.00 pm

WEDNESDAY
08.30 pm – 04.30 pm

BUSINESS-GOUVERNMENT DIALOGUE ON LIFE CYCLE THINKING FOR SUSTAINABILITY

CHAIRS: LLORENC MILA I CANALS, UNEP, FRANCE

W-163-1 The catalan ecodesign strategy, for a circular and eco-innovative economy
Maria José Sarrias¹, Josep Maria Masip¹, Anna Esteve¹, Raul Garcia-Lozano²,
Jordi Oliver-Solà^{2,3}, JULIA MARTINEZ-BLANCO³

¹Ministry of Territory and Sustainability. General Direction of Environmental Quality., Spain;

²Inèdit Innovació SL, UAB Research Park, Spain; ³Institute of Environmental Science and Technology (ICTA), Spain

W-454-2 Brazilian Policy for Sustainable Production and Consumption

Guilherme Marcelo Zanghelini^{1,2}, Edivan Cherubini^{1,2}, SEBASTIÃO ROBERTO SOARES¹

¹CICLOG - Life Cycle Assessment Research Group, Universidade Federal de Santa Catarina, Brazil;

²EnCiclo Soluções Sustentáveis



MAINSTREAMING LCM AROUND THE WORLD THROUGH ECOINNOVATION

CHAIRS: SONIA VALDIVIA, UNEP, FRANCE
PHILIP STROTHMANN, INTERNATIONAL NETWORK OF PRODUCT SUSTAINABILITY INITIATIVES,
GERMANY

W-630-3 Ecoinnovation or responsible innovation
WASSIM DAOUD
D&D Intelligence, France

W-658-4 Communication strategy in action for the Life Cycle Initiative
QUIROS ANA^{2,3}, Jodie Kathleen Bricout⁴, Llorenç Mila-I-Canals¹, Anne Claire Asselin¹
¹UNEP; ²Eco Global; ³ALCALA; ⁴cd2e

W-556-5 Life Cycle Practices: driven forces to ecoinnovations
WLADMIR HENRIQUES MOTTA
PPGCI - IBICT/UFRJ, Brazil

LCM AND COMMUNICATION

CHAIRS: ANNE-MARIE TILLMAN, CHALMERS UNIVERSITY OF TECHNOLOGY, SWEDEN
MARY ANN CURRAN, BAMAC, LTD., UNITED STATE OF AMERICA

W-256-6 Effective communication of environmental performance through EPDS acciona infrastructure’s experience
ROCÍO FERNÁNDEZ FLORES
ACCIONA Infraestructuras, Spain

W-355-7 The need for internationally-recognized procedures for mutual recognition between EPD programme operators
KRISTIAN JELSE, Sven-Olof Ryding
EPD International, Sweden

W-567-8 Design and communication of key messages from LCA studies in Mexico
NYDIA SUPPEN, Juan Pablo Chargoy
CENTER FOR LCA AND SUSTAINABLE DESIGN, Mexico

W-569-9 Data visualization of LCA results to communicate on sustainable products
FLORENT BLONDIN
Environmental Picture, Annecy, France

W-669-10 Boundary conditions for a sustainable use of modern ICT infrastructure
ROLAND HISCHIER¹, Lorenz M Hilty^{1,2}
¹Empa, Technology & Society Lab, St. Gallen, Switzerland; ²Informatics and Sustainability Research Group Department of Informatics, University of Zurich, Zurich, Switzerland



LCM FOR BUILDINGS: MATERIALS AND DESIGN

CHAIRS: JOAN RIERADEVALL, UNIVERSITAT AUTÓNOMA DE BARCELONA, SPAIN
ROCÍO FERNÁNDEZ FLORES, ACCIONA INFRAESTRUCTURAS, SPAIN

W-146-11 Life Cycle Assessment (LCA) Study of Buildings

NARAYANA PATI
National Council for Cement and Building Materials, India

W-151-12 Environmental assessment of drinking water supply and sewer networks for small to medium cities

DAVID SANJUAN-DELMÁS¹, Anna Petit-Boix¹, Desirée Marín², Xavier Gabarrell¹, Alejandro Josa³, Joan Rieradevall¹
¹Universitat Autònoma de Barcelona, Spain; ²CETaqua, Water Technology Centre, Spain; ³Universitat Politècnica de Catalunya-BarcelonaTech, Spain

