

Oral Program

Sunday 1st November 2015

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| 10:00-12:30 | Registration Auditorium Foyer | | | | | | | | | | |
| Auditorium | | | | | | | | | | | |
| 12:30-13:00 | Conference Opening and Welcome | | | | | | | | | | |
| 13:00-13:45 | K01: Transforming global societies with the aid of the Sustainable Development Goals: Realistic vision or impossible dreams? <i>Kitty van der Heijden, Director, World Resources Institute Europe Office, The Netherlands</i> | | | | | | | | | | |
| 13:45-14:30 | K02: Bending the GHG emission curve and achieving wide-scale cleaner production benefits by 2025 <i>Warren Evans, Former Director, Environment Department, World Bank, USA</i> | | | | | | | | | | |
| 14:30-15:00 | Refreshment Break Auditorium Foyer | | | | | | | | | | |
| Rooms | Auditorium | Garbi | Llevant 1 | Llevant 2 | Llevant 3 | Llevant 4 | Mestral 1 | Mestral 2 | Mestral 3 | Mestral 4 | TBC |
| 15:00-17:30 | Session 1: Corporate Sustainability | Session 2: Manufacturing | Session 3: Construction | Session 4: Energy | Session 5: Paradigm Change | Workshop 1: Sustainability in Higher Education: The Mid-Career | Workshop 2: Bioeconomy | Workshop 3: Sustainable Enterprise Business Models in Emerging Markets | Session 6: Waste Management | Workshop 4: Making next steps in Getting Product Prices Right | |
| 15:00-15:15 | [O1.01] Emerging sustainable practices in the context of Industry 4.0 A.Y.S. Duarte ^{*1} , ² F.G. Dedini ¹ , A. Reiner ² , ¹ State University of Campinas, Brazil, ² Technische Universität Darmstadt, Germany | [O2.01] Go-green anemone: an intelligent manufacturing system's engineering method that fosters sustainability A. Giret ^{*1} , D. Trentesaux ² , ¹ Universidad Politecnica de Valencia, Spain ² University of Valenciennes and Hainaut- | [O3.01] Harnessing the motivations of architectural designers to engage with sustainable construction N. Murtagh*, A.H. Roberts, R. Hind, UCL, UK | [O4.01] Multi-criteria methodology for evaluation of the power plants with carbon dioxide capture process C. Dinca, University POLITEHNICA of Bucharest, Romania | [O5.01] Bring your passion to business N.L. Schumm, Schumm Consulting LLC, USA | | [WS2.01] Mapping biobased development pathways by a new approach E.G. Koukios, NTU Athens, Greece | [WS3.01] Business models for the diffusion of climate smart agricultural technological innovations: Critical issues and considerations V. Blok*, T. Long, Wageningen University, The Netherlands | [O6.01] Waste management: Relevance to environmental sustainability B. Abila*, J. Kantola, University of Vaasa, Finland | [WS4.01] Choice experiment to assess consumer's attitude toward "climate neutral" food: the interaction between food environmental labels L.P. Ding*, C.M. Shuai, W.J. Li, G.V. Lombardi*, R. Berni, B. Rocchi, University of Florence, Italy | Empirical analysis of public's cognition and willingness to adopt solar power generation facilities based on SEM – a case in China L.P. Ding*, C.M. Shuai, W.J. Li, J. Shuai, China University of Geosciences (Wuhan), China |

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| | | <i>Cambrésis, France</i> | | | | | | | | | |
| 15:15-15:30 | [O1.02] Industry 4.0 in a sustainable society: Challenges, competencies and opportunities F. Stiel*, F. Teuteberg, <i>Osnabrück University, Germany</i> | [O2.02] Extending product life through additive manufacturing: The sustainability implications S.J. Ford* ¹ , M. Despeisse ¹ , A.M. Viljakainen ² , ¹ <i>University of Cambridge, UK</i> , ² <i>VTT Technical Research Centre of Finland, Finland</i> | [O3.02] Properties of cement concrete with waste tyre rubber as an ingredient B.S. Thomas*, R.C. Gupta, <i>MNIT Jaipur, India</i> | [O4.02] Exploring methods to assess the impact of low carbon electricity generation on the embodied carbon of electricity network assets L.A. Daniels*, B.A. Potter, P.J. Coker, <i>University of Reading, UK</i> | [O5.02] Woven strategies for sustainable change M. Salo* ^{1,3} , H. Vanharanta ² , J. Kantola ¹ , E. Markopoulos ¹ , ¹ <i>University of Vaasa, Finland</i> , ² <i>Tampere University of Technology, Finland</i> , ³ <i>Valmet Technologies, Finland</i> | WS1 | [WS2.02] Life cycle assessment of biomass-based electricity generation in China C. Xu, J. Hong*, <i>Shandong University, China</i> | [WS3.02] Optimization of heterogenous catalytic synthesis of biodiesel from melon seed oil using chitosan I.A. Mohammed*, U. Musa, B. Suleiman, A.G. Isah, I.H. Akor, <i>Federal University of Technology Minna, Nigeria</i> | [O6.02] Beyond incineration? Representing gasification for municipal solid waste (MSW) treatment P.J. Upham* ^{1,3} , L. Levidow ² , ¹ <i>University of Leeds, UK</i> , ² <i>Open University, UK</i> , ³ <i>Leuphana Universität, Germany</i> | [WS4.02] Monetization of the environmental external costs (eco-costs) and of the social external costs (s-eco-costs) of industrial production in third world countries: A LCA-based case of clothing production in India and Bangladesh N.M. van der Velden*, J.G. Vogtländer, <i>Delft University of Technology, The Netherlands</i> | Multi-objective optimization model for supply chain sustainability policy impact assessment B. Mota ¹ , A. Carvalho* ¹ , I. Gomes ² , A. Barbosa-Póvoa ¹ , ¹ <i>Instituto Superior Técnico, Portugal</i> , ² <i>Nova University of Lisbon, Portugal</i> |
| 15:30-15:45 | [O1.03] Does it affect the environmental behaviour in the economic performance of the company? Empirical study in two phases. S. Scarpellini ^{1,2} , J. Valero-Gil* ^{1,2} , P. Rivera-Torres ¹ , | [O2.03] Life cycle engineering and evaluation of hybrid products and manufacturing processes C. Symmank ¹ , W. Zorn ² , A. Albert ² , A. Schmidt ¹ , U. Götze* ¹ , W-G. Drossel ² , | [O3.03] Performance improvement in cement production D.L. Summerbell*, J. Cullen, C. Barlow, <i>University of Cambridge, UK</i> | [O4.03] Carbon performance in energy intensive industries: a comparative case study A. Paul*, R.J. Baumgartner, <i>University of Graz, Austria</i> | [O5.03] Crafting collaboration: a conceptual exploration of strategizing by constituents in Hubs M.A.A. Kamm* ^{1,2} , N.F. Faber ² , J. Jonker ¹ , ¹ <i>Saxony University of Applied</i> | WS1 | [WS2.03] Palm oil mill effluent (POME) and municipal wastewater co-treatment by zeolite augmented sequencing batch reactors (SBR): Turbidity removal H. Farraji*, N.Q. Zaman, H.A. | [WS3.03] Sustainable businesses in Latin America as hybrid organizations V. Faber* ¹ , N. Franco ² , G. Berger ³ , B. Van Hoof ² , ¹ <i>Pacific University, Peru</i> , ² <i>Universidad de Los Andes,</i> | [O6.03] Proposed solutions in municipal solid waste management B. Abila*, J. Kantola, <i>University of Vaasa, Finland</i> | [WS4.03] Comprehensive LCA for true pricing of products P.R. Croes*, W.J.V. Vermeulen, <i>University, The Netherlands</i> | Multi-viewpoint sustainability assessment of a biogas plants installed in piggeries-A case study in Jintan, Jianguo, China- T. Hayashi ¹ , D. Kunii* ¹ , Y. Takahashi ² , |

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| | C. Garcés-Ayerbe ¹ , ¹ University of Zaragoza, Spain, ² CIRCE Foundation, Spain | ¹ Technische Universität Chemnitz, Germany, ² Fraunhofer Institute for Machine Tools and Forming Technology, Chemnitz/Dresden, Germany | | | Sciences, The Netherlands, ² Radboud University Nijmegen, The Netherlands | | Aziz, P. Mohajeri, A. Mojiri, Universiti Sains Malaysia (USM), Malaysia | Colombia, ³ Universidad de San Andres, Argentina | | | ¹ Ministry of Agriculture, Forestry and Fisheries, Japan, ² Kyushu University, Japan |
| 15:45-16:00 | [O1.04] Corporate social performance: inter-industry and international differences H. Arminen*, K. Puumalainen, S. Pätäri, Lappeenranta University of Technology, Finland | [O2.04] Machine scheduling with energy consumption consideration W.L. Xue*, S.J. Li, H.Y. Wang, Southeast University, China | [O3.04] Reducing greenhouse gasses emissions in cement industry by fostering the wider deployment of alternative materials and alternative energy sources in the cement manufacturing process H. Mikulcic ¹ , J.J. Klemeš ² , M. Vujanovic ¹ , K. Urbaniec ³ , N. Duic* ¹ , ¹ University of Zagreb, Croatia, ² University of Pannonia, Hungary, ³ Warsaw | [O4.04] Carbon structural adjustment: Designing, motivating, and delivering an economy wide low carbon transition K. Hargroves, Curtin University, Australia | [O5.04] Sustainable business experimentation on capability - an in-depth case I. Weissbrod* ¹ , N. Bocken ² , ³ , ¹ Imperial College London, UK, ² Delft University of Technology, The Netherlands, ³ University of Cambridge, UK | WS1 | [WS2.04] Eco-efficient biorefineries: Techno-fix for resource constraints? L. Levidow, Open University, UK | [WS3.04] Value creation and distribution through sustainable enterprise E. Reficco, R. Gutiérrez*, B. Van Hoof, Universidad de Los Andes, Colombia | [O6.04] Exploring linkages between sustainable consumption and prevailing green practices in reuse and recycling of waste: a case of Bhopal city in India R.U. Pandey* ¹ , A. Surjan ² , M. Kapshe ³ , ¹ School of Planning and Architecture Bhopal, India, ² Charles Darwin University, Australia, ³ Maulana Azad National Institute of Technology Bhopal, India | [WS4.04] The social footprint: Combining impacts of bad governance, income inequality and shared value B.P. Weidema* ¹ , M. de Sacxé ² , ¹ Aalborg University, Denmark, ² -O LCA Consultants, Denmark | Systems thinking for sustainable textiles in the automotive sector P. Sinha* ¹ , I.R. Taylor ² , ¹ University of Leeds, UK, ² Sage AI, UK |

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| | | | University of Technology, Poland | | | | | | | | |
| 16:00-16:15 | [O1.05] The dark side of sustainability: Potential negative consequences that result from sustainable business practices N. Tervonen, J. Keränen, S. Patala*, <i>Lappeenranta University of Technology, Finland</i> | [O2.05] A capacitated plant location model for reverse logistic activities E.K.F. Coelho*, G.R. Mateus, <i>Universidade Federal de Minas Gerais, Brazil</i> | [O3.05] Future of residential wood construction in Europe: Participatory backcasting approach E. Hurmekoski* ¹ , J. Pykäläinen ² , ¹ European Forest Institute, Finland, ² University of Eastern Finland, Finland | [O4.05] How will emissions trading scheme affect China's long-term evolution of energy technologies? H.B. Duan* ^{1,2} , L. Zhu ² , G. Kumbaroglu ³ , Y. Fan ² , ¹ University of Chinese Academy of Sciences, China, ² Institute of Policy and Management, China, ³ Bogazici University, Turkey | [O5.05] By any other name: perspectives on restoration design and regenerative design at the (sub/peri)urban interface of nature and culture R.L. France, <i>Dalhousie University, Canada</i> | WS1 | [WS2.05] Current status, development and perspective of biogas industrialization in China R.L. Gao*, Z.F. Li, S.K. Cheng, H.P. Mang, F.B. Yin, X.M. Wang, <i>University of Science and Technology Beijing, China</i> | [WS3.05] Stakeholder engagement and business model innovations in Latin-American sustainable enterprises N. Auletta ¹ , G.M. Comini ² , R.M. Fischer ² , R. Gutierrez ³ , M.H. Jaen ¹ , E. Reficco* ³ , ¹ IESA, Venezuela, ² Universidade de São Paulo, Brazil, ³ Universidad de Los Andes, Colombia | [O6.05] Consumer behaviors towards electronic waste in Brazil: an application of the theory of planned behavior F. Echegaray* ¹ , F. Hansstein ¹ , ¹ Market Analysis, Brazil, ² Shanghai University of Finance and Economics, China | [WS4.05] Tackling corporate hypocrisy: The facts panel on Corporate Social and Environmental Behavior (CSEB facts panel) and its effects on consumer response A. Plank*, K. Teichmann, <i>University of Innsbruck, Austria</i> | Implementation of the EU sustainable consumption and production policy in terms of carbon footprint G. Liobikiene*, R. Dagiliute, R. Juknys, <i>Vytautas Magnus University, Lithuania</i> |
| 16:15-16:30 | [O1.06] Barriers to industrial sustainability measures: a proposal for a novel integrated framework A. Trianni*, E. Cagno, A. Neri, <i>Politecnico di Milano, Italy</i> | [O2.06] Decision autonomy on sustainability in international manufacturing networks T. Fagerlund, M. Stefanicki, A. Feldmann*, <i>Royal Institute of Technology, Sweden</i> | [O3.06] Natural ventilation improvement to reach a better indoor air quality in office rooms in Madrid S. Hormigos-Jiménez*, R.A. González-Lezcano, <i>Universidad CEU San Pablo, Spain</i> | [O4.06] Reducing solar power investment risks in rapidly developing countries: The impact of domestic policy and development finance L. Carafa ¹ , ¹ Barcelona Centre for International | [O5.06] An offering's occurrence at multiple points on a linear scale of product and service B. Deo* ¹ , T. Short ¹ , M. Li ^{1,2} , R. Sutton ¹ , S. Ahmadi ¹ , ¹ University of Liverpool, UK, ² Dalian University of Technology, China | WS1 | [WS2.06] Bio-based industry development model A. Blumberga, I. Muizniece, D. Blumberga, A. Kubule*, <i>Riga Technical University, Institute of Energy Systems and Environment, Latvia</i> | [WS3.06] Theoretical foundations of sustainable business models B. Van Hoof* ¹ , N. Bocken ¹ , ¹ Universidad de los Andes, Colombia, ² Cambridge University, UK | [O6.06] Utilisation trends of fat, oil and grease (FOG) waste from food service outlets (FSOs) in Ireland T. Wallace* ¹ , M. O'Dwyer ² , T.P. Curran ¹ , ¹ University College Dublin, Ireland, ² Evolution Environmental | [WS4.06] An industrial water management value system framework B.P. Walsh*, J. McCarthy, D.T.J. O'Sullivan, <i>University College Cork, Ireland</i> | Transferring practices from various industries to extend and improve garment life-cycle S.H. Khajavi*, T.R. Nyberg, <i>Aalto University, Finland</i> |

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| | | | | Affairs, Spain, ² University of Cambridge, UK | | | | | Services Ltd in partnership with Noonan Services Group, Ireland | | |
| 16:30-16:45 | [O1.07] One by one: How social enterprises manage competing demands M. Siegner* ¹ , R. Panwar ¹ , J. Pinkse ² , ¹ University of British Columbia, Canada, ² The University of Manchester, UK | [O2.07] Estimating energy consumption of injection moulding for environmental-driven mould design P. Matarrese, A. Fontana*, M. Sorlini, L. Diviani, SUPSI, Switzerland | [O3.07] Implementing green city management: A comparative study on three continents C.N. Madu ^{1,2} , C. Kuei* ¹ , P. Lee ¹ , ¹ Pace University, USA, ² University of Nigeria, Nigeria | [O4.07] Overview of technologies for improving energy efficiency from energy intensive industries derived from the Italian national experience in IPPC permit licensing C. Mazziotti*, D. Fiore, M. Favaroni, A. Fardelli, Italian National Research Council (CNR) - Institute of Atmospheric Pollution Division at MATTM, Italy | [O5.07] Arts for environmental qualities Y. Krozer, University Twente and Sustainable Innovations Academy, The Netherlands | WS1 | [WS2.07] From waste treatment to resource efficiency -An analysis of EU funded research projects F. Montevecchi*, A. Martinuzzi, WU Vienna University of Economics and Business, Austria | [WS3.07] An innovation system perspective on the drivers of cost reduction for emerging energy technologies: The case of photovoltaic deployment in Germany L. Strupeit*, L. Neij, International Institute for Industrial Environmental Economics, Lund University, Sweden | [O6.07] Recommendations for minimizing the environmental impacts associated to the end-of-life of gypsum plasterboard A. Jiménez-Rivero*, M. Rodríguez-Quijano, J. García-Navarro, Research Group Sustainability in Construction and Industry giSCI - UPM, Universidad Politecnica de Madrid, Spain | [WS4.07] Global resource accounting to “get product prices right“: Improved life-cycle inventories and data quality based on the myEcoCost framework J.K.J. von Geibler* ¹ , K. Wiesen ¹ , L. Echternacht ¹ , R.S. Mostyn ² , ¹ Wuppertal Institute, Germany, ² Robert Stewart Mostyn, UK | Standards in public procurement – A preliminary conceptual framework for enhancing eco-innovation A. Rainville, Technical University Berlin, Germany |
| 16:45-17:00 | [O1.08] Insights into how to influence systems change whilst creating system change knowledge: A case study of | [O2.08] Using patented parallel wire cables (PWC) and related sustainable design to revolutionize the wind and | [O3.08] Contribution of urban rehabilitation to Lisbon built environment system resilience | [O4.08] Effect of real time pricing on residential electricity consumption: Evidence from China H. Wang, H. Fang, X. Yu*, | [O5.08] Planning for sharing- How local authorities may encourage ecological citizenship K. Bradley*, A. Hult, | WS1 | [WS2.08] Chemicals from biomass: A feasible option or a chimera? A review G. Fiorentino*, M. Ripa, S. Ulgiati, | [WS3.08] Trade-offs of scaling sustainable business models A. Vernis* ³ , V. Faber ¹ , A. Prado ² , | [O6.08] Liquid whey recycling within the traditional dairy chain, as a sustainable alternative for whey waste management | | Environmental Purchasing in Emerging Markets – insights from Colombia B. Van Hoof, M. Thiel*, Universidad de Los Andes, Colombia |

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| | <p>an academic-industry consortium researching industrial sustainability I. Weissbrod*¹, G. Brennan¹, D. Morgan², ¹Imperial College London, UK, ²University of Cambridge, UK</p> | <p>transmission industries C.A. Craig*¹, A. Lambert², ¹University of Arkansas, USA, ²Efficient Structural Solutions LLC, USA</p> | <p>P.F. Pereira*, M.R. Partidário, University of Lisbon, Portugal</p> | <p>Beihang University, China</p> | <p>KTH Royal Institute of Technology, Sweden</p> | | <p>University of Naples Parthenope, Italy</p> | <p>¹Universidad del Pacifico, Peru, ²INCAE Business School, Costa Rica, ³ESADE Business School, Spain</p> | <p>N. Palmieri*¹, M.B. Forleo², E. Salimei³, ¹University of Molise, Italy, ²University of Molise, Italy, ³University of Molise, Italy</p> | | |
| 17:00-17:15 | <p>[O1.09] The impact of gender, education and age on employee attitudes towards corporate social responsibility F. Rosati*¹, A. Calabrese², R. Costa², E.R.G. Pedersen³, ¹Technical University of Denmark, Denmark, ²University of Rome Tor Vergata, Italy, ³Copenhagen Business School, Denmark</p> | <p>[O2.09] Using of vetiver grass for feldspar replacement in ceramic processing T. Threrujirapapong*, W. Khanitchadecha, A. Nakaruk, Naresuan University, Thailand</p> | <p>[O3.09] Modelling emergy-based urban dynamic sustainability: Considering pollution damages to human health, environment and resources X.Y. Liu, P. Antonio, G.Y. Liu*, Beijing Normal University, China</p> | <p>[O4.09] Utilization of asphalt heat energy in the frozen ground conditions A. Mäkiranta*, E. Hiltunen, University of Vaasa, Finland</p> | | WS1 | <p>[WS2.09] Biological methods for odor control-A review K. Barbusinski¹, D. Kasperczyk², K. Urbaniec*³, K. Kalemba², V. Kozik⁴, ¹Silesian University of Technology, Poland, ²Ekoinwentyka Ltd., Poland, ³Warsaw University of Technology, Poland, ⁴University of Silesia, Poland</p> | <p>[WS3.09] Local factors influencing PV diffusion A. Palm, Lund University, Sweden</p> | | | <p>Circular economy – A review of the concept and examples of emerging practices T.B. Christensen*, H. Hauggaard-Nielsen, Roskilde University, Denmark</p> |

