4th International Seminar on Society and Materials SAM4

28-29 April 2010, Nancy, France

ArcelorMittal

ECOLE DES MINES DE NANCY

Nancy-Université INPL

Institut Jean Lamour

région lorraine

SAM4 Program

Day 1 – 28 April

9:00	Registration
9:20	Welcome & Introduction

Session 1: Ecological and carbon footprints

9:40	**Regional assessment of carbon footprint of industrial sectors in the Basque autonomous community. Analysis of intersectorial GHG transfers with help of NAMEA instruments** *Alberto Bonilla, Arantza López, Ales Padró, Laura Gutiérrez* *TECNALIA, Unit of Environment*
10:00	**Ecological footprint for the evaluation of consumption patterns: the case of Luxembourg** *Morgane Mey, Paula Hild*, Colin Jury, Enrico Benetto* *Resource Centre for Environmental Technologies (CRTE)*
10:20	**From LCA studies to the first automotive self declared life cycle environmental label** *MOREL Stéphane (1), CHEMINEAU Léonard (2),(3), MARIE François (4)* *(1) RENAULT Environmental Strategy-Life Cycle* *(2) ENSAM* *(3) RENAULT Design for Recycling* *(4) RENAULT Environmental Strategy-Marketing*
10:40	**Calculation model to assess environment impact of current consumption products** *Jean-Baptiste Biau, Johan Schram* *Energies Demain*
11:00	**Carbon footprint of a cleaning service company** *Masoni P., Porta P. L.* *ENEA*
11:20	**Recycling and environmental footprint : the limits of current allocation methods and perspectives** *Jean-Sébastien Thomas* *ArcelorMittal Research, Sustainability*
11:40	Questions & Discussions
12:00	Lunch

Session 2: The promise of new technologies

13:20	**Open window on corporate sustainability: Evidence of materials innovations in Flemish enterprises** *Ann Crabbé (1), Ria Jacobs (2), Anne Bergmans (1), Veronique Vanhoof (2), Marian Deblonde (3), Stijn Willems (2), Jan Meneve (2) and Ive Vanderreydt (2)* *(1) University of Antwerp, Faculty of Political and Social Sciences* *(2) Flemish Institute for Technological Research (VITO)* *(3) Institute Society and Technology, Flemish Parliament*
13:40	**Life Cycle Assessment (LCA) of the deposition of organsilicon anti-corrosion layers on galvanized steel by means of atmospheric plasma** *Colin JURY (1)*, Enrico BENETTO (1), François ZIMMERMANN (1), Julien BARDON (2), David RUCH (2)* *(1) Resource Centre for Environmental Technologies (CRTE)* *(2) Department of Advanced Materials and Structures (DAMS)*
14:00	**Working on the environment-economy interface: What to consider and how?** *Alessandra Zamagni (1), Andrea Raggi (2), Roberto Buonamici (1), Paolo Masoni (1)* *(1) ENEA* *(2) Dipartimento Scienze Aziendali, Statistiche, Tecnologiche e Ambientali, Università G. D'Annunzio*
14:20	**LCA at the earliest stages of process development** *Jan Paul Lindner* *Department Life Cycle Engineering (GaBi), Fraunhofer Institute for Building Physics (IBP)*
14:40	**LCA of biomethane as vehicle fuel: the EU project BIOGASMAX** *Jan Paul Lindner, Robert Ilg* *Department Life Cycle Engineering (GaBi), Chair of Building Physics (LBP), University of Stuttgart*
15:00	**Consequential LCA of a large system affected by a non-marginal perturbation in a time-dependent environment: a European bioenergy policy study** *Thomas Dandres, Pascal Lesage, Pablo Tirado Seco and Réjean Samson* *CIRAIG,École Polytechnique de Montréal*
15:20	Questions & Discussions
15:40	Pause

Session 3: Industrial ecology

16:00	**Use of natural fibres to build environmental friendly composites** *A. DELILLE, S. MANTALARIS, and A. BISMARCK* *Imperial College of London*
16:20	**On the stability of industrial ecosystems** *Jiali Rui* *Institute of Environmental Sciences (CML), Leiden University*
16:40	**An inter-company approach to improve resource and energy efficiency and reduce greenhouse gas emissions in the metal industry by combining flowsheet simulation with linear programming** *Magnus Fröhling, Frank Schwaderer, Hauke Bartusch, and Frank Schultmann* *French-German Institute for Environmental Research, Karlsruhe Institute of Technology (KIT)*
17:00	**Industrial ecology in Northern Areas. Practical experience and development** *Carl-Erik Grip (1), Rikard Gebart (2), Jonny Karlsson (3), Erik Sandström (4)* *(1) Luleå University of Technology (LTU)* *(2) ETC, Piteå* *(3) SSAB* *(4) Lulekraft*
17:20	**Heat recovery via inter-company process integration: techno-economic potential and cooperation based on fairness and trust** *Michael Hiete, Jens Ludwig, and Frank Schultmann* *French-German Institute for Environmental Research, Karlsruhe Institute of Technology (KIT)*
17:40	**The 3P-scan: a method to trace innovative and sustainable product development** *Shamuilia S. (1) and Van Acker K.(2)* *(1) Department of Metallurgy and Materials Engineering, KULeuven* *(2) Leuven Materials Research Centre, KULeuven*
18:00	Questions & Discussions