W-183-13 Integration of simple LCA into complex systems: the CaSIE² project

ETIENNE LEES-PERASSO¹, Julie Orgelet¹, Damien Prunel¹, Axel Roy¹, Pierre Ravel², Galdric Sibiude², Nicolas Couillaud²
¹Bureau Veritas CODDE, France; ²Université Paris Est, Centre Scientifique et Technique du Bâtiment (CSTB)

W-258-14 Infrastructure in the product system of a life cycle assessment

FLORIAN PFEIFFER¹, Till Zimmermann^{1,2}, Martin Baitz³, Thilo Kupfer³
¹University of Bremen, Germany; ²ARTEC – Sustainability Research Center, Germany; ³PE International, Germany

W-269-15 A Production Efficiency Analysis of Material Stock in the Japanese Prefectures

SHOGO EGUCHI¹, Keijiro Okuoka², Shigemi Kagawa¹
¹Kyushu University, Japan; ²Nagoya University, Japan

W-352-16 Comparative Environmental footprint of binders for road construction materials considering supply chain and maintenance steps impacts: a stakeholders decision-making tool

CÉLINE VERRAT

W-353-17 Environmental footprint of Polymer modified Binders (PmB) designed to increase the durability of roads

CÉLINE VERRAT¹, Loïc FRANCKE², Angélique BRUNON¹, Vincent BAPTISTE¹, Jacques LEDUC², Géraldine PINOL¹
¹TOTAL Marketing & Services; ²TOTAL Energies Nouvelles

W-354-18 Environmental footprint of Warm Mix Asphalt VERSUS HOT Mix Asphalt technologies

CÉLINE VERRAT

W-389-19 Contribution of windows to the overall building environmental performances

CATIA BALDASSARRI¹, Fabrice Mathieux¹, Michael Oates², Fulvio Ardente¹
¹European Commission - Joint Research Centre, Institute for Environment and Sustainability (IES), Sustainability Assessment Unit (H08), Ispra (VA), IT; ²Integrated Environmental Solutions Limited, Glasgow, UK.

W-396-20 Development opportunities of ecodesign tools for the building sector - A French case-study

YANN LEROY^{1,2}, Guillaume Lamé^{1,2}, François Cluzel^{1,2}, Soumaya Yazidi^{1,2}
¹Ecole Centrale Paris, France; ²ECOSD

W-408-21 Experiential feedback from external critical reviews

NICOLAS DECOUSSER
CERIB, France

W-413-22 Comparative LCA of an innovative aggregate production method from incineration waste and CO2

ETIENNE LEES-PERASSO¹, Axel Roy¹, Alexandra Bourdot², Amar Benazzouk², Geoffrey Promis², Julie Orgelet¹, Damien Prunel¹
¹Bureau Veritas CODDE, France; ²Université de Picardie Jules Verne, Laboratoire des Technologies Innovantes



- W-434-23 Refurbishment : integration of circular economy indicators in environmental assesment tools**
JASHA OOSTERBAAN
MINES ParisTech, PSL Research University, France
- W-470-24 Embodied energy in systems of façade refurbishment with different thermal insulation materials**
Jorge Sierra-Pérez^{1,2}, JESÚS BOSCHMONART-RIVES^{1,3}, Xavier Gabarrell Durany^{1,4}
¹Sostenipra (ICTA – IRTA - Inèdit Innovació SL), Barcelona, Spain.; ²Centro Universitario de la Defensa, Spain; ³Inèdit Innovació, S.L. Parc de Recerca de la Universitat Autònoma de Barcelona (UAB), Spain; ⁴Department of Chemical Engineering (XBR), Spain
- W-500-25 Life cycle cost of PV overhangs integrated in the main building of a university campus in Mendoza, Argentina**
ALEJANDRO PABLO ARENA, Martín Nicolás Funes, Germán Henderson
UTN, Argentine Republic
- W-524-26 Life Cycle Assessment and eco-design of building materials: the case study of a Sicilian cement plaster**
Maurizio Cellura¹, Francesco Guarino¹, SONIA LONGO¹, Giovanni Salemi²
¹University of Palermo, Dipartimento di Energia, Ingegneria dell'Informazione e Modelli Matematici, Italy; ²Dipartimento Urbanistica, Assessorato Regionale Territorio e Ambiente, Regione Sicilia, Italy
- W-553-27 A Belgian assessment framework supporting decision-making regarding the environmental performance of building solutions**
WAI CHUNG LAM¹, Wim Debacker¹, Karen Allacker², Roos Servaes³
¹VITO, Belgium; ²ASRO, KU Leuven, Belgium; ³OVAM, Belgium
- W-570-28 Avoided GHG Emissions Achieved By Using Architectural Window Film: An LCA Compliant With WBCSD Avoided Emissions Guidelines**
Terrie Boguski¹, HEATHER LAUREN JOHNSON²
¹Harmony Environmental, LLC, United States of America; ²Eastman Chemical Company, United States of America