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| 17:15-17:30 | <p>[O1.10] Gender approach for cleaner technologies transfer into micro, small and medium enterprises (MSMEs) and high priority industries P. Vasquez*, I. Restrepo, <i>University of Valle/Cinara Institute, Colombia</i></p> | | | <p>[O4.10] Embodied energy vs. operating energy in dwellings façade: A case study of Spain J. Sierra-Pérez^{1,2}, J. Boschmonart-Rives¹, X. Gabarrell*¹, S. Guillén-Lambeck^{2,3}, B. Rodríguez-Soria², ¹<i>Universitat Autònoma de Barcelona (UAB), Spain,</i> ²<i>Centro Universitario de la Defensa de Zaragoza, Spain,</i> ³<i>University of Zaragoza, Spain</i></p> | | WS1 | <p>[WS2.10] Utilizing agro-industrial residues with a low carbon content for bioplastic production C. Haas*, T. El-Najjar, L. Burgstaller, M. Smerilli, M. Neureiter, <i>University of Natural Resources and Life Sciences, Vienna (BOKU), Austria</i></p> | <p>[WS3.10] Do sustainable enterprises contribute to sustainable development in emerging markets? C. Martí-Ballester, <i>Universitat Autònoma de Barcelona, Spain</i></p> | | | <p>Conceptualising strategic environmental assessment for privatized strategic sectors A.R. Domingues*, A. Polido, <i>CENSE, Center for Environmental and Sustainability Research, Departamento de Ciências e Engenharia do Ambiente, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Portugal</i></p> |
| 17:30-18:30 | Welcome drinks & Poster viewing Auditorium Foyer and Tramuntana | | | | | | | | | | |

Monday 2nd November 2015

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| 07:00-07:45 | | | | | | | | | | | |
| Meditation | | | | | | | | | | | |
| Auditorium | | | | | | | | | | | |
| 08:00-08:45 | | | | | | | | | | | |
| K03: Our greatest sustainability problem is leadership that doesn't lead Karl-Henrik Robèrt, <i>Blekinge Institute of Technology, Sweden</i> | | | | | | | | | | | |
| Rooms | Auditorium | Garbi | Llevant 1 | Llevant 2 | Llevant 3 | Llevant 4 | Mestral 1 | Mestral 2 | Mestral 3 | Mestral 4 | |
| 08:50-09:20 | Workshop 5: Education for Sustainable Development Workshop | Session 7: Energy | Workshop 6: Remanufacturing, marketing and sustainable consumption | Session 8: Corporate Sustainability | Session 9: Supply Chain | Workshop 2: Bioeconomy Workshop | Workshop 9: Climate Smart Agriculture: Multi-disciplinary approaches now and in the future | Workshop 10: From Green Chemistry and Engineering to a Holistic Sustainable Chemical Industry | Workshop 11: The Financial sector and Environmental Sustainability solutions | Workshop 13: Wine Talks of Sustainability | TBC |
| 08:50-09:05 | [WS5.01] 50 Shades of green: An examination of sustainability policy on canadian campuses T. Wright* ¹ , P. Vaughter ² , Y. Herbert ³ , ¹ Dalhousie University, Canada, ² York University, Canada, ³ Sustainability Solutions Group, Canada | [O7.01] What are the determinants of renewable energy use in localities? The Japanese case K. Fujii* ¹ , H. Yamashita ¹ , T. Yoshimura ¹ , S. Okushima ² , ¹ Hitotsubashi University, Japan, ² University of Tsukuba, Japan | [WS6.01] Testing a conceptual model of circular clothing value chain with product reuse in Swedish contest M.K. Paras*, D. Ekwall, R. Pal, <i>University of Borås, Sweden</i> | [O8.01] The influence of corporate social responsibility practices on organizational performance: evidence from eco-responsible Spanish firms C. Reverte*, E. Gomez-Melero, J.G. Cegarra-Navarro, <i>Technical University of Cartagena, Spain</i> | [O9.01] Impact of sustainable supplier selection on the performance of service supply chains M. Hussain*, R. Al-Aomar, Abu Dhabi University, United Arab Emirates | [WS2.11] Future consumers' and industry experts' perceptions of sustainability within the forest industry S. Pätäri* ¹ , H. Arminen ¹ , A. Tuppurä ¹ , A. Toppinen ² , K. Puumalainen ¹ , T-L. Pekkanen ¹ , ¹ Lappeenranta University of Technology, Finland, ² University of Helsinki, Finland | [WS9.01] Advancing soil management in a changing climate: A recent UK experience K. Rial-Lovera*, W.P. Davies, N.D. Cannon, J.S. Conway, <i>The Royal Agricultural University, UK</i> | [WS10.01] Environmental assessment of chemical products from a Norwegian biorefinery I.S. Modahl*, A. Brekke, C. Valente, E. Soldal, <i>Ostfold Research, Norway</i> | [WS11.01] Multidimensional trade and sustainable growth: theory and evidence K-E. Edgeweblime, <i>Lome University/ Millenium University, Togo</i> | [WS13.01] Transformations of winegrowing systems beyond the audit: Guideline-based sustainability programs and their radical potential M. Sautier* ^{1,2} , K. Legun ² , H. Campbell ² , ¹ INRA, France, ² University of Otago, New Zealand | A voluntary tool on relational accessibility of natural parks M.B. Forleo ¹ , N. Palmieri* ² , ¹ University of Molise, Italy, ² University of Molise, Italy |

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| 09:05-09:20 | [WS5.02] What role can “the Arts” play in achieving the goals of education for sustainable development? T. Wright*, C. Kent, <i>Dalhousie University, Canada</i> | [O7.02] Geothermal use of abandoned, flooded mines - a review and preliminary case study of an old lead mine in Korsnäs, Finland J.B. Martinkauppi*, E. Hiltunen, <i>University of Vaasa, Finland</i> | [WS6.02] Towards sustainable consumption through remanufacturing activities: Some insights from a case study B. Jiménez-Parra* ¹ , S. Rubio ¹ , M.A. Vicente-Molina ² , ¹ Universidad de Extremadura, Spain, ² Universidad del País Vasco, Spain | [O8.02] Understanding corporate sustainability integration; a framework based on theory and practice S. Witjes*, W.J.V. Vermeulen, J.M. Cramer, <i>Utrecht University, The Netherlands</i> | [O9.02] Sustainable and green supply chain management: Literature review A. Rajeev*, R.K. Pati, S.S. Padhi, <i>Indian Institute of Management Kozhikode, India</i> | [WS2.12] Implementing the bioeconomy strategy: Challenges from a regional perspective A. Bezama* ¹ , A. Siebert ¹ , J. Hildebrandt ¹ , N. Szarka ² , S. O'Keeffe ¹ , D. Thrän ^{1,2} , ¹ Helmholtz Centre for Environmental Research, Germany, ² Deutsches Biomasseforschungszentrum, Germany | [WS9.02] Characterisation of technological innovations for climate smart agriculture in South Africa: Prospects and challenges for adoption M.P. Senyolo* ^{1,2} , T.B. Long ¹ , V. Blok ¹ , O. Omta ¹ , ¹ Wageningen University, The Netherlands, ² University of Limpopo, South Africa | [WS10.02] Process development for the production of a novel protein source P. Geerdink*, C. van den Berg, A. de Jong, P. Bussmann, <i>TNO, The Netherlands</i> | [WS11.02] Roadmap towards environmental sustainability: A case study of Nordic insurers L. Johannsdottir, <i>University of Iceland, Iceland</i> | [WS13.02] Carbon footprint management of the aggregated wine production process M. Marco-Fondevila*, E. Llera, S. Scarpellini, <i>University of Zaragoza, Spain</i> | Are critical raw materials really critical for sustainable production? Empirical evidence from manufacturer's perspective Y. Lapko* ^{1,2} , A. Trianni ¹ , C. Nuur ² , P. Trucco ¹ , A. Feldmann ² , ¹ Politecnico di Milano, Italy, ² KTH-Royal Institute of Technology, Sweden |
| Rooms | Auditorium | Garbi | Llevant 1 | Llevant 2 | Llevant 3 | Llevant 4 | Mestral 1 | Mestral 2 | Mestral 3 | Mestral 4 | |
| 09:20-09:50 | Workshop 5: (Continued) | Session 7: (Continued) | Workshop 6: (Continued) | Session 8: (Continued) | Session 9: (Continued) | Workshop 2: (Continued) | Workshop 9: (Continued) | Workshop 10: (Continued) | Workshop 11: (Continued) | Workshop 6: Remanufacturing, marketing and sustainable consumption (Continued) | New Workshop |
| 09:20-09:35 | [WS5.03] Sustainability assessment in higher education: first application and evaluation of AISHE 2.0 in Belgium | [O7.03] Sugar beets for biogas production? – a choice experiment approach S. Sauthoff*, F. Anastassiadis, O. | [WS6.03] Emerging business models in instrument reuse and remanufacturing: The case of the biotech | [O8.03] Organizational learning for cleaner technologies transfer into micro, small and medium enterprises (MSMEs) in | [O9.03] From sustainable design to sustainable implementation: Knowledge supply chains for a green economy | [WS2.13] Sustainability assessment of existing and emerging biowaste management systems - a Danish case study | [WS9.03] Methods to quantify GHG emissions to assess sustainability of cropping systems: A LCA perspective | [WS10.03] Strategic and preventative concept and approach of End of Life Tyre recycling via pyrolysis, for sustainable | [WS11.03] The degree of corporate social responsibility disclosure and its impact on banking performance: UAE Islamic versus | [WS6.05] Evaluating critical factors in the successful implementation of remanufacturing in Indian | Sustainability performance assessment of public sector organisations by external stakeholders: A participatory approach |

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| | W. Lambrechts ^{1,2} , S. Rymenams ^{*3} , ¹ University of Antwerp, Belgium, ² Research Foundation - Flanders (FWO), Belgium, ³ University Colleges Leuven-Limburg, Belgium | Musshoff, <i>Georg-August-University Goettingen, Germany</i> | industry in the U.S V.R. Veleva*, S. Gumjadi, <i>University of Massachusetts Boston, USA</i> | developing countries: An integrative framework P. Vasquez ^{*1} , I. Restrepo ¹ , A. Lauzon ² , ¹ University of Valle, Colombia, ² University of Guelph, Canada | T. Holm*, P. Vennervirta, E. Hämeenoja, N. Teirasvuori, <i>Syke Environmental School of Finland, Finland</i> | M. Thomsen*, M. Seghetta, M.H. Mikkelsen, M. Scotti, <i>Aarhus University, Denmark</i> | P. Goglio ^{*1} , W.N. Smith ¹ , B.B. Grant ¹ , R.L. Desjardins ¹ , X. Gao ² , K. Hanis ² , M. Tenuta ² , C.A. Campbell ¹ , B.G. McConkey ¹ , T. Nemecek ³ , ¹ Agriculture and Agri-Food, Canada, ² University of Manitoba, Canada, ³ Agroscope, Switzerland | implementation (The DEPOTEC LIFE+ project) A. Zabaniotou*, A. Oniszko-Poplawska, <i>Prague, Greece</i> | conventional banks H. Nobanee ^{1,2} , N. Ellili ^{*1} , ¹ Abu Dhabi University, United Arab Emirates, ² The University of Liverpool, UK | automotive firms K. Govindan ^{*1} , S. Luthra ² , S.K. Mangla ³ , ¹ University of Southern Denmark, Denmark, ² Government Polytechnic, India, ³ Indian Institute of Technology Roorkee, India | A.C. Mendes ¹ , A.R. Domingues ¹ , S. Caeiro ^{1,2} , N. Videira ¹ , P. Anunes ¹ , R. Santos ¹ , T.B. Ramos ^{*1} , ¹ Universidade Nova de Lisboa, Portugal, ² Universidade Aberta, Portugal |
| 09:35-09:50 | [WS5.04] An exploration of the pro-environmental awareness and behavior of various stakeholders on campus: An evidence in Tianjin, China L.P. Fu, Y. Zhang*, Y. Bai, <i>Tianjin University, China</i> | [O7.04] Comparative energy life cycle assessment model of multiple biomass briquetting R.I. Muazu*, A.L. Borrion, J.A. Stegemann, <i>University College London, UK</i> | [WS6.04] Green purchase in Austria and Lithuania: the Structural Equitation Modelling approach G. Liobikiene ^{*1,3} , S. Grinceviciene ¹ , V. Vaitkevicius ² , J. Grincevicius ¹ , A. Savickas ¹ , J. Bernatoniene ¹ , ¹ Lithuanian University of Health Sciences, Lithuania, | [O8.04] The role of contingency factors on the relationship between sustainability practices and organizational performance M. Maletic ^{*1} , D. Maletic ¹ , B. Gomiscek ² , ¹ University of Maribor, Slovenia, ² University of Wollongong in Dubai, United Arab Emirates | [O9.04] Information sharing in a sustainable supply chain with schemes for disposing defectives M. Khan, M. Hussain*, M.M. Malik, <i>Abu Dhabi University, United Arab Emirates</i> | | [WS9.04] Flouring Farmers: A systemic approach to climate smart agriculture transition T.B. Long*, V. Blok, K. Poldner, <i>Wageningen UR, The Netherlands</i> | [WS10.04] Improving the environmental profile of the enzymatic production of cellulose nanofibers by using sugarcane bagasse as feedstock A.M. Jiménez ^{*1} , Q. Tarrés ¹ , G. Arbat ¹ , J. Pujol ¹ , G. Quintana ³ , P. Fullana-i-Palmer ² , ¹ Universitat de Girona, Spain, | [WS11.04] Barriers to low-carbon innovation and consequences for finance in innovation studies literature F. Polzin, <i>Sustainable Business Institute (SBI), Germany</i> | [WS6.06] Material recovery and energy savings from c-Si PV panels end-of-life. Life Cycle Assessment of PV panels thermal treatment. F. Corcelli ¹ , M. Ripa ¹ , E. Leccisi ¹ , V. Cigolotti ² , V. Fiandra ² , M. Tammaro ² , L. Sannino ² , G. Graditi ² , S. Ulgiati ^{*1,3} , | Environmental assessment of EPS Bio-based alternatives in transportation packaging D. Mosna*, G. Vignali, <i>University of Parma, Italy</i> |

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| | | | ² Klaipeda University, Lithuania, ³ Vytautas Magnus University, Lithuania | | | | | ² Universitat Pompeu Fabra, Spain, ³ Universidad Pontificia Bolivariana, Colombia | | ¹ Parthenope University of Naples, Italy, ² ENEA, Italian National Agency for New Technologies, Energy and the Environment - Portici Research Centre, Naples, Italy, ³ Beijing Normal University, China | |
| 09:50-10:20 Refreshment Break I Auditorium Foyer | | | | | | | | | | | |
| Rooms | Auditorium | Garbi | Llevant 1 | Llevant 2 | Llevant 3 | Llevant 4 | Mestral 1 | Mestral 2 | Mestral 3 | Mestral 4 | |
| 10:20-10:50 | Workshop 5: (Continued) | Session 7: (Continued) | Workshop 7: Sustainability and Social Manufacturing | Session 8: (Continued) | Session 9: (Continued) | Workshop 8: Theory and Applications of Operations Research for Sustainability | Session 10: Agriculture and Food | Workshop 10: (Continued) | Workshop 11: (Continued) | Workshop 14: The business case of sustainability | TBC |
| 10:20-10:35 | [WS5.05] Introducing sustainability competences in engineering education through life cycle assessment J. Segalas* ¹ , O. Enfont ² , ¹ Universitat Politècnica de Catalunya, Spain, | [O7.05] Product passport-A tool towards sustainable resource use J.P. Jensen*, K. Skelton, Aalborg University, Denmark | [WS7.01] Lean application: Case Study on removing wastes of non-manufacturing process-order handling process G.Y. Xiong* ¹ , T.R. Nyberg ² , J. Gao ³ , G. Xiong ⁴ , | [O8.05] Values in sustainability problem framing T. Loskutova, University of Witwatersrand South Africa | [O9.05] The effects of supply chain position and institutional environment on corporate climate change strategies M. Damert*, R.J. Baumgartner, University of Graz, Austria | [WS8.01] Clean technology: Hype or a need to have ??? D.V.H.K. Franco, U Hasselt, Belgium | [O10.01] Corporate social responsibility reporting: the case of agri-food sector V. Sodano, University of Naples Federico II, Italy | [WS10.05] Delphi on the definition of chemical leasing I. Kaltenecker* ¹ , R. Lozano ² , ¹ JOANNEUM RESEARCH, Austria, ² Organisational Sustainability, UK, ³ Utrecht University, The Netherlands | [WS11.05] Financial incentives to promote citizen engagement and investment in sustainable development - Policy insights based on selected case studies | BROMAN AND ROBERT | Sustainability reporting and strategic aspects in oil & gas industry: The case of repsol D.A. Gallardo-Vázquez* ¹ , M.I. Sánchez-Hernández ¹ , F. Hourneaux Junior ^{2,3} , B. Galleli ³ , ¹ University of Extremadura, Spain, ² Nove de |

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| | ² REPSOL Oil Research S.A., Spain | | ¹ North Asia Region, ABB (China) Limited, China, ² Aalto University, Finland, ³ China United Engineering Cost Consultation CO, Ltd, China, ⁴ Aalto University, Finland | | | | | | C. McInerney* ¹ , J. Curtin ² , ¹ University College Cork, Ireland, ² Institute of International and European Affairs, Ireland | | Julho University, Brazil, ³ University of São Paulo, Brazil |
| 10:35-10:50 | [WS5.06] Universities and our common future: Exploring faculty conceptualizations of sustainability in higher education at the University of Limpopo (South Africa) T. Waas* ¹ , J. Hugé ^{1,2} , T. Wright ³ , M. Themane ⁴ , ¹ Ghent University, Belgium, ² Université Libre de Bruxelles, Belgium, ³ Dalhousie | [O7.06] Stochastic simulation of photovoltaic costs and deployment I.D. Mauleón, Universidad Rey Juan Carlos, Spain | [WS7.02] Transition to Social Manufacturing : Applications of Additive Manufacturing in consumer products B. Mohajeri*, T. Nyberg, Aalto University, Finland | [O8.06] Sustainability gains through inter-organizational collaborations in bio-based businesses: A systematic literature review G. Nuhoff-Isakhanyan*, E. Wubben, O. Omta, Wageningen UR, The Netherlands | [O9.06] Pushing carbon reduction along supply chains with consumers' willingness to pay consideration S.N. Sun* ¹ , X.P. Wang ¹ , Y. He ¹ , H.Y. Wang ¹ , J.X. Chen ² , ¹ South east University, China, ² Nantong University, China | [WS8.02] Multicriteria assessment of short life-cycle materials within the context of sustainable development and energy efficiency B. Mareschal ¹ , J.L. Tejera Oliver* ² , ³ Université Libre de Bruxelles, Belgium, ² Fundación Gómez Pardo, Spain, ³ Universidad Politécnica de Madrid, Spain | [O10.02] A new approach to the environment assessment and ecolabeling of the canning industry in the north of Spain J. Laso*, M. Margallo, R. Aldaco, A. Irabien, J. Celaya, University of Cantabria, Spain | [WS10.06] Chemical Leasing - How can a new business model provide more sustainability to chemical industry? I. Kaltenegger, J. J. Joanneum Research Forschungsgesellschaft mbH, Austria | [WS11.06] Mapping the governance network of climate finance policies in the Eurozone I. Monasterolo* ¹ , S. Battiston ² , ¹ Boston University, USA, ² University of Zurich, Switzerland | BROMAN AND ROBERT | Integrated multicriteria methodology for the sustainability and the prevention of energy vulnerability in the European households S. Scarpellini* ¹ , P. Rivera-Torres ² , I. Zabalza-Bribián ¹ , J.A. Aranda-Usón ² , T. Arciñega ² , ¹ CIRCE - University of Zaragoza, Spain, ² University of Zaragoza, Spain |