18:30 – End of day 1

Day 2 – 29 April

Session 4: Resources analysis

9:00	**Sustainable Use of scrap and Design for Disassemble technology: Hybrid LCA of Active Disassembling Fasteners made of Hydrogen Storage Alloys implemented to home appliances** *Shinichiro Nakamura (1), Eiji Yamasue (2)* *(1) Graduate School of Economics, Waseda University,* *(2) Graduate School of Energy Science, Kyoto University*
9:20	**Reproducing services from iron stocks** *Daniel B. Müller and Tao Wang* *Norwegian University of Science and Technology (NTNU)*
9:40	**Emergy analysis for the evaluation of natural resources depletion in LCA: added value?** *Costanza Scacchi, Enrico Benetto*, Colin Jury* *Resource Centre for Environmental Technologies (CRTE)*
10:00	**Strategies for fulfilment of critical raw materials demand in Europe** *Dieter Senk (1), Franz Michael Meyer (2), Thomas Pretz (3), Gergana Abrasheva (1)* *RWTH Aachen University,* *(1) Department of Ferrous Metallurgy* *(2) Department of Mineralogy and Economic Geology* *(3) Department of Processing and Recycling of Solid Waste Material*
10:20	**Outlook of the world steel cycle based on the stock and flow dynamics** *Hiroki Hatayama, Ichiro Daigo, Yasunari Matsuno and Yoshihiro Adachi* *Department of Materials Engineering, Graduate School of Engineering, The University of Tokyo*
10:40	**Dissipative applications of Lithium - Lost for the future?** *S. Ziemann; M. Weil; L. Schebek* *Karlsruhe Institute of Technology (KIT), Institute for Technology Assessment and System Analysis (ITAS)*
11:00	Questions & Discussions
11:20	Pause

Session 5: New and old, lasting and ephemeral, life, death and perenniality of products and services

11:40	**The evolution of the waste hierarchy as a conventional principle in European waste management** *David A Lazarevic (1,2,3)*, Emmanuelle Aoustin (1), Nicolas Buclet (2), Nils Brandt (3)* *(1) Veolia Environnement, Direction Environnement – Risques et Impacts Environnementaux* *(2) Centre for Interdisciplinary Studies in Sustainable Development, Institute Charles Delaunay, Troyes Uni-versity of Technology* *(3) Division of Industrial Ecology, School of Industrial Engineering and Management, Royal Institute of Technology (KTH)*
12:00	**New electric vehicles and business models - A consistency analysis of functional unit for vehicle LCA** *MOREL Stéphane (1), DANG Van (2,3)* *(1) Renault, Environmental Strategy-Life Cycle* *(2) Ecole des Mines de Paris, Centre d'Energétique* *(3) Renault, Automotive Advanced Technologies*
12:20	**Post-Carbon Societies and Materials involvement** *Mauro Chiappini* *ArcelorMittal Research, Sustainability*
12:40	**Rethinking Material Flows: Assessing a New Business Model for Material Repurposing** *Carmela Cucuzzella (1), Charles Colby (1), Martin Racine (2), Philippe Lalande (1)* *(1) Université de Montréal, Faculté de l'Aménagement* *(2) Concordia University, Faculty of Fine Arts*
13:00	**Introduction of Life cycle analysis in the process of ecodesign within SMEs of furniture: Perspective of sustainable design** *Marie Bellemare (1), Pierre De Coninck (1), Carmela Cucuzzella (1), Pierre-Marc Gosselin (2), Michel Trépanier (3)* *(1) CIRAIG* *(2) University of Ottawa*
13:20	**A UNEP/SETAC Tool Box for LC Sustainability Assessment of Products** *Sonia Valdivia (1), Cássia Maria Lie Ugaya (2), Andreas Ciroth (3), Bin Lu (4)* *(1) UNEP* *(2) UTFPR* *(3) GreenDeltaTC* *(4) Research Center for Eco-Environmental Sciences, Chinese Academy of Science*
13:40	Questions & Discussions
14:00	Conclusions JP Birat– End of SAM4
14:20	Closing Lunch