- W-580-29 DECADIESE: a new method to assess buildings' sustainable value through functional performance and externalities integration**
FRANCOIS CLUZEL, Bernard Yannou, Pascal Da Costa
Ecole Centrale Paris, France
- W-587-30 Critical review of LCA for the built environment at the neighborhood scale**
MARC LOTTEAU¹, Maxime Pousse¹, Philippe Loubet², Emmanuel Dufrasnes¹, Guido Sonnemann³
¹Nobatek; ²INP Bordeaux; ³University of Bordeau
- W-593-31 Life Cycle Costing assessment of water supply and sewer networks in small-medium cities**
Carla Arnal¹, Desirée Marín¹, Montserrat Termes-Rifé^{1,2}, Miriam Planas³, Anna Petit-Boix⁴, David Sanjuan-Delmás⁴, Maria José Amores¹, XAVIER ALDEA¹
¹CETAQUA, Water Technology Centre, Spain; ²Universitat de Barcelona, Department of Economic Policy, Faculty of Economics and Business, Spain; ³SOREA S.A, Spain; ⁴Sostenipra, Institute of Environmental Sciences and Technology (ICTA), School of Engineering, Universitat Autònoma de Barcelona (UAB), Spain
- W-629-32 Facilitating the use of EPDs as a sustainability tool in the construction secto**
ERIK SVANES¹, Dina Margrete Aspen², Christofer Skaar³
¹Ostfold Research; ²Norwegian University of Science and Technology; ³Asplan Viak
- W-654-33 EPDs as driver for sustainable innovation in Norwegian concrete industry**
Mie Vold, Anne Rønning, Trond Edvardsen
Ostfold Research, Norway
- W-656-34 Environmental Performance of Green Building Certification Systems**
Yannick Lessard, Chirjiv Anand, M. BEN AMOR
Université de Sherbrooke, Department of Civil Engineering. Canada
- W-657-35 Towards absolute sustainability of neighbourhoods: how to reach lifestyles respecting the planetary boundaries**
CECILE BULLE
CIRAIG - ESG UQAM, Canada



- W-679-36 **Ecodesign and life cycle assessment of bio-based insulating material**
PHILIPPE SCHIESSER¹, Mickaël LEBLANC¹, Patrick LACROIX², Roland EL HAGE², Anne BERGERET³, Stéphane CORN³
¹ECOEFF, France; ²Greenpile, France; ³Ecole des Mines d'Alès, France
- W-681-37 **LCM in commercial areas using the potentials of electric mobility : The eCar-Park Sindelfingen**
MANFRED SCHMID
- W-722-38 **Life cycle assessment on hard rock tunnelling**
Lizhen Huang¹, ROLF ANDRÉ BOHNE², Amund Bruland², Hrefna Rún Vignisdóttir², Pål Drevland Jakobsen²
¹Gjøvik University College, Norway; ²Department of civil and transport engineering, Norwegian University of Science and Technology, Norway
- W-745-39 **DE-bois.fr, a web platform for easier and more reliable consideration of French wood products in LCM of buildings**
FRANÇOIS PRIVAT, Estelle Vial, Cécile Hurel, Gérard Deroubaix
Institut technologique FCBA, France
- W-750-40 **Plateforme ECCO : a Swiss-French cross-border platform for the promotion of eco-construction and eco-materials**
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¹Technische Universität München; ²Institut technologique FCBA
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HOW COLLABORATIVE RESEARCH ON LIFE CYCLE MAY IMPROVE LCA PRACTICES FOR BUSINESSES : SCORELCA FEEDBACK

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