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| | University, Canada, ⁴ University of Limpopo, South Africa | | | | | | | | | | |
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| 10:50-12:20 | Workshop 5: (Continued) | Session 7: (Continued) | Workshop 7: (Continued) | Session 8: (Continued) | Session 9: (Continued) | Workshop 8: (Continued) | Session 10: (Continued) | Workshop 10: (Continued) | Session 12 | Workshop 14: (Continued) | New Workshop |
| 10:50-11:05 | [WS5.07] Transforming academic systems and life-long learning towards more sustainability by means of systemic structural constellations M.G. Arnold, <i>Univer sity of Oldenburg, Germany</i> | [O7.07] Analysing the greenhouse gas sensitivity of distribution networks F.K. Kellner, <i>Univer sity of Regensburg, Germany</i> | [WS7.03] Addressing the challenges of sustainable apparel industry with social manufacturing B. Mohajeri*, T. Nyberg, <i>Aalto University, Finland</i> | [O8.07] Interdepende ncy of project orientation and environmental behavior in organizations S. Marsina* ¹ , A. Hamranova ¹ , T. Hrivikova ¹ , F. Okruhlica ² , V. Bolek ¹ , ¹ Unive rsity of <i>Economics in Bratislava, Slovakia, ²Pan- European University, Slovakia</i> | [O9.07] Impact of additive manufacturing on supply chain management and sustainability M. Jin ^{1,2} , ¹ The <i>University of Tennessee, USA, ²Zhejiang Univeristy, China</i> | [WS8.03] A common strategy for harmonising environmenta l sustainability skills in European SMEs S.C.L. Koh* ¹ , L. Lazuras ² , T.B. Kalinowski ³ , A. Genovese ¹ , G. Bruno ⁴ , C. Piccolo ⁴ , G. Wieteska ³ , A. Rudnicka- Reichel ³ , J. Morris ¹ , A. Solomon ¹ , ¹ U niversity of <i>Sheffield, UK, ²South East European Research Centre, Greece, ³University of Lodz, Poland, ⁴University of Naples Federico II, Italy</i> | [O10.03] Environmenta l concerns in the global honey chain: evidence from Uruguay A. Malkamäki* ¹ , A. Toppinen ¹ , M. Kanninen ² , ¹ U niversity of <i>Helsinki, Finland, ²Viikki Tropical Resources Institute, 00014 University of Helsinki, Finland</i> | [WS10.07] Comparing industrial performance of oil refineries in OECD countries: De velopment of a normalised indicator of emissions performance for benzene releases from the refining process A. Carpenter, <i>Un iversity of Leeds, UK</i> | [O12.01] Assessing the degrowth discourse - From theory to policy I. Cosme* ¹ , R. Santos ¹ , D.W. O'Neill ² ³ , ¹ CENSE - <i>Center for Environmental and Sustainability Research, University NOVA of Lisbon, Portugal, ²University of Leeds, UK, ³Center for the Advancement of the Steady State Economy, USA</i> | BROMAN AND ROBERT | Floristic biomonitors and bioindicators of riparian vegetation as a tool for environmental management: Study in brazil's semiarid S.M.G. Pinheiro, A.M. Melo, R.A.J. Silva, A.E. Alves, S.G. El- Deir*, <i>UFRPE, Brazil</i> |

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| 11:05-11:20 | <p>[WS5.08] Greening the global classroom: Experiences using MOOCs to advance sustainability education J.L. Richter*, C. Leire, P. Arnfalk, K. McCormick, H. Rodhe, <i>IIIEE, Sweden</i></p> | <p>[O7.08] Green community energy in Lebanon: a new structure toward sustainable electricity S. Rakha*, A. Hourri, <i>Lebanese American University, Lebanon</i></p> | <p>[WS7.04] The least energy demand method as a tool for a unique evaluation and cross-assessment of the energy efficiency in the production S. Kreitlein*, F. Ultsch, M. Scholz, J. Franke, <i>Institute for Factory Automation and Production Systems Friedrich-Alexander-University of Erlangen-Nuremberg, Germany</i></p> | <p>[O8.08] Scaling up social businesses in developing markets N.M.P. Bocken*^{1,2}, A. Fil², J. Prahbu², ¹TU Delft, <i>Industrial Design Engineering, The Netherlands, University of Cambridge, UK</i></p> | <p>[O9.08] Freshwater resources and wood-energy supply chain design: Life cycle assessment versus water footprint assessment E. Melis*¹, P.F. Orrù¹, C. Pilo², G. Uras¹, ¹University of Cagliari, <i>Italy, Ente Foreste della Sardegna, Italy</i></p> | <p>[WS8.04] Education for sustainable development in policies and strategies of public Portuguese higher education institutions C. Farinha*¹, U. Azeiteiro^{1,2}, S. Caeio^{1,3}, ¹Universidade Aberta, <i>Portugal, University of Coimbra, Portugal, New University of Lisbon, Portugal</i></p> | <p>[O10.04] Overview and comparative assessment of Canada's volunteer 'Alternative land use services' programs for protecting and restoring the natural capital of agro-ecosystems J. Campbell, R. France*, K. Sherran, <i>Dalhousie University, Canada</i></p> | <p>[WS10.08] Lessons from Pfizer's green chemistry journey: Emerging drivers, barriers and opportunities for advancing a more sustainable pharmaceutical industry V.R. Veleva, <i>University of Massachusetts Boston, USA</i></p> | <p>[O12.02] Good or bad energy? - Market reactions to electric utilities' strategic investments A. Kuitunen*, I. Korpivaara, S. Patala, K. Puumalainen, A. Jalkala, <i>Lappeenranta University of Technology, Finland</i></p> | BROMAN AND ROBERT | <p>Changes in environmental attitudes among Norwegian consumers - Implications for consumption of materials and energy T. Tangeland*, G. Vittersø, <i>National Institute for Consumer Research (SIFO), Norway</i></p> |
| 11:20-11:35 | <p>[WS5.09] Building sustainable development with bottom-up initiatives: The role of schools, universities and local communities E.C. Ricci, <i>Università degli Studi di Milano, Italy</i></p> | <p>[O7.09] Speeding up power efficiency on household level - A comparative feedback approach I. Stieβ¹, M. Kunkis*¹, C. Fischer², ¹ISOE -Institute for Social-Ecological</p> | <p>[WS7.05] Social manufacturing : A novel view to contribute to sustainable development B. Mohajeri*, I. Kauranen, M. Hamalainen, <i>Aalto University, Finland</i></p> | <p>[O8.09] Environmental strategies in a developing economy: the role of managers' mind-set, firms' capabilities and institutional pressure in the adoption of a strategy</p> | <p>[O9.09] Life cycle assessment to measure the environmental sustainability of a leather shoes productive supply chain M. Germani, M. Marconi, E. Marilungo, A. Papetti*, <i>Università</i></p> | <p>[WS8.05] Assurance and sustainability of electric energy systems C. Lyra*¹, C. Cavellucci¹, J.F. Vizcaino², F.L. Usberti¹, ¹University of Campinas (UNICAMP), <i>Brazil,</i></p> | <p>[O10.05] The slaughter house industry in Egypt: The challenges and innovative cleaner production solutions-carbon footprint minimization pathways</p> | <p>[WS10.09] Atomically dispersed silver catalysts for formaldehyde oxidation Y. Chen*, Z. Huang, P. Hu, X. Tang, <i>Fudan University, China</i></p> | <p>[O12.03] Investigating resource efficiency, environmental tax and subsidy effect in an agent-based macro-economic framework (eurace) G. Fadiran*, M. Raberto, S. Cincotti, T.</p> | BROMAN AND ROBERT | <p>Decision making challenges and software solutions in automotive recycling C. Burger*, A. Pelken, M. Kalverkamp, <i>Carl von Ossietzky Universität Oldenburg, Germany</i></p> |

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| | | Research, Germany, ² Oeko Institut e.V., Germany | | C.E. Fuquene-Retamoso, Pontificia Universidad Javeriana, Colombia | Politecnica delle Marche, Italy | ² Universidade Estadual Paulista (UNESP), Brazil | Y. Askar* ¹ , D. Huising ¹ , A.A Raouf ¹ , ¹ Erasmus University Rotterdam, The Netherlands, ² University of TN, USA, ³ Basateen National Slaughterhouse, Egypt | | Flavio, University of Genoa, Italy | | |
| 11:35-11:50 | [WS5.10] A sustainability assessment system for university campus of Latin American L.P. Güereca* ¹ , D. Henao ² , A. Noyola ¹ , ¹ Universidad Nacional Autónoma de México. Coyoacán, 04510 Mexico City, Mexico, ² Universidad de Cartagena, Colombia | [O7.10] Communication strategy promoting energy-efficient refurbishment during the home purchasing process (“Guideline for home purchase”) M. Kunkis* ¹ , I. Stieß ¹ , J. Weiß ² , ¹ ISOE-Institute for Social-Ecological Research, Germany, ² Institute for Ecological Economy Research, Germany | [WS7.06] An analysis of energy consumption saving of machining workshop Q.Q. Zhong ¹ , R.Z. Tang* ¹ , M.Z. Jin ² , ¹ Zhejiang University, China, ² The University of Tennessee, USA | [O8.10] Eco-efficiency maturity assessment and improvement methodology in the apparel industry L. Litos* ¹ , D. Morgan ¹ , B. Johnston ² , R. Miltenburg ² , S. Evans ¹ , ¹ University of Cambridge, UK, ² Asics Europe B.V., The Netherlands | [O9.10] Sustainability performance in the supply chain: A study in the food supply chain in Italy V. León Bravo*, F. Caniato, M. Caridi, Politecnico di Milano, Italy | [WS8.06] Multiple criteria framework for the sustainability risk assessment of a supplier portfolio A. Torres*, A. Ravi Ravindran, The Pennsylvania State University, USA | [O10.06] LCA-type for environmental and economic analysis of technical innovation in protected crop growing M.T. Gorgitano, M. Pirilli*, University of Napoli Federico II, Italy | [WS10.10] In-situ Raman study of Ceria-based catalysts towards diesel soot combustion M. Fu* ^{1,2} , Z. Wu ¹ , X. Lin ¹ , D. Ye ^{1,2} , ¹ South China University of Technology, China, ² Guangdong Provincial Key Laboratory of Atmospheric Environment and Pollution Control, China, ³ Guangdong High Education Engineering Technology Research Center for Air | [O12.04] Exploring the impact of power-dynamics on sustainable value creation in a business ecosystem G. Brennan* ^{1,2} , M. Tennant ¹ , ¹ Imperial College London, UK, ² EPSRC Centre for Industrial Sustainability, UK | BROMAN AND ROBERT | Governance challenges and approaches to the circular economy J.A. de Bruijn, E.M. van Bueren, E.H.W.J. Cuppen*, Delft University of Technology, The Netherlands |

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| 11:50-12:05 | <p>[WS5.11] Development of students' sustainability knowledge, awareness and actions during university education</p> <p>K. Sammalisto*, A. Sundström, Z. Yao, <i>University of Gävle, Sweden</i></p> | <p>[O7.11] Energy choice, saving energy and risk perception</p> <p>M. Aoyagi, <i>National Institute for Environmental Studies, Japan</i></p> | <p>[WS7.07] Cost-benefit analysis of including prosumers in the power grid system</p> <p>A. Liu*¹, B. Mohajeri¹, E. Saarijarvi², ¹Aalto University, Finland, ²Tekla Corporation, Finland</p> | <p>[O8.11] Global sustainability megaforges in shaping the future of European pulp and paper industry: Results using a Delphi approach</p> <p>J. Korhonen*¹, S. Pätäri², A. Tuppurä², A. Toppinen¹, ¹University of Helsinki, Finland, ²Lappeenranta University of Technology, Finland</p> | <p>[O9.11] Opportunities for research in sustainability performance measurement in the food supply chain: A systematic literature review</p> <p>V. Leon Bravo*, F. Caniato, M. Caridi, <i>Politecnico di Milano, Italy</i></p> | <p>[WS8.07] Priority assessment of the Hyogo framework for action (HFA): A case study of Nigeria</p> <p>C.N. Madu*^{1,2}, C-H. Kuei², I.E. Madu², H.I. Eze¹, U. Odionokigbo¹, I. Ezeasor¹, E. Ogbuene¹, J. Ewoh¹, V. Nnadi¹, B.C. Ozumba¹, ¹University of Nigeria, Nigeria, ²Pace University, USA</p> | <p>[O10.07] Utilization of agro-industrial and urban waste as fuel in Microbial Fuel Cells (MFCs)</p> <p>R.A. Nastro*¹, G. Falcucci¹, M. Minutillo¹, M. Trifuoggi¹, M. Guida¹, C. Avignone-Rossa², S. Dumontet¹, E. Jannelli¹, S. Ulgiati¹, ¹University of Naples, Italy, ²University of Surrey, UK</p> | <p>[WS10.11] Catalytic oxidation of soot over CeO₂-MnO_x: solid solution and activity correlation</p> <p>M.L. Fu*^{1,2}, Z. Wu¹, X.T. Lin¹, H. He¹, J.M. Lin¹, D.Q. Ye^{1,2}, ¹South China University of Technology, China, ²Guangdong Provincial Key Laboratory of Atmospheric Environment and Pollution Control, China, ³Guangdong High Education Engineering Technology Research Center for Air Pollution Control, China</p> | <p>[O12.05] Not just economics: Revisiting stakeholder engagement via a longitudinal study of S&P500 firms</p> <p>P. Ritala*¹, L. Albareda², P. Huotari¹, K. Puumalainen¹, ¹Lappeenranta University of Technology, Finland, ²Deusto University, Spain</p> | <p>BROMAN AND ROBERT</p> | <p>A game theoretic approach on designing software quality for environmental sustainability</p> <p>S.A. Kocak*¹, F. Firouzi¹, G.I. Alptekin², A.B. Bener¹, ¹Ryerson University, Canada, ²Galatasaray University, Turkey</p> |

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| 12:05-12:20 | <p>[WS5.12] A theoretical holistic self-assessment framework for sustainability of universities G. Arcese*, L. Di Pietro, R. Guglielmetti Mugion, M.C. Lucchetti, M.F. Renzi, <i>University of Roma Tre, Italy</i></p> | <p>[O7.12] Behavioral patterns of individual energy use in public buildings C. Reischl*, S. Hatzl, E. Fleiß, S. Seebauer, A. Posch, <i>University of Graz - Institute of Systems Sciences, Innovation and Sustainability Research, Austria</i></p> | <p>[WS7.08] Social manufacturing : When mass customization meets the maker movement M. Hamalainen*, T. Nyberg, <i>Aalto University, Finland</i></p> | <p>[O8.12] Sustainable development and corporate social responsibility: An Indian scenario M. Sharma, <i>Central University of Jammu, India</i></p> | <p>[O9.12] Integrated hybrid lifecycle assessment and supply chain environmental profile evaluations of solid state perovskite solar cells I. Mohammed*¹, S.C.L Koh¹, I.M. Reaney¹, A. Acquaye^{1,2}, G. Schileo¹, R. Greenough³, ¹University of Sheffield, UK, ²University of Kent, UK, ³De Montfort University, UK</p> | <p>[WS8.08] The Management of Greenhouse Gas Emission and its Effects on Firm Performances M. Gastaldi*¹, F. Cucchiella¹, M. Miliacca², ¹University of L'Aquila, Italy, ²University of Rome "Tor Vergata", Italy</p> | <p>[O10.08] Lignocellulose -containing materials efficiently provide carbon for the composting process of broiler industry residues M.S.S.M. Costa*, F.H. Bernardi, L.A.M. Costa, D.C. Pereira, L.J. Carneiro, H.D.F. Lorin, <i>Western Parana State University, Brazil</i></p> | <p>[WS10.12] Characterization of highly dispersed MnO_x/SAPO-34 catalyst for low-temperature SCR of NO with NH₃ C.L. Yu*¹, B.C. Huang¹, ¹School of Environment and Energy, South China University of Technology, China, ²Key Lab of Pollution Control and Ecosystem Restoration in Industry Clusters, Ministry of Education, South China University of Technology, China</p> | <p>[O12.06] Understanding the hidden cost and identifying the root causes of changeover impacts Z.E. Gungor*, S. Evans, <i>University of Cambridge, UK</i></p> | BROMAN AND ROBERT | <p>From excess to access: The role of sharing economy Y. Voytenko*, O. Mont, P. Dlugosz, <i>Lund University, Sweden</i></p> |
| 12:20-13:20 | Lunch Break | | | | | | | | | | |
| 13:20-14:05 | K04: Hans Schnitzer I Auditorium | | | | | | | | | | |
| Rooms | <i>Auditorium</i> | <i>Garbi</i> | <i>Llevant 1</i> | <i>Llevant 2</i> | <i>Llevant 3</i> | <i>Llevant 4</i> | <i>Mestral 1</i> | <i>Mestral 2</i> | <i>Mestral 3</i> | <i>Mestral 4</i> | |
| 14:10-15:10 | Workshop 5: (Continued) | Session 7: (Continued) | Workshop 7: (Continued) | Session 8: (Continued) | Session 9: (Continued) | Workshop 8: (Continued) | Session 10: (Continued) | Session 11 | Workshop 12: Cleaner production in China: 20 years' experience and visions | Workshop 15: EMAN workshop | New Workshop |

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| 14:10-14:25 | <p>[WS5.13] Human factors in current approaches for integrating sustainable development in higher education E. Verhulst*¹, W. Lambrechts², ¹Norwegian University of Science and Technology, Norway, ²University Colleges Leuven-Limburg, Belgium</p> | <p>[O7.13] Development of a global energy management system for the life sciences industry : an energy management maturity model implementation N. Finnerty*^{1,2}, D. Coakley¹, M. Keane¹, R. Sterling¹, ¹National University of Ireland, Ireland, ²Boston Scientific Corporation, USA</p> | <p>[WS7.09] Social manufacturing : What it is and what it could be M. Hamalainen*, T. Nyberg, <i>Aalto University, Finland</i></p> | <p>[O8.13] Evaluation of effective strategies for the expansion of the green sector at regional levels: Assessment methodology in a case study E. Llera*^{1,2}, M. Marco¹, S. Scarpellini^{1,2}, J. Aranda¹, A. Aranda-Usón², ¹CIRCE, Spain, ²University of Zaragoza, Spain</p> | <p>[O9.13] Lessons learned from the Serbian cleaner production implementation M. Jovanovic*, R. Pesic, <i>University of Belgrade, Serbia</i></p> | <p>[WS8.09] Optimization-oriented Material and Energy Flow Analysis of a Metallurgic Production Process H. Lambrecht*¹, H. Hottenroth¹, T. Schröer², F. Schulenburg², ¹Pforzheim University, Germany, ²H.C. Starck GmbH, Germany</p> | <p>[O10.09] Upcycling poultry co-streams: results emerging from the bioeconomic frontier H. Egelyng¹, S. Adler², E. Bar*³, H.O. Hansen¹, ¹University of Copenhagen, Denmark, ²Bioforsk, Norway, ³SINTEF Fisheries and Aquaculture, Norway</p> | <p>[O11.01] Status of life cycle assessment and management in achieving environmental sustainability M.A. Curran, <i>BAMA C, Ltd., USA</i></p> | <p>[WS12.01] From cleaner production to circular economy: more economic and feasible technology innovation of the whole chain H. Li*, Q. Li, X. Guan, <i>Institute of Process Engineering, Chinese Academy of Sciences, China</i></p> | <p>[WS15.01] Bioindicator for environmental management in environments island: Mangrove study Fernando de Noronha archipelago (Brazil) A.M. Melo, R.A.J. Silva, A.E. Alves, S.M.G. Pinheiro, S.G. El-Deir*, <i>UFRPE, Brazil</i></p> | <p>Using the multilevel design model to increase sustainability in the Province of Friesland T. Gorter¹, A. Börü^{1,3}, U. Obinna*^{1,3}, A. Singh^{1,3}, S. Çelik^{1,3}, J. Stelpstra^{1,2}, P. Joore^{1,3}, ¹NHL University of Applied Sciences, The Netherlands, ²Rijksuniversiteit Groningen, The Netherlands, ³Delft University of Technology, The Netherlands</p> |
| 14:25-14:40 | <p>[WS5.14] Teaching life cycle thinking to agronomists: Didactical problems and opportunities for their curriculum A.K. Cerutti*^{1,2}, D. Padovan¹, D. Donno¹, G.M. Mellano¹, G.L. Beccaro¹, ¹University of</p> | <p>[O7.14] Is clean energy always sustainable? Exploring growth rates of technology, raw materials, and production capacity S. Davidsson*, M. Höök, <i>Uppsala University, Sweden</i></p> | <p>[WS7.10] Relevancy of Institutional Social Manufacturing in High-end Fashion Apparel Industry: Evidence From the Paris Fashion Week J.H.E. Karjalainen, <i>Aalto University, Finland</i></p> | <p>[O8.14] Improving the corporate sustainable development in hotels: using an interdependence hierarchical framework M.L. Tseng*, M. Lim, A. Chiu, <i>Lunghwa University of Science and Technology, Taiwan</i></p> | <p>[O9.14] Moves towards more sustainable production using 'leagile' principles P. Nieuwenhuis, <i>Cardiff University, UK</i></p> | <p>[WS8.10] Determinants of social discount rate for power plant project assessment A.J. Chua*, W.W. Choong, <i>Universiti Teknologi Malaysia, Malaysia</i></p> | <p>[O10.10] Agro-food MNCs in Africa, a chance for human development? examples and scientific challenges C. Macombe*¹, D. Loeillet¹, ¹IRSTEA, France, ²CIRAD, France</p> | <p>[O11.02] An improved social life cycle assessment methodology: The case study of a kitchen sink M. Germani, F. Gregori*, A. Luzi, M. Mengarelli, <i>Università Politecnica delle Marche, Italy</i></p> | <p>[WS12.02] Reducing carbon emissions through cleaner production technology: a case study of an enterprise that produces large amounts of biomass waste X. Meng*¹, Z. Wen¹, H. Yu², ¹Tsinghua University, China, ²Nankai University, China</p> | <p>[WS15.02] Triple bottom line accounting for optimizing a natural gas sustainable supply chain: A statistical linear programming approach for bootleggers, beings and biologists</p> | <p>Alkali-resistant mechanism of a hollandite deNOx catalyst P.P. Hu*, Z.W. Huang, J.Y. Gao, Y. Wang, Y.X. Chen, X.F. Tang, <i>Fudan University, China</i></p> |

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| | Turin, Italy, ² Interdisciplinary Research Institute of Sustainability, Italy | | | | | | | | | J. Rodger, IUP, USA | |
| 14:40-14:55 | [WS5.15] Sustainability reporting in higher education: Interconnecting the reporting process and organisational change management for sustainability K. Ceulemans* ¹ , R. Lozano ² , M. Alonso-Almeida ³ , ¹ KU Leuven - University of Leuven, Belgium, ² Utrecht University, The Netherlands, ³ Autonomous University of Madrid, Spain | [O7.15] A holistic view on cloud computing and energy consumption - Outcomes and experiences of using participatory system mapping with researchers, policy makers and companies M. Sedlacko ¹ , A. Martinuzzi* ² , K. Dobernig ² , ¹ University of Applied Sciences FH Campus Wien, Austria, ² WU Vienna University of Economics and Business, Austria | [WS7.11] Socioeconomic and ecological carbon metabolism in Jing-Jin-Ji metropolitan area: A LCA-based element flow analysis perspective F-X. Meng* ¹ , G-Y. Liu ¹ , Z-F. Yang ¹ , S. Ulgiati ^{1,2} , ¹ Beijing Normal University, China, ² Parthenope University of Naples, Italy | [O8.15] Factors influencing companies to withdraw or renew EMAS registration in Italy: An in-depth statistical analysis M. Preziosi*, R. Merli, Roma Tre University, Italy | [O9.15] Empirical approaches to development and sharing of eco-efficiency best-practice within multi-site manufacturing configurations L. Litos* ¹ , P. Lunt ² , S. Hope ³ , S. Evans ¹ , ¹ University of Cambridge, UK, ² Airbus Operations Ltd., UK, ³ Toyota Motor Europe, Belgium | [WS8.11] Urban metabolism evaluation for independent system of macao from 2003 to 2013 L. Kampeng ^{2,1} , L. Lu* ¹ , L. Inchio ^{1,2} , ¹ The university of Macao, China, ² Macau Science and Technology Association, China | [O10.11] Food cycling for planet earth - Towards total utilisation of rest raw materials in Norway M. Aursand* ¹ , H. Egelyng ² , A. Løes ³ , E. Misimi ¹ , R. Lantto ⁴ , O. Strandhagen ⁵ , G. Vittersø ¹ , ¹ SIN TEF Fishery and aquaculture, Norway, ² University of Copenhagen, Denmark, ³ Bioforsk, Norway, ⁴ VTT, Finland, ⁵ NTNU, Norway, ⁶ SIFO, Norway | [O11.03] Assessment of woody biomass life cycle by an ecological footprint-like index M. Ooba*, T. Fujita, M. Fujii, T. Togawa, National Institute for Environmental Studies, Japan | [WS12.03] Industrial cleaner production: China overview and perspective L. Shi*, X. Li, L. Ma, Tsinghua University, China | Improving the Sustainability of Supply Chains in Fashion Industry: The Role of Social Manufacturing and Business Intelligence E.I. Elina Ilén* ¹ , J.K. Jesse Karjalainen ² , T.N. Timo Nyberg ² , ¹ Planno Oy, Finland, ² Aalto University, Finland | |
| 14:55-15:10 | [WS5.16] Sustainability reporting in higher education and | [O7.16] Learning the lessons from a regional industrial | [WS7.12] Worse than imagined: The unidentified virtual | [O8.16] Leading by example in encouraging sustainability | [O9.16] Mathematical optimization tools in the service of | [WS8.12] The impact of green buildings accreditation | [O10.12] Life cycle engineering of production, use and | [O11.04] Assessing the environmental benefits of industrial | [WS12.04] A study of heavy-metal-containing wastewater source reduction | | Catalytic activity and stability of hierarchical Fe-ZSM-11 catalysts for N2O |

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| | organisational change potential: A case study in the University of British Columbia K. Ceulemans* ¹ , C. Scarff Seatter ² , I. Molderez ¹ , L. Van Liedekerke ¹ , ³ , ¹ KU Leuven - University of Leuven, Belgium, ² University of British Columbia, Canada, ³ University of Antwerp, Belgium | energy efficiency initiative R. Allarton* ¹ , G. Locatelli ² , ¹ University of Lincoln, UK, ² University of Leeds, UK | water flow in China B-M. Cai*, B. Zhang, <i>Nanjing University, China</i> | in the workplace: The role of institutional support and leadership behaviour in enhancing pro-environmental behaviour J. Ringersma*, V. Blok, R. Wesselink, <i>Wageningen University, The Netherlands</i> | cleaner production M.J. Fernández-Torres*, R. Ruiz-Femenia, J.A. Caballero, <i>University of Alicante, Spain</i> | on construction and demolition waste minimization: A study of Hong Kong building environment assessment method using big data X. Chen*, W.S. Lu, H.D. Wang, <i>The University of Hong Kong, Hong Kong</i> | recovery of self-chilling beverage cans N. Arena, R. Clift, J. Lee*, <i>University of Surrey, UK</i> | symbolism through LCA: The case of leather products T. Daddi* ¹ , B. Nucci ¹ , F. Iraldo ^{1,2} , F. Testa ¹ , ¹ S. Anna School of Advanced Studies, Italy, ² Bocconi University, Italy | technology for cellhouse of electrolytic zinc industry J.H. Li ¹ , H.H. Zhou ² , L.H. Jiang* ¹ , F.Y. Xu ¹ , C. Zhou ¹ , Z.H. Sun ¹ , G.M. Han ¹ , N. Duan ¹ , ¹ Chinese Research Academy of Environmental Sciences, China, ² Anhui University of Science and Technology, China | | decomposition in the presence of H2O P.F. Xie* ¹ , Z. Ma ² , W.M. Hua ¹ , ¹ Department of Chemistry, Fudan University, China, ² Department of Environmental Science and Engineering, Fudan University, China |
| 15:10-15:40 | Refreshment Break | | | | | | | | | | |
| Rooms | Auditorium | Garbi | Llevant 1 | Llevant 2 | Llevant 3 | Llevant 4 | Mestral 1 | Mestral 2 | Mestral 3 | Mestral 4 | |
| 15:45-18:00 | Workshop 5: (Continued) | Session 7: (Continued) | Workshop 7: (Continued) | Session 8: (Continued) | Session 9: (Continued) | Workshop 8: (Continued) | Session 10: (Continued) | Session 11: (Continued) | Workshop 12: (Continued) | Workshop 15: (Continued) | New Workshop |
| 15:45-16:00 | [WS5.17] Embedding sustainability competences in engineering education by the cradle to cradle methodology J. Segalas*, J.J. Aliau, <i>Universitat Politècnica</i> | [O7.17] Actions for better ecological status at small scale hydropower plants - ecosystem service assessment | [WS7.13] Application of life cycle engineering in technology selection: A case study on conformal cooling channels production in | [O8.17] Replacing subsidies by intelligence - design, implementation and impacts of publicly funded consulting programs for | [O9.17] Development of an algorithm for a set-up process analysis: A proposal of a sus-smed method D. Stadnicka, <i>Rzeszow</i> | [WS8.13] On the road to a resource efficient Europe: Insights from applications of a global simulation model M. Meyer*, M. Distelkamp, G. | [O10.13] Formulating common understanding ground on beverage container deposit-refund systems in Europe | [O11.05] Inter-organizational collaborations for sustainability in agro-industrial parks G. Nuhoff-Isakhanyan*, E. Wubben, O. | [WS12.05] An objective indices based cleaner production technology determining method and its application at national and industrial sector levels | WeValue Workshop – from values to indicators (2 hrs). | Values-based management - A stronger option with new indicators that can measure its effectiveness M.K. Harder* ^{1,3} , G. Burford ¹ , L.M. Stapleton ¹ , D. Podger ¹ , I. Velasco ¹ , S. |

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| | <i>de Catalunya, Spain</i> | S. Tellström*, E. Grönlund, M. Fröling, <i>Mid Sweden University, Sweden</i> | injection moulds A. Raposo, I. Ribeiro*, P. Peças, E. Henriques, <i>Universidade de Lisboa, Portugal</i> | corporate sustainability A. Martinuzzi*, F. Findler, <i>WU Vienna University of Economics and Business, Austria</i> | <i>University of Technology, Poland</i> | Ahlert, GWS (<i>Gesellschaft fuer Wirtschaftliche Strukturforschung mbH</i>), <i>Germany</i> | D.N. Numata* ¹ , T.L. Lindhqvist ² , N.T. Tojo ² , ¹ <i>Fukushima University, Japan</i> , ² <i>Lund University, Sweden</i> | Omta, S. Pascucci, <i>Wageningen UR, The Netherlands</i> | P.L. Zhang ¹ , Z.Z. Wang ² , Z.G. Dan* ² , F.F. Shi ² , H.Y. Zhang ² , N. Duan ² , ¹ <i>Tsinghua University, China</i> , ² <i>Chinese Research Academy of Environmental Sciences, China</i> | | Janoušková ² , M. Zahradník ² , E. Hoover ¹ , ¹ <i>University of Brighton, UK</i> , ² <i>Charles University Environment Center, Czech Republic</i> , ³ <i>Fudan University, China</i> |
| 16:00-16:15 | [WS5.18] Evolution and progression of education for sustainable development programmes in Ireland: From the kindergarten to the operating theatre Y. Ryan-Fogarty*, B. O'Regan, <i>University of Limerick, Ireland</i> | [O7.18] The green economy zeitgeist and environmental conflicts - the political ecology of germany's energy transition G.W. Weber, <i>Essca Angers, France</i> | [WS7.14] Improvement on environmental pollution in latex processing factory via membrane filtration M.Y. Khairul Muis* ¹ , A.S. Maizatul Putri ¹ , V. Veellu ¹ , A. Asis ¹ , A.M. Kheireddine ² , N.S. Nik Meriam ² , ¹ <i>Sim e Darby Research Sdn. Bhd., Malaysia</i> , ² <i>University of Malaya, Malaysia</i> | [O8.18] Competences for sustainable development needed by industry: Aspirations and reality E. Katiliute*, J.K. Staniškis, <i>Kaunas University of Technology, Lithuania</i> | [O9.18] Energy, water and footprints interactions: Implications for the european and worldwide industry, service and civic sectors and agriculture J.J. Kleměš* ¹ , P.S. Varbanov ¹ , A. Mészáros ² , X. Liu ³ , ¹ <i>University of Pannonia, Hungary</i> , ² <i>Slovak University of Technology in Bratislava, Slovakia</i> , ³ <i>South China University of Technology, China</i> | [WS8.14] An optimization model for the planning of the supply chain management in the mining industry E. Santibañez-González* ¹ , C. Vergara ¹ , L. Canales ¹ , B. Pimentel ² , A. Candia-Véjar ¹ , ¹ <i>Universidad de Talca, Chile</i> , ² <i>Vale do Rio Doce, Brazil</i> | [O10.14] Sustainable catering service: social empowerment and waste management integrated within an Italian rehabilitation facility N. Moreira* ¹ , T. Wood-Harper ¹ , S. Sousa ² , ¹ <i>University of Manchester, UK</i> , ² <i>University of Passo Fundo, Brazil</i> | [O11.06] Polycentric governance in eco-industrial networks S. Patala* ¹ , S. Hämäläinen ² , M. Oinonen ¹ , A. Salmi ¹ , ¹ <i>Lappeenranta University of Technology, Finland</i> , ² <i>University of Jyväskylä, Finland</i> | [WS12.06] Amended Life Cycle Assessment on Co-Benefits of Recycling Organic Wastes for Practice Y. Qi* ¹ , X.D. Chen ² , W. Wang ³ , ¹ <i>Nankai University, China</i> , ² <i>Dalian Dongtai Industrial Waste Treatment Co., Ltd., China</i> , ³ <i>Tianjin University of Technology, China</i> | WeValue Workshop – from values to indicators (2 hrs). | Recycling of Construction and Demolition Waste (CDW) Towards Sustainable Beneficial Outcomes A.E. Emmanuel*, A.O. Clinton, <i>University of Johannesburg, South Africa</i> |
| 16:15-16:30 | [WS5.19] Embedding | [O7.19] A systemic | [WS7.15] Indoor | [O8.19] Competencies | [O9.19] Organic and | [WS8.15] Eco-efficiency | [O10.15] Flexible ethics | [O11.07] Industrial | [WS12.07] Retrospective | WeValue Workshop – | Research on the sustainable |

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| | <p>education for sustainable development in healthcare: Opportunities for long range environmental impact mitigation from the maternity service to the home</p> <p>Y. Ryan-Fogarty*¹, B. O'Regan¹, R. Moles¹, G. Becker¹, ¹University of Limerick, Ireland, ²BEST Services, Galway, Ireland</p> | <p>approach to energy management and use in non-residential buildings in Norway</p> <p>E. Verhulst*, I.N. Pettersen, R. Valle, Norwegian University of Science and Technology, Norway</p> | <p>positioning system in sustainable manufacturing</p> <p>A. Mehtälä¹, A. Ryu*², ¹Nokia, Finland, ²Aalto University, Finland</p> | <p>framework to shift to a more sustainable industrial system</p> <p>L.D. Fernando*, S. Evans, University of Cambridge, UK</p> | <p>inorganic trace pollutants in mosques carpet-dust of Riyadh, Saudi Arabia</p> <p>A.H. El-Mubarak*, A.I. Rushdi, K.F. Al-Mutlaq, F.Z. Al-Mdawi, K.A. Al-Hazmi, R.S. Dumenden, R.A. Pascua, King Saud University, Saudi Arabia</p> | <p>assessment of the Chilean fruit and vegetable production with the joint use of life cycle assessment and data envelopment analysis</p> <p>L. Angulo Meza*¹, M.C. Gonzalez-Araya², A. Iriarte², R. Rebolledo², ¹Universidad Federal Fluminense, Brazil, ²Universidad de Talca, Chile</p> | <p>across space and place: a study of tourist food consumption</p> <p>J. Lazell*, C. Bosangit, M. Carrigan, Coventry University, UK</p> | <p>ecology in nitrogen fertilizer production: Reducing dependency on fossil fuel supply by increasing resource efficiency</p> <p>J.K. Staniškis*, I. Kliopova, M. Malinauskiene, Kaunas University of Technology, Lithuania</p> | <p>analysis of cleaner production construction of Shandong province in China</p> <p>Y. Liu, F. Han, Q.C. Ma, Y. Li, Z.J. Cui*, Shandong University, China</p> | <p>from values to indicators (2 hrs).</p> | <p>operations and management of supply chain firms'intellectual property rights - Based on the empirical analysis of chinese firms</p> <p>L. Jieming, T. Mengjin, L. Shishi*, Wuhan University of Technology, China</p> |
| 16:30-16:45 | <p>[WS5.20] An organisational model on the core components of embedding education for sustainable development within higher education</p> <p>G. Cebrián^{1,2}, ¹Camilo José Cela University, Spain, ²Universidad Internacional</p> | <p>[O7.20] Dark skies: A comparative discussion of projects to reduce light pollution and preserve darkness in jurisdictions in West Virginia (USA) , Fryslan province and Texel Island (The Netherlands)</p> <p>C.A. Wilt¹, H. Brezet*², I.</p> | <p>[WS7.16] Sustainability in open social manufacturing systems</p> <p>F. Cerdas*, M. Juraschek, G. Posselt, S. Thiede, C. Herrmann, Technische Universität Braunschweig, Germany</p> | <p>[O8.20] Engineers' perceptions of 'green' in the changes towards sustainability in China</p> <p>C. Zhou*¹, H. Chen², J. Zhou², ¹Aalborg University, Denmark, ²Northeastern University, China</p> | <p>[O9.20] Development and characterization of biomass briquettes for iron ore reduction</p> <p>G.R. Byamugisha*, J.K. Byaruhanga, B. Kariko-Buhwezi, Makerere University, Uganda</p> | <p>[WS8.16] Sustainability: A tool of supply chain risk management?</p> <p>G. Zilahy, Corvinus University of Budapest, Hungary</p> | <p>[O10.16] Vulnerability matrix of the food system: addressing food security and sustainability</p> <p>A. Paloviita*, A. Puupponen, T. Kortetmäki, T. Silvasti, University of Jyväskylä, Finland</p> | <p>[O11.08] Industrial symbiosis solutions for recycling of biosludge from the pulp industry</p> <p>R. Norgren*, M. Fröling, O. Björkqvist, Mälardalen University, Sweden</p> | <p>[WS12.08] Cleaner production research in China: a comprehensive review</p> <p>Y.T. Wang, Shandong University, China</p> | <p>WeValue Workshop – from values to indicators (2 hrs).</p> | <p>Hope for a celestial city - A triptych</p> <p>M. Casazza*¹, C. Ferrari¹, G. Liu¹, S. Ulgiati¹, ¹University 'Parthenope' of Naples, Italy, ²Hebei Normal University, China, ³Beijing Normal University, China, ⁴Beijing Engineering Research Center for Watershed Environmental Restoration &</p> |

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| | <i>de la Rioja, Spain</i> | Dijkstra ³ , ¹ University of Tennessee-Knoxville, USA, ² Delft University of Technology, The Netherlands, ³ Bureau Licht & Kleur Rotterdam, The Netherlands | | | | | | | | | <i>Integrated Ecological Regulation, China</i> |
| 16:45-17:00 | [WS5.21] Continue making sustainable development the golden thread throughout all levels of education K. Sammalisto ^{1,2} , ¹ Essential Maintenance Service Unit (EMSU), USA, ² The Environmental Association for Universities and Colleges, USA | [O7.21] An optimal design framework for distributed energy system corresponding to regional characteristics: Decarbonizing planning system for Fukushima revitalization T. Togawa*, M.O. Makoto, M. Fujii, T. Fujita, <i>National Institute for Environmental Studies, Japan</i> | [WS7.17] Human centric and socially sustainable Manufacturing: Challenges, stakeholder views and research gaps M. Pinzone*, P. Fantini, M. Taisch, <i>Politecnico di Milano, Italy</i> | [O8.21] Sustainable production adoption by surface treatment SMEs: Challenges and enablers C. Alayón* ¹ , A. Sannö ² , K. Säfsten ¹ , G. Johansson ¹ , ¹ Jönköping University, Sweden, ² Mälardalen University, Sweden | [O9.21] Technologies in the frame of Degrowth - Recent debates and new visions L. Nierling* ¹ , M-H. Ehlers ² , C. Kerschner ³ , P. Wächter ⁴ , ¹ Karlsruhe Institute of Technology, Germany, ² James Hutton Institute, UK, ³ Masaryk University, Czech Republic, ⁴ University of Vienna, Austria | [WS8.17] What is resilience? Presenting a conceptual framework combined with an analysis of the iberian countries D.M. Conti*, A.J.H. Guevara, L.F. Silva, <i>PUC - SP, Brazil</i> | [O10.17] Decreasing greenhouse gas emissions of meat products through food waste reduction - Framework for a sustainability assessment approach T. Winkler*, R. Aschemann, <i>University of Graz, Austria</i> | [O11.09] What explains the decrease of EMAS registrations at the European level? T. Daddi* ¹ , M.R. De Giacomo ¹ , M. Frey ¹ , F. Irlando ¹ , ¹ S. Anna School of Advanced Studies, Italy, ² Bocconi University, Italy | [WS12.09] The evolution of cities: "brains" or "parasites" of sustainable production and consumption processes in China X.Y. Liu ¹ , G.Y. Liu* ¹ , F.X. Meng ¹ , S. Ulgiati ^{1,2} , ¹ Beijing Normal University, China, ² Parthenope University of Naples, Italy | WeValue Workshop – from values to indicators (2 hrs). | The importance of appropriate interaction with stakeholders towards environmentally sensitive policies C. Vassillo* ¹ , C. Hornsby ¹ , M. Ripa ¹ , S. Ulgiati ¹ , ¹ Parthenope University of Napoli, Italy, ² RWTH Aachen University, Germany |
| 17:00-17:15 | [WS5.22] The role of transdisciplinarity in | [O7.22] The design of distribution of carbon | [WS7.18] Energy efficiency in the | [O8.22] Corporate sustainability index in | [O9.22] Food preservation by evaporative cooling in | [WS8.18] Global risks and resilience | [O10.18] Food leftovers in canteens-determinants | [O11.10] Paradoxes of EMAS performance: | [WS12.10] Where does cement go?-an analysis of | WeValue Workshop – from values to | How flexible institutions fostered anomalous |

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| | <p>engineering education for sustainability J. Segalas*, G. Tejedor, M. Rosas, <i>Universitat Politècnica de Catalunya, Spain</i></p> | <p>emission rights in the area of Qinba mountains, China L. Xu, K. Wang*, <i>Beijing Normal University, China</i></p> | <p>petrochemical industry in China: Lessons for future improvements N. Masroori, <i>Fudan University, China</i></p> | <p>Portugal: A systemic concept M.R. Partidario*^{1,2}, J. Lima¹, <i>¹Instituto Superior Tecnico, Portugal, ²CEG-IST, Portugal</i></p> | <p>developing countries and the challenges of energy sustainability I.U. Hussaini*¹, N.H. Abdul Majid², A.Z. Jibril¹, S.K. Ibrahim¹, <i>¹Abubakar Tafawa Balewa University Bauchi, Nigeria, ²International Islamic University Malaysia, Malaysia</i></p> | <p>D. Gasperin*², A.J.H. Guevara¹, <i>¹PU C - SP, Brazil, ²NEF PUC - SP, Brazil</i></p> | <p>of consumer behavior and options for intervention B.A. Lorenz*, N. Langen, <i>Rheinische Friedrich-Wilhelms-Universität Bonn, Germany</i></p> | <p>A configuration approach T. Daddi*¹, F. Testa¹, O. Boiral², F. Iraldo¹, <i>¹Sant'Anna School of Advanced Studies, Italy, ²University of Laval, Canada</i></p> | <p>cement metabolism in a rapid urbanizing city, China W. HUANG*¹, Y. HUANG², Z. CHEN², S. CUI¹, <i>¹Institute of Urban Environment, Chinese Academy of Sciences, China, ²Jimei University, China</i></p> | <p>indicators (2 hrs).</p> | <p>success in food waste sorting Z.Y. Lin*, M.K. Harder, <i>Fudan University, China</i></p> |
| 17:15-17:30 | <p>[WS5.23] How to assess sustainability competences in engineering education. A conceptual framework and methodology. J. Segalas*, A. Hernandez, <i>Universitat Politècnica de Catalunya, Spain</i></p> | <p>[O7.23] A methodology integrating Taguchi, RSM and MOPSO to CNC machining parameters optimization for energy saving Q.G. Xiao¹, C.B. Li¹, Q.L. Wang*², Y. Tang³, L. Li¹, <i>¹Chongqing University, China, ²Rowan University, USA, ³Southwest</i></p> | | <p>[O8.23] Corporate environmental strategies and actions in the D. Pedro I road axis, São Paulo, Brazil J.L. Hoefel*¹, S.R. Seixas², M.S. Simões¹, R. Manabe¹, M.K. Machado¹, <i>¹Faculdades Atibaia, Brazil, ²NEPAM/UNICAMP, Brazil</i></p> | <p>[O9.23] Addressing the slow progress of cleaner production through insights of technology diffusion theories: A proposed integrated model D. Sakr, <i>Universiteit Rotterdam, The Netherlands</i></p> | <p>[WS8.19] The southern Brazil environmental industry contribution to the sustainability of waste management in the industry M.K. Santos*, A.M.F. Danilevicz, V.R. Piazza, C. Cavalli, R.M.C. Tubino, <i>Universidade Federal do Rio Grande do Sul - UFRGS, Brazil</i></p> | <p>[O10.19] A smart system to support users in reducing food waste A. Papetti*, L. Salladini, M. Germani, <i>Università Politecnica delle Marche, Italy</i></p> | <p>[O11.11] Streamlining environmental management systems: An assessment of alternative EMS certification schemes P. Tourais*, N. Videira, <i>Universidade Nova de Lisboa, Portugal</i></p> | <p>[WS12.11] Dynamic analysis of urban water footprints: A case study of Xiamen city, China J. Lin, J. Kang*, S. Cui, Q. Zhang, <i>Chinese Academy of Sciences, China</i></p> | <p>WeValue Workshop – from values to indicators (2 hrs).</p> | <p>The shift of agricultural production in South Yangtze river and the environmental effects submission to the climate smart agriculture workshop L.P. Yang, <i>Fudan University, China</i></p> |

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| | | University, China | | | | | | | | | |
| 17:30-17:45 | [WS5.24] Navigating diversity in universities N. Tojo, B. Kiss*, Lund University, Sweden | | | [O8.24] Values-led organisational change - Overview of findings and outline of a project for a large hospital F. Firoozmand ¹ , G. Burford ¹ , M.K. Harder* ¹ , ² , ¹ University of Brighton, UK, ² Fudan University, China | [O9.24] Mass customization and sustainability for consumer electronics: a case study of Google's modular smartphone concept S. Hankammer* ¹ , R. Kleer ¹ , M. Schymanietz ² , ¹ RWTH Aachen, Germany, ² Friedrich- Alexander- University Erlangen- Nuremberg, Germany | [WS8.20] Management of response operations in humanitarian logistic after an earthquake G. Del Rio, L. Pradenas*, J. Carrasco, Univ ersidad de Concepción, Chile | [O10.20] Sustainable Nutrition - Transformatio n potentials and barriers in the hospitality sector M. Lukas* ¹ , N. Langen ¹ , ¹ Wu ppertal Institute, Germany, ² University of Bonn, Germany | | [WS12.12] Analysis on the state of cleaner production development in China C.B. Zhou*, H.J. Yu, J.J. Liu, Z. Li, Y.Y. Bai, Chinese Research Academy of Environmental Sciences, China | WeValue Workshop – from values to indicators (2 hrs). | Designing Localisable Frameworks as Powerful Behaviour Change Tools M.K. Harder* ¹ , M. Gordon ¹ , D.Y. Xu ¹ , Y.C. Dai ¹ , ¹ Fudan University, China, ² University of Brighton, UK |
| 17:45-18:00 | | | | | | | | | [WS12.13] Research on cleaner production in China during the 1985-2015 period : A bibliometric analysis C-B. Zhou*, Z-Y. Zhao, Z. Li, J-J. Liu, H-J. Yu, Chinese Research Academy of | | Application of Dielectric Barrier Discharge Process in Microorganism Removal from Water Y.Zhang, Fudan University, China |

Tuesday, 03rd November 2015

| 07:00-07:45 | Meditation I Auditorium | | | | | | | | | | |
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| 08:00-08:45 | K05: Yvo de Boer I Auditorium | | | | | | | | | | |
| 08:45-09:30 | K06: Angela Mason I Auditorium | | | | | | | | | | |
| 09:30-10:00 | Refreshment Break | | | | | | | | | | |
| Rooms | Auditorium | Garbi | Llevant 1 | Llevant 2 | Llevant 3 | Llevant 4 | Mestral 1 | Mestral 2 | Mestral 3 | Mestral 4 | |
| 10:05-11:05 | Workshop 5: Education for Sustainable Development Workshop (continued) | Session 13 | Workshop 16: Climate change: Carbon Budgets, Energy Efficiency Improvements, Renewable Energy Systems and Policy Approaches Designed to Reduce Industrial CO2 Emissions | Session 14 | Session 15 | Workshop 19: Corporate impact measurement and management at the dawn of a new global sustainable development agenda | Workshop 21: Urban Mining | Workshop 24: Eco-design and PSS | Workshop 25: Awakening the Dreamer Symposium | Workshop 28: New policy approaches for Eco-design | |
| 10:05-10:20 | [WS5.25] The INDICARE-model – measuring and caring about participation in higher education’s sustainability assessment A. Disterheft ^{*1,2} , U.M. Azeiteiro ^{1,2} , W. Leal Filho ⁴ , S.S. Cairo ¹ | [O13.01] How national environmental proactiveness can exert influence on the appeal of investing in a country? Environmental performance indicators as predictors of country risk A. Arabali ¹ , M. Ghofrani ^{*1,2} , J. Fisher ^{1,3} , ¹ NEC Lab Americas, Inc, USA, ² University of Washington, USA, | [WS16.01] Revenue-based transmission network expansion planning A. Arabali ¹ , M. Casals ^{*1} , B. Amante Garcia ¹ , S. Castellà Dagà ² , M. Cruz-Zambrano ³ , ¹ University of Politècnica de | [O14.01] Energy businesses from re-used electric vehicle batteries L. Canals Casals ^{*1} , B. Amante Garcia ¹ , S. Castellà Dagà ² , M. Cruz-Zambrano ³ , ¹ University of Politècnica de | [O15.01] Deceleration of economic growth as a regular trend in developed countries: holistic approach R. Juknys [*] , G. Liobikiene, R. Dagiliute, Vytautas Magnus university, Lithuania | [WS19.01] EY Austria’s approach to corporate impact measurement C. Jasch, C. Saleta [*] , EY Austria, Austria | [WS21.01] Consumer behavior concerning spent battery collection and recycling in China: a case study M. Sun ^{*1,2} , X. Yang ¹ , D. Huisings ³ , Y. Wang ¹ , R. Wang ¹ , ¹ Shandong | [WS24.01] Eco-Co-Design - Ecodesign with Communication, Cooperation, and Co-creation: A preliminary report T. Sakao, Linköping University, Sweden | WS25 | [WS28.01] Sustainable production through innovation in the wood and furniture sector: Promoting policy-making and eco-design tools from a joint administration-research- | Recycling and recovery of NOM saturated GAC by persulfate oxidation X. Huang, D. An [*] , Fudan University, China |

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| | , ³ , ¹ Universidade Aberta, Portugal, ² Universidade Coimbra, Portugal, ³ Universidade Nova de Lisboa, Portugal, ⁴ Manchester Metropolitan University, Portugal | R. Cervello-Royo*, A. Peiro-Signes, M. Segarra-Oña, Polytechnic University of Valencia, Spain | ³ University of Washington, USA | Catalunya, Spain, ² Centro Técnico SEAT, Spain, ³ Institut de Recerca en Energia, Spain | | | University, China, ² Lund University, Sweden, ³ University of Tennessee, USA | | | industry project A. Petit-Boix* ¹ , E. Sanyé-Mengual ¹ , P. Llorach-Massana ^{1,2} , J. Rieradevall ^{1,3} , X. Gabarrell ^{1,3} , R.G. Lozano ⁴ , C.M. Gasol ^{1,4} , V. Vázquez ⁵ , G. Rodríguez ⁵ , R. Rodríguez-Acuña ⁵ , ¹ Universitat Autònoma de Barcelona (UAB), Spain, ² ELISAVA Barcelona School of Design and Engineering, Spain, ³ Universitat Autònoma de Barcelona (UAB), Spain, ⁴ Inèdit Innovació SL, Spain, ⁵ Instituto Andaluz de Tecnología (IAT), Spain | |
| 10:20-10:35 | [WS5.26] Implementing Integrative Approaches to Sustainability in Higher | [O13.02] A hub is a hub not a network towards a typology of hubs framed | [WS16.02] CO ₂ emission and mitigation potential simulation of China's | [O14.02] Electric taxi transformation in Beijing and its | [O15.02] Optimizing well-being through systems reorientation | [WS19.02] Grand challenges in measuring and managing sustainable | [WS21.02] Substance flow analysis as a tool for improving resource | [WS24.02] Provider value - more than profit: A comprehensive concept to | WS25 | [WS28.02] IES Industrial equipment symbiosis, the future of sustainable | A rare thing: What can we learn from a long-term successful incentives-based recycling scheme? |

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| | <p>Education: the role of project-oriented learning W.L. Filho*, C. Shiel, A. Paco, <i>HAW Hamburg, Germany</i></p> | <p>as a transferor for sustainable development N.R. Faber*¹, J. Jonker², ¹<i>Saxion, The Netherlands</i>, ²<i>Roadbed University Nijmegen, The Netherlands</i></p> | <p>primary aluminum industry Q. Li, W.J. Zhang, H.Q. Li, P. He*, <i>Chinese Academy of Sciences, China</i></p> | <p>environmental impacts X.Q. Shi*, Z.X. Sun, J.X. Yang, <i>Research center for eco-environmental sciences, China</i></p> | <p>to sustainable consumption K.M. Kevany*, G. Baur, <i>Dalhousie University, Canada</i></p> | <p>development impacts - A comparative review across communities of practice N. Schoenherr, A. Martinuzzi*, <i>Vienna University of Economics and Business, Austria</i></p> | <p>efficiency of pre-processing of WEEE M. Ueberschaar*¹, J. Geiping², V.S. Rotter¹, S. Flamme², ¹<i>Technische Universität Berlin, Germany</i>, ²<i>FH Münster, Germany</i></p> | <p>assess value generation in Product/Service Systems J. Matschewsky*, T. Sakao, M. Lindahl, <i>Linköping University, Sweden</i></p> | | <p>industrial equipment design G. Ridaura*, C. Riba-Romeva, <i>Polytechnic University of Catalonia, Spain</i></p> | <p>C.J. Li*, M.K. Harder, <i>Fudan University, China</i></p> |
| 10:35-10:50 | <p>[WS5.27] Energy research area and energy academic content in curricula for sustainable development F.J. Lozano*, I. Studer, G. Ortiz, A. Mendoza, <i>Tecnológico de Monterrey, Mexico</i></p> | <p>[O13.03] Rethinking the social contract: measuring and reporting sustainability in context N.R. Faber*¹, H. Hadders², ¹<i>Saxion University of Applied Sciences, The Netherlands</i>, ²<i>University of Groningen, The Netherlands</i></p> | <p>[WS16.03] Differences of the emission coefficients of China's cement clinkers and selection method for regional emission reduction L. Shen*, T.M. Gao, J.A. Zhao, L.M. Wang, L.T. Liu, <i>Institute of Geographic Sciences and Nature Resources Research (IGSNRR), CAS, China</i></p> | <p>[O14.03] Portfolio Optimization for Clean Energy Vehicles in UK considering Life Cycle CO₂ of Electricity Generation H. Nakamura*¹, M. Despeisse², M. Nakano¹, S. Evans², ¹<i>Keio University, Japan</i>, ²<i>University of Cambridge, UK</i></p> | <p>[O15.03] Bridging the attitude-behavior gap in sustainable consumption: the role of environmental governance Y. Wang, <i>Nankai University, China</i></p> | <p>[WS19.03] Assessing the impacts of multinational corporations on global development and value creation: The role of systems of governance for responsible business conduct F. Wolff*¹, C. Brunn¹, W. Chapple², S. Pouryousefi², W. Meyer⁴, J. Rech⁴, A. Jenkins³, ¹<i>Oeko-Institute e.V., Germany</i>, ²<i>University of Nottingham, UK</i>, ³<i>BRAC, Bangladesh</i>,</p> | <p>[WS21.03] Potential of urban mining from the reverse logistics electronics equipment in BRICS and G7 countries J.S.G. Santos*, S.G. El-Deir, <i>UFRPE, Brazil</i></p> | <p>[WS24.03] Evaluating the environmental performance of product/service-systems - a systematic literature review L.L. Kjaer, A. Pagoropoulos, D.C.A. Pigosso*, T.C. McAlloone, <i>Technical University of Denmark, Denmark</i></p> | WS25 | <p>[WS28.03] Horizontal standards: The missing link to ensure minimum performances of products from a material efficiency perspective? C. McAlister*¹, F. Mathieux², F. Ardente², ¹<i>Seagreen/ECOS, Spain</i>, ²<i>European Commission, Joint Research Centre, Italy</i></p> | |

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| | | | | | | ⁴ Saarland University, Germany | | | | | |
| 10:50-11:05 | <p>[WS5.28] University networks for sustainability- A review of contributions, opportunities and challenges from a COPERNICUS alliance perspective J. Dlouhá^{*1}, C. Mader², D. Kapitulinová¹, L.M. Henderson¹, J. Benayas del Alamo³, ¹Charles University, Czech Republic, ²Leuphana University Lüneburg, Germany, ³Universidad Autónoma de Madrid, Spain</p> | <p>[O13.04] The assessment of overall SCP state of the company: New integrated sustainability index ISCP and the results of its application in two enterprises J.K. Staniškis*, G. Jonkute, <i>Kaunas University of Technology, Lithuania</i></p> | <p>[WS16.04] Carbon footprint as an indicator of environmental effectiveness: A case study of biological and chemical technologies for in-situ soil remediation M.J. Fernandez^{*1}, S. Alvarez¹, L. Gomez¹, O. Escolano², A. Rubio¹, ¹Technical University of Madrid, Spain, ²Centre for Energy, Environmental and Technological Research, Spain</p> | <p>[O14.04] A multi-criteria analysis model for socio-economic and environmental evaluation of renewable energies: Case study of Shanghai H.T. Ren^{*1}, Y.D. Yu¹, T.J. Ma¹, M. Makowski², A. Kharrazi³, ¹East China University of Science and Technology, China, ²International Institute for Applied Systems Analysis, Austria, ³University of Tokyo, Japan</p> | <p>[O15.04] A study of awareness level of environmentally sustainable consumption issues among children L. Rani, M. Sharma*, <i>Birla Institute of Technology and Sciences, India</i></p> | <p>[WS19.04] Development of non-material sustainability indicators through a community based-approach: The Brazilian case of Maceió and Alagoas O. Viégas^{*1,2}, S. Caeiro², T.B. Ramos³, ¹Universidade Federal de Alagoas, Brazil, ²Universidade Aberta, Portugal, ³Universidade Nova de Lisboa, Portugal</p> | <p>[WS21.04] Assessing future domestic E-waste flows from electrification in developing countries A. Batteiger^{*1}, V.S. Rotter¹, ¹Technische Universität Berlin, Germany, ²Technische Universität Berlin, Germany</p> | <p>[WS24.04] Supporting the development of sustainable PSS by means of a maturity model D.C.A. Pigosso*, T.C. McAloone, <i>Technical University of Denmark, Denmark</i></p> | WS25 | <p>[WS28.04] Is SEA an effective tool for promoting policy making on social eco-design Z.G. Wang*, J.Y. Yu, <i>Sun Yat-sen University, China</i></p> | |

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| 11:05-12:05 | Workshop 5: (Continued) | Session 13: (Continued) | Workshop 16: (Continued) | Workshop 17: Energy Transitions in the Nordic Countries | Session 15: (Continued) | Session 16 | Workshop 21: (Continued) | Workshop 24: (Continued) | Workshop 25: (Continued) | Workshop 28: (Continued) |
| 11:05-11:20 | [WS5.29] A whole of program approach to developing understanding of sustainability in chemical engineering undergraduates M.C. Jollands*, E. Baez, <i>RMIT University, Australia</i> | [O13.05] Measuring corporate social responsibility in SMEs N. Bellantuono*, P. Pontrandolfo, B. Scozzi, <i>Politecnico di Bari, Italy</i> | [WS16.05] How to reduce energy and water consumption in the preparation of raw materials in the ceramic tile manufacturing: Dry versus wet route A. Mezquita ¹ , E. Monfort ¹ , S. Ferrer ¹ , D. Gabaldón-Estevan ^{*2} , ¹ Universitat Jaume I, Spain, ² University of Valencia, Spain | [WS17.01] Can disruptive knowledge brokerage trigger energy transitions? The case of a high-level expert group on Finnish energy policy J.I. Hukkinen ^{*1} , P.D. Lund ¹ , ¹ University of Helsinki, Finland, ² Aalto University, Finland | [O15.05] Greening the construction chain through pollution prevention actions: a case study in a developing country S. Vasquez ^{*1} , J. Gaitan ² , I. Restrepo ⁴ , P.A. Vásquez ³ , ⁴ Constructora El Castillo S.A, Colombia, ² Construcciones Vitruvio S.A.S, Colombia, ³ University of Guelph, Canada, ⁴ Universidad del Valle/Cinara Institute, Colombia | [O16.01] Consumption-based versus production-based approaches in international climate change policy S. Afionis ¹ , M. Sakai ^{*1} , K. Scott ¹ , J. Barrett ¹ , A. Gouldson ² , ¹ University of Leeds, UK, ² University of Bristol, UK | [WS21.05] Life cycle assessment of waste mobile phone recycling H. Xu ^{*1} , J.H. Bian ¹ , W.C. Li ¹ , J.F. Yin ² , ¹ Nankai University, China, ² Academy of planning and design Ministry of Agriculture, China | [WS24.05] Economic and environmental evaluation of design for demanufacturing J.R. Peeters ^{*1} , P. Vanegas ^{1,2} , W. Dewulf ¹ , J.R. Duflo ¹ , ¹ KU Leuven-University of Leuven, Belgium, ² University of Cuenca, Ecuador | WS25 | [WS28.05] Assessing the ecodesign review process D.R. Hinchliffe, <i>BAM Federal Institute of Materials Research and Testing, Germany</i> |
| 11:20-11:35 | [WS5.30] Global dimension in engineering research: A characterization of the scientific profile of GDEE community B. Lazzarini*, A. Pérez- | [O13.06] Sustainability reporting and value relevance: Empirical evidence from the beverage industry | [WS16.06] Investigating resource efficiency and environmental policy effect in the eurace framework G.O. Fadiran*, M. Raberto, S. | [WS17.02] Creating indicators of sustainable energy development: Learning from experience in Iceland, New | [O15.06] Social labelling: a study of consumer confusion in the UK market M. Carrigan, C. Bosangit*, A. Kumar, G. | [O16.02] Toward an effective implementation of a method for the calculation of Emission Limit Values by Competent Authorities in | [WS21.06] Text quantitative research on China's urban mining policy development C. Wang, H.J. Geng, H.L. Yao*, L.S. Zuo, <i>Central</i> | [WS24.06] Using agent-based modelling to explore the potential of servicing in product-oriented markets | WS25 | [WS28.06] Regulating complex products: The policy mix for product and building energy efficiency C.J. Dalhammar*, B. |

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| | Foguet, <i>Universitat Politècnica de Catalunya, Spain</i> | F. Doni* ¹ , A. Gasperini ² , ¹ Milano-Bicocca University, Italy, ² Italian Network of Business Reporting & Association of Italian Financial Analysts (AIAF), Italy | Cincotti, <i>University of Genoa, Italy</i> | Zealand and Kenya R. Shortall* ¹ , B. Davidsdottir ¹ , G. Axelsson ¹ , ² , ¹ University of Iceland, Iceland, ² Iceland Geosurvey, Iceland | Bebek, <i>Coventry University, UK</i> | the permitting procedure of the Industrial Emissions Directive. V.L. Vázquez* ¹ , G. Giner-Santonja ² , G. Rodríguez ¹ , ¹ Andalusian Institute of Technology-IAT, Spain, ² Institute for Prospective Technological Studies (JRC-IPTS), Spain | <i>South University, China</i> | R.A.C. van der Veen*, I. Nikolic, K.H. Kisjes, <i>Delft University of Technology, The Netherlands</i> | | Kiss, <i>Lund University, Sweden</i> |
| 11:35-11:50 | [WS5.31] Promoting global learning in engineering curricula: Lessons learnt from the global dimension in engineering education initiative A. Pérez-Foguet ¹ , B. Lazzarini* ¹ , R. Giné ¹ , E. Velo ¹ , A. Boni ¹ , M. Sierra ¹ , G. Zolezzi ¹ , R. Trimmingham ¹ , N. Noble ¹ , F. Mongera ¹ , ¹ Universitat Politècnica de Catalunya, Spain, ² Universidad | [O13.07] Bioindicators for water quality monitoring of industrial activity, in different types of industrial: Study of jeans wash sector R.A.J. Silva, A.E. Alves, S.M.G. Pinheiro, A.M. Melo, S.G. El-Deir*, <i>UFRPE, Brazil</i> | [WS16.07] Analysis of coal oxidation factor and estimation of CO2 emissions from the iron and steel industry in China W. Xu*, B. Wan, M. Shao, T. Zhu, <i>Chinese Academy of Sciences, China</i> | [WS17.03] Energy performance of housing stock in Iceland: System dynamics approach R. Fazeli*, B. Davidsdottir, <i>University of Iceland, Iceland</i> | [O15.07] Is my consumption sustainable? Integrating benchmarks for sustainable resource use in consumer communication L. Echternacht ¹ , J.K.J. von Geibler* ¹ , K. Wiesen ¹ , S.E. Björling ² , S. Kresse ³ , M. Hähn ³ , ¹ Wuppertal Institute for Climate, Environment, and Energy, Germany, ² Enviro Data, Sweden, ³ GS1 Germany, Germany | [O16.03] From land to sea: governance and management insights from terrestrial research useful for developing and expanding socio-ecological marine restoration R.L. France, <i>Dalhousie University, Canada</i> | [WS21.07] Textual and quantitative research on China's urban mining policies Y.F. Xiang, H.L. Yao*, C. Wang, <i>Central South University, China</i> | [WS24.07] Ecodesign transition framework toward companywide sustainable product innovation F.A. Brones*, M.M. Carvalho, E.S. Zancul, <i>Polytechnic School of the University of São Paulo, Brazil</i> | WS25 | [WS28.07] Regulatory inheritance and the designs for nanosafety and circular economy P. Kautto*, J. Kauppila, <i>Finnish Environment Institute, Finland</i> |

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| | <p>Politécnica de Valencia, Spain, ³Universidad Politécnica de Madrid, Spain, ⁴Università di Trento, Italy, ⁵Loughborough University, UK, ⁶Practical Action, UK, ⁷Training Centre for International Cooperation, Italy</p> | | | | | | | | | |
| 11:50-12:05 | <p>[WS5.32] Integration of sustainability issues into product development: Example of a holistic project-based approach for management engineering curricula D. Corti, G. Mattei, A. Fontana*, L. Canetta, <i>University of Applied Sciences and Arts of Southern Switzerland - SUPSI, Switzerland</i></p> | | <p>[WS16.08] A novel approach for spatial integration of CO2 emissions in Chinese cement industry L.M. Wang*, Y. Yang, L. Shen, J.A. Zhao, C.F. Mou, Y.B. Fang, <i>Institute of Geographic Sciences and Nature Resources Research (IGSNRR), CAS, China</i></p> | <p>[WS17.04] Hydrogen transition and prospects for greenhouse gas mitigation in Iceland E. Shafiei*¹, B. Davidsdottir¹, J. Leaver³, H. Stefnansson², E. Asgeirsson², ¹<i>University of Iceland, Iceland</i>, ²<i>Reykjavik University, Iceland</i>, ³<i>Unitec Institute of Technology, New Zealand</i></p> | <p>[O15.08] The moderating effects of age and income on the determinants of responsible consumption: Evidence from France J. Flores, S. Ivanaj, O. Ivanova*, I. Khelladi, <i>ICN Business School, France</i></p> | <p>[O16.04] The political ecology of environmental conflicts in Germany (1990-2014) G.W. Weber, <i>ESSCA Angers, France</i></p> | <p>[WS21.08] The empirical analysis of evaluating the effect of China's urban mining policy based on the enterprise perspective Q. Sun¹, H.L. Yao¹, C. Wang*¹, L.H. Zhang², ¹<i>Central South University, China</i>, ²<i>Liverpool John Moores University, UK</i></p> | <p>[WS24.08] KPIs for measuring the sustainability performance of ecodesign implementation into product development and related processes: A systematic literature review V.P. Rodrigues*, D.C.A. Pigosso, T.C. McAloone, <i>Technical University of Denmark, Denmark</i></p> | WS25 | <p>[WS28.08] Looking for incentives in the ecodesign directive E. Maitre-Ekern, <i>University of Oslo, Norway</i></p> |
| 12:05-13:05 | Lunch Break | | | | | | | | | |
| 13:05-13:50 | K07: Dominique Hes Auditorium | | | | | | | | | |

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| 13:55-14:55 | Workshop 5: (Continued) | Session 13: (Continued) | Workshop 16: (Continued) | Workshop 17: (Continued) | Session 15: (Continued) | Workshop 20: Accelerating sustainable transitions via creative approaches | Workshop 22: Call for Papers for A Special Workshop on Preventing Smog Crises in China and Globally | Workshop 24: (Continued) | Workshop 26: Educational Strategies for the Sustainable Fashion Consumption Imperative: An Interactive Workshop | Workshop 10: (continued) |
| 13:55-14:10 | [WS5.33] Alternative learning activities that foster competences for sustainable development in higher education I. Molderez*, E. Fonseca, <i>University of Leuven, Belgium</i> | [O13.08] Towards sustainable drinking water treatment - The application of natural coagulants in the removal of emerging contaminants V. Serrão Sousa*, M. Ribau Teixeira, <i>University of Algarve, Portugal</i> | [WS16.09] Calculation and evaluation of carbon emission factors based on three new dry cement production lines in China J.A. Zhao*, D.Q. Wei, T.M. Gao, X. Zhou, <i>Institute of Geographic Sciences and Nature Resources Research (IGSNRR), CAS, China</i> | [WS17.05] Potential contribution of biofuels to greenhouse gas mitigation in Iceland E. Shafiei* ¹ , B. Davidsdottir ¹ , J. Leaver ³ , H. Stefansson ² , E. Asgeirsson ² , ¹ University of Iceland, ² Reykjavik University, ³ Unitec Institute of Technology, New Zealand | [O15.09] Households and sustainable technologies: the future is now S. Bigerna ¹ , C.A. Bollino ¹ , S. Micheli* ² , P. Polinori ¹ , ¹ University of Perugia, ² Guglielmo Marconi University, Italy | [WS20.01] Experimenting and communicating sustainable lifestyles to promote energy autonomy (EKO-LIFE) D. Grabher* ¹ , R. Steinparzer ¹ , K. Feurstein ¹ , ¹ Austrian Institute of Ecology, Austria, ² Energieinstitut Vorarlberg, Austria | [WS22.01] Tackling smog pollution in China: From both top-down and bottom-up perspectives Y.T. Wang*, M.X. Sun, <i>Shandong University, China</i> | [WS24.09] Evaluation and comparison of two CAD-integrated SLCA tools with dedicated LCA software to assist in early stage product development environmental evaluation J.M. Van Der Bank*, J. Braet, R. Linders, <i>University of Antwerpen, Belgium</i> | [WS26.01] DIY in fashion: An opportunity for social manufacturing and system change? K. Niinimäki* ¹ , C.M. Armstrong ² , A.L. Hirscher ¹ , ¹ Aalto University, Finland, ² Okhlahoma State University, USA | [WS10.13] Benchmarking green chemistry adoption by "big pharma" and generics manufacturers: Drivers, Barriers and Opportunities V.R. Veleva*, B. Cue, <i>University of Massachusetts Boston, USA</i> |
| 14:10-14:25 | [WS5.34] Assessing sustainability competence J. Segalàs*, A. Hernández, <i>University Research Institute for Sustainability Science and Technology. UPC., Spain</i> | [O13.09] An emerging urban contamination: Ultraviolet filters in water L. Hongjing, <i>Fudan Unive, China</i> | [WS16.10] How did we assess the outcomes of tradable green certificates? A review A. Darmani* ^{1,2} , A. Rickne ¹ , A. Hidalgo ² , N. Arvidsson ¹ , ¹ Royal Institute of Technology, | [WS17.06] Onshore wind energy in forested areas in Northern Europe: Reviewing the risks P. Enevoldsen ¹ , ² , ¹ Aarhus University, Denmark, | [O15.10] A guided product label design for effective sustainability communication S. Menato, A. Fontana*, P. Innocenti, P. Pedrazzoli, M. Sorlini, <i>University of Applied</i> | [WS20.02] Redefining the role of the designer in the development of sustainable urban futures H.D. Lester, <i>Stevens Institute of Technology, USA</i> | [WS22.02] Improvement of the sulfur resistance of Nb-modified Cu-SAPO-34 catalysts C. Niu*, X.Y. Shi, K. Liu, H. He, <i>State Key Joint Laboratory of Environment</i> | [WS24.10] Rebound effects: Opportunities for their assessment and minimization based on user integration in living Labs J. Buhl, J.K.J. von Geibler*, L. | [WS26.02] Educational strategies for the sustainable fashion consumption imperative: A panel discussion C.M. Armstrong* ¹ , K. Niinimäki ¹ , A. Hirscher ¹ , W. | [WS10.14] IAMC Toolkit: Innovative Approaches for the Sound Management of Chemicals and Chemical Waste |

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| | | | Sweden, ² Universidad Politécnica de Madrid, Spain | ² Siemens Wind Power, Denmark | Sciences and Arts of Southern Switzerland, Switzerland | | Simulation and Pollution Control, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, China | Echternacht, M. Linder, Wuppertal Institute for Climate, Environment and Energy, Germany | Gwozdz ¹ , K. Laitala ¹ , T. Cooper ¹ , ¹ Oklahoma State University, USA, ² Aalto University, Finland, ³ Copenhagen Business School, Denmark, ⁴ National Institute for Consumer Research, Norway, ⁵ Nottingham Trent University, UK | C.W. Hawthorne*, S. Bauer, R. Joas, ISSPPR O GmbH, Germany |
| 14:25-14:40 | [WS5.35] Education as initiation in a disciplinary paradigm. Paradigmatic pressures as an obstacle to integrated problem solving K.F. Mulder* ¹ , J. Segalas-Coral ² , G. Tejedor-Papell ² , ¹ Delft University of Technology, The Netherlands, ² UPC, Spain | [O13.10] Water management for military deployed operations: Balancing different values of stakeholders K. Chelkowska-Risley*, J.-J. Bouma, <i>Erasmus University of Rotterdam, The Netherlands</i> | [WS16.11] Expanding the scope of climate change mitigation practices in energy-intensive industry C. Malmgren*, T. Zobel, <i>Luleå University of Technology, Sweden</i> | [WS17.07] Commercialization of renewable energy technologies in Finland: Prospects and challenges S.R. Shakeel*, J. Takala, <i>University of Vaasa, Finland</i> | [O15.11] Consumer valuation of energy-saving features of residential air conditioners with hedonic and choice models S.M. Matsumoto, <i>Aoyama Gakuin University, Japan</i> | [WS20.03] The Creative Imperative: The Role of Creativity, Creative Problem Solving and Insight as Key Drivers for Sustainability I. Kajzer Mitchell*, J. Walinga, <i>Royal Roads University, Canada</i> | [WS22.03] The selective catalytic reduction of NO _x by NH ₃ over one-pot synthesized Cu-SSZ-13: post-treatment and monolith catalysts X. Shi*, L. Xie, C. Niu, H. He, <i>Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, China</i> | [WS24.11] Are energy saving companies helping to promote the LED luminaries? Lessons from the experiences of servitising LED luminaries in South Korea J.S. Baek*, S.-J. Kim, <i>UNIST, Republic of Korea</i> | WS26 ARMSTRONG | [WS10.15] Transformation toward sustainable production of non-ferrous industry in China: Driving forces and perspective H. Ling, <i>Peking University, China</i> |
| 14:40-14:55 | [WS5.36] Students' perceptions on sustainability at university | [O13.11] Seawater desalination as a climate change adaptation | [WS16.12] Characterization of industrial energy management | | [O15.12] Configuration model of consumer driven framework: A | [WS20.04] An investigation of core competency of university | [WS22.04] Impact of aerosol pollution on precipitations | [WS24.12] Circular economy from a business perspective | WS26 ARMSTRONG | |

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| | A. Minelgaite, R. Dagiliute, G. Liobikiene*, Vyt autas Magnus university, Lithuania | strategy; An insight on its impacts on urban water consumption and sustainability M.C. Fragkou, Universidad de Chile, Chile | practices – Ten case studies of swedish foundry A-B. Sa* ¹ , B. Thollander ² , A. Cagno ² ¹ , ¹ Politecnico di Milano, Italy, ² Linköping University, Sweden | | case of automobile industry in Italy J. Shao* ^{1,2} , M. Taisch ¹ , M. Ortega Mier ² , ¹ Politecnico di Milano, Italy, ² Universidad Politécnica de Madrid, Spain | laboratories in China C. Zhou, Aalborg University, Denmark | and the related consequences on soil erosivity M. Casazza* ¹ , J. Liu ^{2,3} , S. Ulgiati ^{1,2} , ¹ University 'Parthenope' of Naples, Italy, ² Beijing Normal University, China, ³ Beijing Engineering Research Center for Watershed Environmental Restoration & Integrated Ecological Regulation, China | L.J. de Olde, Philips International, The Netherlands | | |
| 14:55-15:25 | Refreshment Break | | | | | | | | | |
| Rooms | Auditorium | Garbi | Llevant 1 | Llevant 2 | Llevant 3 | Llevant 4 | Mestral 1 | Mestral 2 | Mestral 3 | Mestral 4 |
| 15:25-17:25 | Workshop 5: (Continued) | Session 13: (Continued) | Workshop 16: (Continued) | Workshop 18: SUBJECT EDITORS' MEETING | Session 15: (Continued) | Workshop 20: (Continued) | Workshop 23: Pathway to preventative and regenerative Eco-industrial development – lessons from around the world | Workshop 24: (Continued) | Workshop 27: Sustainable primary metal supply from mining in a carbon constrained future | Workshop 29: Regenerative Sustainability - research and practice toward urban vitality & Eco-town workshop |
| 15:25-15:40 | [WS5.37] Adapting organisational change management for sustainability frameworks to universities' context | [O13.12] Comparative environmental assessment of intermodal transport systems A. Fenollar Solvay* ¹ , K. Tarnacki ² , S. | [WS16.13] A different way to measure industrial transition C.H. Huang*, C.W. Yang, T.W. Lin, T.T. Lin, Taiwan | WS18 SUBJECT EDITORS' MEETING | [O15.13] Region of origin information's influence on taste perception and consumer choice C-H. Yeh*, N. Langen, B. Lorenz, J. | | WS23 | [WS24.13] Product/Service Systems in Emerging Markets - Case and Implications T. Sakao* ¹ , N. Kebir ² , ¹ Linköping University, Sweden, | WS27 | [WS29.01] Smart cities: A review of current definitions, theories, implementations and future challenges |

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| | A. Ulz* ¹ , R.J. Baumgartner ¹ , R. Lozano ² , ¹ University of Graz, Austria, ² Utrecht University, The Netherlands | Jeschke ¹ , ¹ IMA of the RWTH Aachen University, Germany, ² Forschungszentrum Jülich GmbH, Germany | Research Institute, Taiwan | | Klink, University of Bonn, Germany | | | ² MicroEnergy International GmbH, Germany | | R. Lukman ^{1,2} , P. Glavic* ¹ , K. Pogacnik ² , F. Rihl ¹ , P. Virtic ¹ , ¹ University of Maribor, Slovenia, ² Envirodual Ltd, Slovenia |
| 15:40-15:55 | [WS5.38] From the profit of one to the benefit of many - On path towards regenerative business in built environment J. Matinheikki*, R. Rajala, A. Peltokorpi, <i>Aalto University, Finland</i> | [O13.13] The impact of emerging technologies on the whole life carbon footprint of cars and it's implication for the length of car lifetimes J. Rogers ¹ , ¹ University of Bath, UK, ² Nottingham Trent University, UK | [WS16.14] The role of technological changes, international trade and consumption behaviour in CO2 emissions from industry: A case study of the Southern Europe countries D. Kopidou*, D. Diakoulaki, <i>National Technical University of Athens, Greece</i> | WS18 SUBJECT EDITORS' MEETING | [O15.14] Is family seasonal consumption good for the environment? Monthly domestic and international trade using multiregional input-output data M.A. Tobarra*, L.A. López, M.A. Cadarso, N. Gómez, <i>Universidad de Castilla-La Mancha, Spain</i> | [WS20.06] Becoming land - Regenerative creative action A. Dulic*, K. Newby, J. Angel, <i>University of British Columbia, Canada</i> | WS23 | [WS24.14] Presenting the design for individuals and practices (DIP) toolkit M.A. Moreno* ¹ , L. Piscicelli ² , T. Cooper ² , T. Fisher ² , ¹ Cranfield University, UK, ² Nottingham Trent University, UK | WS27 | [WS29.02] Challenges to the Promotion of Sustainable Mobility in Europe: examples from the North Sea Region W. Leal Filho, <i>HAW Hamburg, Germany</i> |
| 15:55-16:10 | [WS5.39] Researching the role of mindfulness in promoting sustainable consumption: A review of methodological approaches and challenges D. Fischer* ¹ , S. Geiger ² , J. | [O13.14] How R&D promotes the development of clean energy vehicles in China: Exploring the roles of government advance subsidies and government reimbursement | [WS16.15] Better interpreting studies and improving scientific policy advice for decisions on energy system investments B. Droste-Franke, <i>EA European</i> | WS18 SUBJECT EDITORS' MEETING | [O15.15] Sustainable consumption and production: The genesis and challenges of successful retail & industry joint projects A. Vargas, G.M. Pereira*, M. Borchardt, J.U. Gustavo | [WS20.07] Applying playful modeling for sustainable change: Collective development of energy efficient production K-P. Schulz* ¹ , D. Jentsch ² , S. Geithner ³ , ¹ ICN Business School, | WS23 | [WS24.15] Supporting ISO 14.001:2015 implementation based on the ecodesign maturity model D.C.A. Pigosso*, T.C. McAloone, <i>Technical University of Denmark, Denmark</i> | WS27 | [WS29.03] Upgrade use of wastes, biomass and waste heat in industries M. Fujii*, L. Dong, T. Fujita, T. Togawa, M. Ooba, <i>National Institute for</i> |

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| | Harfensteller ² , U. Schrader ² , L. Stanzus ² , ¹ Leuphana Universität Lüneburg, Germany, ² Technische Universität Berlin, Germany | H. Peng, <i>Wuhan University of Technology, China</i> | <i>Academy of Technology and Innovation Assessment GmbH, Germany</i> | | Junior, <i>Universidade do Vale do Rio dos Sinos - UNISINOS, Brazil</i> | France, ² TU Chemnitz, Germany, ³ TU Dresden, Germany | | | | <i>Environmental Studies, Japan</i> |
| 16:10-16:25 | [WS5.40] Experimentation in environmental education using social technologies, a new proposal for environmental education C.L.M. Carrasco ¹ , L.A. Santos ² , S.G. El-Deir ^{*1} ² , ¹ ITEP, Brazil, ² UFRPE, Brazil | [O13.15] How cleaner are electric engine solutions? A life cycle assessment comparison between battery and Hydrogen-FC powered electric bikes S. Mellino ^{*1} , A. Petrillo ¹ , V. Cigolotti ² , C. Autorino ¹ , E. Jannelli ¹ , S. Ulgiati ¹ ³ , ¹ University of Naples, Italy, ² ENEA Portici Research Centre, Italy, ³ Beijing Normal University, China | [WS16.16] A critical review of industrial management approaches for climate change mitigation T. Zobel, <i>Luleå University of Technology, Sweden</i> | WS18 SUBJECT EDITORS' MEETING | [O15.16] Exploring the role of moral norms and neutralisation in environmentally conscious behaviour: The case of UAE consumers S. Iyanna ^{*1} , C. Bosangit ² , M. Carrigan ² , ¹ Abu Dhabi University, United Arab Emirates, ² Coventry University, UK | [WS20.08] Free to think: Participatory and creative methodologies for imagining a sustainable commodity discourse I. Kajzer Mitchell ^{*1} , M. Saren ¹ , ¹ Royal Roads University, Canada, ² Leicester University, UK | WS23 | | WS27 | [WS29.04] Regenerative sustainability from the inside out: A values-based approach J. Moreno*, E. Hoover, M.K. Harder, <i>Fudan University, China</i> |
| 16:25-16:40 | [WS5.41] Preparing designers for a circular economy goldrush; Exploring the implications for education | [WS3.11] The Malawian Agricultural Commodity Exchange: A business model for market support & | [WS16.17] Towards a 90% reduction of the fossil energy footprint, a case study of a wood panels factory E. Popovici ^{*1} , E. Benetto ¹ , E. | [WS5.46] Making a difference in higher education for sustainable development C.E. Scarff Seatter, <i>University of British</i> | | [WS20.09] (Sustainable) universities go Dragon Dreaming – learning for transition A. Disterheft ¹ , ¹ Uni | | | WS27 | [WS29.05] Exploring the role of lean thinking in sustainable business practice H.T.S. Caldera*, C. |

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| | R. Wever* ^{1,2} , F. Charnley ³ , C. Brass ⁴ , L. Harrison ⁴ , ¹ Linköping University, Sweden, ² Delft University of Technology, The Netherlands, ³ Cranfield University, UK, ⁴ Royal College of Art, UK | institutional development D. Dentoni*, L. Dries, Wageningen University, The Netherlands | Igos ¹ , M. Becker ² , ¹ Luxembourg Institute of Science and Technology (LIST), Luxembourg, ² Kronospan Luxembourg S.A., Luxembourg | Columbia, Canada | | versidade Aberta, Portugal, ² Centre of Functional Ecology, Universidade de Coimbra, Portugal, ³ CENSE, Universidade Nova de Lisboa, Portugal | | | | Desha, L. Dawes, Queensland University of Technology, Australia |
| 16:40-16:55 | [WS5.42] Getting to cleaner production by educating engineers C. Haskins*, A.M. Fet, Norwegian University of Science and Technology, Norway | [WS3.12] 2MB: A novel metamodel to enhance creativity and sustainability in participatory conceptual design of bioenergy systems R. Martins* ¹ , J. Cherni ¹ , N. Videira ² , ¹ Imperial College London, UK, ² Universidade Nova de Lisboa, Portugal | [WS16.18] Carbon integration in industrial parks to reduce GHG emissions D.M. Al-Mohannadi* ¹ , S.K. Binshu ¹ , S.Y. Alnouri ¹ , P. Linke ¹ , ¹ Texas A&M University at Qatar, Qatar, ² Texas A&M University at Qatar, Qatar, ³ QEERI, Qatar | [WS5.47] Bridging aims and delivery of higher education for sustainable development: connecting competences to pedagogical approaches M.Y. Merrill* ¹ , R. Lozano ² , ¹ Nanyang Technological University, Singapore, ² Utrecht University, The Netherlands | | [WS20.10] From moral to aesthetic knowledge, and back again: Creative arts-based ways to elicit shared values G. Burford* ¹ , E. Hoover ¹ , M.K. Harder ¹ , ¹ University of Brighton, UK, ² Fudan University, China | | | WS27 | [WS29.06] Harnessing the motivations of architectural designers to engage with sustainable construction N. Murtagh*, A.H. Roberts, R. Hind, UCL, UK |
| 16:55-17:10 | [WS5.43] Life cycle assessment and life cycle cost of university dormitories in China L. Huang* ¹ , Y. Liu ² , G. | [WS3.13] Market approaches of sustainable business models in latin america G. Lozano*, I. Palomares, F. Layrisse, EGADE | [WS16.19] Emery-based sustainability assessment of a biomass-electricity-spirulina linked carbon-negative | [WS5.48] Values as the golden thread? Integrating sustainability from within education institutions | | | | | WS27 | |

Wednesday, 04th November 2015

| 07:00-07:45 | Meditation I Auditorium | | | | | | | | | |
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| 08:00-08:45 | K08: Prasad Modak I Auditorium | | | | | | | | | |
| 08:45-09:30 | K09: Bill McKibben I Auditorium | | | | | | | | | |
| 09:30-10:00 | Refreshment Break | | | | | | | | | |
| Rooms | Auditorium | Garbi | Llevant 1 | Llevant 2 | Llevant 3 | Llevant 4 | Mestral 1 | Mestral 2 | Mestral 3 | Mestral 4 |
| 10:05-12:05 | Workshop 30: Towards Smart urban systems | Session 17 | Workshop 32: Social Entrepreneurship as a Vehicle for Sustainability | Session 18 | Workshop 28: (continued) | Workshop 33: Innovation and Sustainable Development | Workshop 34: Urban Ecological Infrastructure for Healthier Cities | Session 19 | Workshop 36: Improved Resource Efficiency and Cascading Utilization of Renewable Materials | Workshop 37: Design Approaches to Sustainability |
| 10:05-10:20 | [WS30.01] Dwelling: A shelter or inclusion to citizenship in Ibero-american countries? A.J.H. Chevara ¹ , L.F. Silva ¹ , D.M. Conti ^{*1} , P.S.G. Oliveira ² , ¹ PUC-SP, Brazil, ² Universidade Ibirapuera, Brazil | [O17.01] Country-of-origin and chemical residue test determine consumers' preferences for sweet peppers in Taiwan: A discrete choice experiment C-H. Yeh*, N. Langen, M. Hartmann, <i>University of Bonn, Germany</i> | | [O18.01] Integrated scenarios in the scope of the German national sustainability strategy A. Fink*, H. Rammig, <i>ScMI Scenario Management International AG, Germany</i> | [WS28.09] Environmental and economic assessment of durability of vacuum cleaners S. Bobba ^{*1,2} , F. Ardente ¹ , F. Mathieux ¹ , ¹ Joint Research Centre, Italy, ² Politecnico di Torino, Italy | [WS33.01] A study on renewable energy potential based on the global atmospheric data W. Yang ¹ , Y. Liu ^{*2} , ¹ University of Vaasa, Finland, ² Vaasa University of Applied Sciences, Finland | [WS34.01] Urban symbiosis as a strategy for sustainable cities: Management and policy-making K.F. Mulder, <i>Delft University of Technology, The Netherlands</i> | [O19.01] Developing a holistic framework to understand the contribution of sustainable public procurement to the development of more sustainable business models S. Witjes*, R. Lozano, <i>Utrecht University, The Netherlands</i> | [WS36.01] Planning of Location, Capacity and Configuration of Biorefineries in a Continuous Solution Space T. Schröder*, L-P. Lauen, J. Geldermann, <i>Georg-August-University Göttingen, Germany</i> | [WS37.01] A strategic approach in designing sustainable products for multiple life cycles T.F. Go, D.A. Wahab*, H. Hishamuddin, <i>Universiti Kebangsaan Malaysia, Malaysia</i> |
| 10:20-10:35 | [WS30.02] How to construct a new urban future? Toward the sustainable and smart cities D.M. Conti*, L.F. Silva, P.F. Saad, V.L.R. | [O17.02] Green consumption - Way to a sustainable agriculture in Romania M.I. Aceleanu ¹ , D.M. Pociovalisteanu ² , I. Novo-Corti ^{*3} , | [WS32.02] Social entrepreneurship, sustainability, tetrad-value theory J.M.S. Carvalho ^{*1,2} , C.A.A. Sousa ¹ | [O18.02] Identification of key sustainable development goals and indicators: results of a questionnaire survey conducted | [WS28.10] The Danish voluntary agreement on WEEE U. Sønderhousen ¹ , M. Larsen ¹ , E. Öhlander ¹ , C. Busk ^{*2} , ¹ NIRAS | [WS33.02] Sustainable innovation for system transition: a dynamic capabilities approach E.A. Iñigo*, L. Albareda, <i>Deus</i> | [WS34.02] Urban Ecological Infrastructure: An integrated network for ecosystem services and sustainable urban systems | [O19.02] Inserting Product-Service Systems in Sustainable Public Procurement C.M. van Geet ^{*1} , R. Lozano ¹ , ¹ Ministr | [WS36.02] Environmental impacts of wood based products under consideration of cascade utilization - a systematic | [WS37.02] Exploring end user perspectives in the practice of staying warm at home. A.M. de Jong ^{*1,2} , M. Denward ¹ , D.J. |

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| | Vieira, <i>PUC - SP, Brazil</i> | A.C. Serban ¹ , C. Burghilea ¹ , ¹ <i>Th e Bucharest University of Economic Studies, Romania,</i> ² <i>University of Târgu-Jiu, Romania,</i> ³ <i>University of A Coruna, Spain,</i> ⁴ <i>Hyperion University, Romania</i> | ³ , ¹ <i>University Institute of Maia, Portugal,</i> ² <i>Universidade do Minho, Portugal,</i> ³ <i>NECE-UBI, Portugal</i> | in the US, Japan and Thailand M. Suzuki* ¹ , T. Kusago ² , K. Ikeda ³ , K. Hara ⁴ , M. Uwasu ⁴ , O. Tyunina ⁵ , ¹ <i>Sophia University, Japan,</i> ² <i>Kansai University, Japan,</i> ³ <i>Japan Women's University, Japan,</i> ⁴ <i>Osaka University, Japan,</i> ⁵ <i>Tokyo University, Japan</i> | <i>A/S, Denmark,</i> ² <i>Confederation of Danish Industry, Denmark</i> | <i>to Business School, Spain</i> | F. Li* ¹ , C.B. Zhou ¹ , D. Zhao ² , ¹ <i>Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, China,</i> ² <i>Beijing Municipal Institute of City Planning & Design, China</i> | <i>y of Infrastructure and the Environment, The Netherlands,</i> ² <i>Utrecht University, Copernicus Institute of Sustainable Development, The Netherlands</i> | literature review N. Thonemann, <i>University of Göttingen, Germany</i> | Oogjes ¹ ³ , ¹ <i>Interactive Swedish ICT, Sweden,</i> ² <i>Technische Universiteit Delft, The Netherlands,</i> ³ <i>Technische Universiteit Eindhoven, The Netherlands</i> |
| 10:35-10:50 | [WS30.03] Policies and procedures for smart cities and the roles of funding instruments and implementation processes M. Paula ¹ , J. Fuerst* ¹ , C. Dankl ² , ¹ <i>Federal Ministry for Transport, Innovation and Technology, Austria,</i> ² <i>Austrian Society for Environment and Technology, Austria</i> | [O17.03] Local as the new green: Exploring new possibilities for sustainable fashion I.G. Klepp, K. Laitala, G. Vittersø*, <i>National Institute for Consumer Research (SIFO), Norway</i> | [WS32.03] Ecopreneurship and business model formation: A theoretical framework M. Paulsson*, A. Gabrielsson, <i>Umeå University, Sweden</i> | [O18.03] Urban densification as a strategy for sustainability A. Palm, <i>Lund University, Sweden</i> | [WS28.11] Desired and undesired effects of energy labels— An eye-tracking study S. Waechter*, B. Sütterlin, M. Siegrist, <i>ETH Zurich, Switzerland</i> | [WS33.03] Ex-ante evaluation of responsible innovation in research networks M. Schilperoord* ¹ , B. Schrempf ¹ , P. Ahrweiler ¹ , M. Müller ² , A. Pyka ² , N. Gilbert ³ , ¹ <i>EA European Academy of Technology and Innovation Assessment GmbH, Germany,</i> ² <i>Hohenheim University, Germany,</i> ³ <i>University of Surrey, UK</i> | [WS34.03] Design research for city futures: Framing the emerging area of design for system innovations and transitions A.I. Gaziulusoy*, C. Ryan, <i>University of Melbourne, Australia</i> | [O19.03] Exploiting the potential of public procurement - Opportunities for cleantech diffusion K. Alhola, A. Nissinen*, <i>Finnish Environment Institute, Finland</i> | [WS36.03] Increasing the resource efficiency within the value chain of low-value sorts for chosen hardwoods from sustainable managed mixed stands W. Hesselbach, <i>Georg-August-University of Göttingen, Germany</i> | [WS37.03] Research through Design as space for spawning M.K. Harder* ¹ ² , G. Burford ² , E. Hoover ¹ ² , ¹ <i>Fudan University, China,</i> ² <i>University of Brighton, UK</i> |

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| 10:50-11:05 | <p>[WS30.04] A methodology to design models of urban energy systems L.M. Agudin, Ramon Lull University, Spain</p> | <p>[O17.04] Applicability of social practice theory to sustainable clothing consumption research K. Laitala, National Institute for Consumer Research (SIFO), Norway</p> | <p>[WS32.04] How the efficiency of household waste management can be improved: Case studies of Belgium and Bulgaria I.A. Bozhikin*^{1,2}, N.A. Dentchev^{1,3}, ¹VUB, Belgium, ²UNWE, Bulgaria, ³KU Leuven, Belgium</p> | <p>[O18.04] Balancing private and public interests in societal decision-making: A case study of estuarine protection L.R. Martin, Erasmus University, USA</p> | <p>[WS28.12] Innovative eco-design tools for electronic devices end-of-life emerging from producer responsibility system T. Van Nieuwenhuysse*, P-M. Assimon, Eco-systèmes, France</p> | <p>[WS33.04] Frugal and reverse innovation as novel business models having diverse sustainability impact E. Rosca¹, J. Bendul¹, M.G. Arnold*², ¹Jacobs University Bremen, Germany, ²University of Oldenburg, Germany</p> | <p>[WS34.04] Beyond waste – an examination of municipal waste management practices in the Maltese Islands using comparative material flow accounting and carbon footprint assessment to analyse current and the future planned scenarios M. Camilleri*^{1,2}, X. Gabarrell², R. Farreny², J. Oliver-Sola², ¹University of Malta, Malta, ²Universitat Autònoma de Barcelona, Spain</p> | <p>[O19.04] Sustainable public food procurement: a systematic literature review G. Stefani, M. Tiberti, G.V. Lombardi*, <i>university of Florence, Italy</i></p> | <p>[WS36.04] Peat and pots: A new concept for regularization robustness in multi-objective optimization and its application C. Krüger*, F. Castellani, J. Geldermann, A. Schöbel, <i>University of Göttingen, Germany</i></p> | |
| 11:05-11:20 | <p>[WS30.05] Where does participation happen? Citizens' values in future Smart cities F. Hoover*, P. Graham, M.K. Harder, Fudan University, China</p> | <p>[O17.05] Entrepreneurship support and sustainability focus within business incubators – a European study D. Bienkowska*, M. Klofsten, Linköping University, Sweden</p> | <p>[WS32.05] Tax and social entrepreneurship: evidence from Ireland creating principles for sustainable taxation S. Killian, University of Limerick, Ireland</p> | <p>[O18.05] Evaluating subjective welfare - a systematic review of subjective well-being indicators G. Harangozo, Corvinus University of Budapest, Hungary</p> | <p>[WS28.13] Life cycle assessment of ceramic tiles manufactured in Sri Lanka A.R.M. Rikkas*, A.K. Kulatunga, P.B.R. Dissanayake, J. Gowryathan, C. Chandrakumar, University of</p> | <p>[WS33.05] Measuring resources, capacities and competences for eco-innovation in firms C.P. Kiefer*¹, J. Carrillo-Hermosilla¹, P. Del Río², F.J. Callealta¹,</p> | <p>[WS34.05] Life cycle-based energy consumption and economic cost of typical wastewater treatment systems in Shenzhen, China W.J. Li*¹, L.J. Li¹, G.Y. Qiu¹, X.F.</p> | <p>[O19.05] Navigating the circular economy: The particle-versus-product debate F. Blomsma^{1,2}, ¹Imperial College London, UK, ²UK Centre for Sustainable Manufacturing, UK</p> | <p>[WS36.05] IT-based value co-creation in inter-organizational networks for the utilization of renewable resources M. Mandrella, University of Goettingen, Germany</p> | |

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| | | | | | Peradeniya, Sri Lanka | ¹ University of Alcalá (UAH), Spain, ² CSIC, Spain | Hao ¹ , Q. Luo ¹ , ¹ Peking University, China, ² Shenzhen State High-tech Industrial Innovation Centre, China, ³ Shenzhen Second Senior Technical School, China | | | |
| 11:20-11:35 | | [O17.06] Organizational sustainability transformation: The role of institutional intra-preneurship L. Albareda* ¹ , D. Ernst ² , R. Adams ³ , ¹ Deusto Business School, Spain, ² Celviva Sustainable Innovation Services, Germany, ³ Surrey University Business School, UK | [WS32.06] Conflicting logics and hybridity: A look at social enterprises S. Hai* ¹ , M. Struminska ² , R. von Wittken ³ , ¹ ESA DE Business School, Ramon Llull University, Spain, ² Kozminski University, Poland, ³ TUM School of Management, Germany | [O18.06] Diverse religions on the global stage for climate change: a comparison of real-world actions J. Stubblefield* ¹ , J. Watkins ² , D. Huisingh ¹ , J.J. Bouma ¹ , ¹ Erasmus University, The Netherlands, ² United Methodist Church, USA | [WS28.14] Public policy models that strengthen circular economy: A study applied to the consolidation of vehicle recycling process in Brazil N.S. Coimbra* ¹ , ² A.M.F. Danilevicz ¹ , ¹ Universidade Federal do Rio Grande do Sul, Brazil, ² Departamento Estadual de Trânsito do Estado do Rio Grande do Sul, Brazil | [WS33.06] Sustainable innovations for economic growth Y. Krozer ¹ , ² , ¹ University Twente, The Netherlands, ² Sustainable Innovations Academy, The Netherlands | [WS34.06] Design criteria for urban ecological infrastructure: The case for just city metrics H.D. Lester*, W.B. Rouse, W.J. Braida, Stevens Institute of Technology, USA | [O19.06] Conceptual framework for shared value creation based on value mapping N.M.P. Bocken ¹ , ² , ¹ TU Delft, Industrial Design Engineering, The Netherlands, ² University of Cambridge, UK | [WS36.06] Multi-objective robust flow problems in resource utilization networks L. Thom*, A. Schöbel, Georg-August-University Göttingen, Germany | |
| 11:35-11:50 | | [O17.07] A Corporate Social Entrepreneurship Tool to Kickstart Social | [WS32.07] From risky innovation to socially responsible | [O18.07] Towards synergies between local repairers, | [WS28.15] Building the bridge between innovative recycling | [WS33.07] The driving forces of process eco-innovation and their impact on | [WS34.07] Infrastructure ecology: An evolving paradigm for | [O19.07] Implementation of circular economy in | [WS36.07] An application of agent-based modelling for | |

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|--|--|---|---|--|---|--|---|--|---|--|
| | | <p>Intrapreneurship N.M.P. Bocken^{1,2}, T.H.J. Geradts^{3,4}, ¹TU Delft, The Netherlands, ²The University of Cambridge, UK, ³Erasmus University, The Netherlands, ⁴Nyenrode Business Universiteit, The Netherlands</p> | <p>innovation - Key stakeholder influences on social ventures in product innovation management F. Polzin^{*1}, D. Langer², ¹Sustainable Business Institute (SBI), Germany, ²EBS Business School, Germany</p> | <p>citizens, designers, and public actors: The REVALUE project B. Tyl^{*1}, R. Allais², N. Bocken³, P.P. Pichler⁵, F. Lüdeke-Freund⁶, F. Berlingen⁷, M. Len⁸, V. Fernani⁹, C. Baldacchino¹, M. Hamwi¹, D. Lévi Alvarès⁷, A. Gheorghica¹⁰, G. Masson¹¹, B. Kubbinga¹², S. Prendeville^{3,4}, K. Kruk¹², K. Whalen¹², J. Gobert², C. Brass⁴, ¹Apesa, France, ²CNRS-University of technologie of Troyes, France, ³TU Delft, The Netherlands, ⁴Royal College of Art, UK, ⁵Potsdam University, Germany, ⁶University of Hamburg, Germany, ⁷Zero Waste Europe, The Netherlands, ⁸RREUSE, Belgium, ⁹ApiUP, France, ¹⁰Mai Bine, Romania, ¹¹MetalIT, France,</p> | <p>technologies and recycling-friendly product design - The example of technology metals M. Marwede^{*1}, P. Chancerel¹, M. Ueberschaar¹, V.S. Rotter¹, N.F. Nissen², K-D. Lang^{1,2}, ¹Technische Universität Berlin, Germany, ²Fraunhofer Institute for Reliability and Microintegration IZM, Germany</p> | <p>performance: Insights from Slovenia J. Hojnik[*], M. Ruzzier, <i>University of Primorska, Slovenia</i></p> | <p>sustainable urban development A. Pandit^{*1}, E.A. Minne¹, F. Li⁴, H. Brown³, H. Jeong¹, J.C. James¹, J.P. Newell², M. Weissburg¹, M.E. Chang¹, M. Xu², ¹Georgia Institute of Technology, USA, ²University of Michigan, USA, ³City University of New York, USA, ⁴Chinese Academy of Sciences, China</p> | <p>Danish companies E. Guldmann[*], J.P. Jensen, <i>Aalborg University, Denmark</i></p> | <p>gauging the wood market A. Becker, <i>University of Göttingen, Germany</i></p> | |
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| | | | | ¹² Circle Economy, The Netherlands | | | | | | |
| 11:50-12:05 | | [O17.08] The hidden link in sharing economy models: How does the organization influence its users' behavior? P. Sevikul*, D. Dentoni, Wageningen University, The Netherlands | [WS32.08] Social innovation and collective entrepreneurship: A Brazilian case J.A.R. Sarate ¹ , J. Macke* ¹ , ² , ¹ Faculdade Meridional (IMED), Brazil, ² Universidade de Caxias do Sul (UCS), Brazil | [O18.08] Explaining differences in citizens' appraisals of externalities associated with polluting industrial agglomerations: The case of two petrochemical complexes on the Spanish Mediterranean coast M.A. López-Navarro ¹ , V. Tortosa-Edo* ¹ , V. Castán Broto ² , ¹ Universitat Jaume I, Spain, ² University College London, UK | [WS28.16] Designing out waste - Experiences from Bang & Olufsen A. Bundgaard* ¹ , A. Remmen ¹ , B. Vroue ² , ¹ Aalborg University, Denmark, ² Bang & Olufsen, Denmark | [WS33.08] Industry eco-innovation strategies for process upgrading: Systemic limits of internalising externalities L. Levidow, Open University, UK | [WS34.08] POCACITO – Foresight for sustainable pathways towards liveable, affordable and prospering cities in a world context I. Kaltenegger, Joanneum Research Forschungsgesellschaft, Austria | | [WS36.08] Uncertain bottleneck problems in the cascade utilization of biomass M. Garbs*, J. Geldermann, University of Göttingen, Germany | |
| 12:05-13:05 | Lunch | | | | | | | | | |
| Rooms | Auditorium | Garbi | Llevant 1 | Llevant 2 | Llevant 3 | Llevant 4 | Mestral 1 | Mestral 2 | Mestral 3 | Mestral 4 |
| 13:05-14:05 | Workshop 31: CUT Through | Session 17: (Continued) | Workshop 32: (Continued) | Session 18: (Continued) | Workshop 28: (Continued) | Workshop 33: (Continued) | Workshop 34: (Continued) | Workshop 35: From Farm to Fork | Workshop 36: (Continued) | Workshop 38: NETWORK OF NETWORKS |
| 13:05-13:20 | [WS31.01] The power of cities: Exploring institutional change in leading sustainable cities | [O17.09] Interpretations of sustainable development in business models for sustainability - evidence from | [WS32.09] Social entrepreneurship in start-ups: Challenges and obstacles for training programmes | [O18.09] Promoting social development in Brazil's semiarid region through solar-thermal power plants L. Couto*, R. Soria, J. Portugal- | [WS28.17] DESIGN for environment and lean manufacturing: A relationship in product development cycle | [WS33.09] Sustainability diffusion: Maximising the rate of sustainability adoption K. Hader*, J.A. Garza-Reyes, | [WS34.09] Urban brownfield regeneration and energy transition in the built environment | [WS35.01] Towards a business driven sourcing model for sustainable smallholder supply: The case of black soybeans in Indonesia | [WS36.09] Life cycle assessment of a packaging recovery process from collected food waste | NETWORK OF NETWORKS |

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| | R. Huxley*, R. Gillard, <i>University of Leeds, UK</i> | Austrian companies R.J. Baumgartner*, R. Rauter, <i>University of Graz, Austria</i> | I. Molderez, <i>University of Leuven, Belgium</i> | Pereira, A. Szklo, A. Lucena, <i>Universidade Federal do Rio de Janeiro, Brazil</i> | M.J.A. Pinto Junior*, J.V. Mendes, <i>UFSCAR - Federal University of São Carlos - Campus Sorocaba, Brazil</i> | M.K. Lim, <i>The University of Derby, UK</i> | A. Mahzouni, <i>EPFL Institute of Technology and Public Policy, Switzerland</i> | A.R. Sjauw-Koen-Fa*, V. Blok, S.W.F. Omta, <i>Wageningen UR, The Netherlands</i> | D. Mosna, S. Spanu, G. Vignali*, <i>University of Parma, Italy</i> | |
| 13:20-13:35 | [WS31.02] Individual and organizational drivers of entrepreneurship in consumption: novel mental models to catalyze urban transformations D. Dentoni ¹ , G. Migliore ² , ¹ <i>Wageningen University, The Netherlands</i> , ² <i>University of Palermo, Italy</i> | [O17.10] An integrated perspective on sustainable business models and supply chains - applied to closed-loop models F. Lüdeke-Freund ¹ , S. Gold ² , N.M.P. Bocken ³ , ¹ <i>University of Hamburg, Germany</i> , ² <i>University of Nottingham, UK</i> , ³ <i>TU Delft, The Netherlands</i> | [WS32.10] Addressing social issues in limited resourced townships of South Africa: The case of Hubspace Khayelitsha A. Mpeqa ¹ , ¹ <i>University of Applied Sciences Northwestern Switzerland (FHNW), Switzerland</i> , ² <i>University of Hohenheim, Germany</i> | [O18.10] Sustainable small-scale development collaboration in West Kenya - the case study of Imani L.L. Versteynen, <i>Imani Belgium, Belgium</i> | [WS28.18] Better cooperation for circular economy through ecodesign L. Blomqvist ¹ , A. Carlén ¹ , C. Lopes ¹ , S. Elfving ¹ , C. Mattsson ¹ , E. Simonsson ¹ , ¹ <i>Swedish Energy Agency, Sweden</i> , ² <i>Swedish National Board of Housing Building and Planning, Sweden</i> , ³ <i>Swedish Environmental Protection Agency, Sweden</i> , ⁴ <i>Swedish Chemicals Agency, Sweden</i> | [WS33.10] Sustainability implementation - an innovation diffusion perspective K. Hader*, J.A. Garza-Reyes, M.K. Lim, <i>The University of Derby, UK</i> | [WS34.10] Visions become reality - Smart City areas in Vienna B. Lubitz-Prohaska, <i>Austrian Institute of Ecology, Austria</i> | [WS35.02] Food Scores: Modelling Information Flows to Reduce their Frequency and Severity? E.H. York*, A. Woodward, A. Druckman, <i>University of Surrey, UK</i> | [WS36.10] Potential of X-ray micro-computed tomography in the field of resource efficiency of wood T. Koddenberg*, H. Militz, <i>University of Göttingen, Germany</i> | NETWORK OF NETWORKS |
| 13:35-13:50 | [WS31.03] Governance of Urban Sustainability Transitions | [O17.11] Sourcing strategy in multinational enterprises An innovative | [WS32.11] The emergence of social business incubators: Evidences from the Italian case | [O18.11] Economic impact of different DHW alternatives on isolated micro-communities | | [WS33.11] A function of innovation system approach for analysing the | [WS34.11] Assessing the environmental sustainability with a co-benefits | [WS35.03] Food-print, the environmental cost of food: Conceptual contributions | [WS36.11] Resource recovery from high alkaline wastes: A multi-disciplinary | NETWORK OF NETWORKS |

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| | K. McCormick*, Y. Voytenko, O. Mont, <i>Lund University, Sweden</i> | business model for sustainable agroforestry C. Mark-Herbert*, B. Prejer, <i>Swedish University of Agricultural Economics, Sweden</i> | F. Giordano* ^{1,2} , A. Lanteri ³ , L. Michelini ¹ , ¹ <i>LU MSA University in Rome, Italy,</i> ² <i>SDA Bocconi School of Management in Milan, Italy,</i> ³ <i>Hult International Business School in London, UK</i> | D. Neves* ¹ , C.A. Silva ² , ¹ <i>Universidade de Lisboa, Portugal,</i> ² <i>Universidade de Lisboa, Portugal</i> | | roles of intermediaries in eco-innovation W. Kanda* ¹ , P.D.R. González ² , O. Hjelm ¹ , D. Bienkowska ¹ , ¹ <i>Linköping University, Sweden,</i> ² <i>Institute for Public Policy and Goods, Spain</i> | approach: A study of industrial sector in Baoshan District in Shanghai D. Wenbo, <i>Fudan University, China</i> | from an EXPO 2015 scientific conference E. Vagnoni, E. Campus, C. Serra, P. Duce*, <i>CNR IBIMET, Italy</i> | study of technical possibilities and political economic constraints P. Deutz*, H. Baxter, H.I. Gomes, D. Gibbs, W. Mayes, M. Rogerson, J.P. Atkins, A.J. Gregory, G. Midgley, <i>University of Hull, UK</i> | |
| 13:50-14:05 | [WS31.04] Getting to Post-carbon Resilient Cities through New Urban Imaginaries: Lessons from 2 international design visioning projects. C. Ryan*, I. Gaziulusoy, M. Trudgeon, <i>University of Melbourne, Australia</i> | [O17.12] Value creation and appropriation in economic, social and environmental domains L. Albareda* ¹ , P. Ritala ² , N. Bocken ³ , ¹ <i>Deusto University, Spain,</i> ² <i>Lappeenranta University of Technology, Finland,</i> ³ <i>Delft University of Technology, The Netherlands</i> | [WS32.12] Social Entrepreneurship and Sustainability: State of the art and future research J. Macke* ^{1,2} , J.A.R. Sarate ¹ , J. Domeneghini ¹ , ¹ <i>Faculdade Meridional (IMED), Brazil,</i> ² <i>Universidade de Caxias do Sul (UCS), Brazil</i> | [O18.12] Bioeconomy in Region Zealand, Denmark - approaches, challenges and perspectives B. Rasmussen, <i>Region Zealand, Denmark</i> | | [WS33.12] Firm's technological trajectory as a driver for eco-innovation in young SMEs F.J. Sáez-Martínez*, C. Díaz-García, A. González-Moreno, <i>University of Castilla-La Mancha, Spain</i> | [WS34.12] Effect of urea on growth and microcystins production of <i>Microcystis aeruginosa</i> R. Dai*, P. Wang, X. Wu, Y. Yan, <i>Fudan University, China</i> | [WS35.04] An infographic tool to promote healthier and sustainable food consumption: The nutritional and environmental double pyramid L.F. Ruini* ¹ , R. Ciati ¹ , L. Principato ² , M. Antonelli ³ , ¹ <i>Barilla G.e R. Fratelli S.p.A, Italy,</i> ² <i>La Sapienza University, Italy,</i> ³ <i>Roma Tre University, Italy</i> | [WS36.12] Inter organizational is adoption in the wood industry: Examining the role of industry characteristics S. Zander ¹ , ¹ <i>University of Göttingen, Germany,</i> ² <i>Research Training Group 1703, Germany,</i> ³ <i>Chair of Information Management, Germany</i> | NETWORK OF NETWORKS |
| 14:05-14:35 | Refreshment Break | | | | | | | | | |
| Rooms | <i>Auditorium</i> | <i>Garbi</i> | <i>Llevant 1</i> | <i>Llevant 2</i> | | <i>Llevant 4</i> | <i>Mestral 1</i> | <i>Mestral 2</i> | <i>Mestral 3</i> | <i>Mestral 4</i> |
| 14:35-15:35 | Workshop 31: (Continued) | Session 17: (Continued) | Workshop 32: (Continued) | Session 18: (Continued) | | Workshop 33: (Continued) | Workshop 34: (Continued) | Workshop 35: (Continued) | Workshop 36: (Continued) | Workshop 38: (Continued) |

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| 14:35-14:50 | <p>[WS31.05] Zabrze - In transition from most polluted to a green showcase M. Backman, <i>The Swedish-Polish Sustainable Energy Platform C/o IIEE at Lund University, Sweden</i></p> | <p>[O17.13] Product-service systems as sustainable business models: Theoretical and empirical findings M. Yang*, S. Evans, D. Vladimirova, M. Holgado, P. Rana, <i>University of Cambridge, UK</i></p> | <p>[WS32.13] Social entrepreneurship - Why yes? Why not? E. García-Uceda, J.L. Murillo-Luna*, <i>University of Saragossa, Spain</i></p> | <p>[O18.13] A corridor striving for sustainability - Reflecting upon PhD education at a Swedish university R. Feiz, P. Fenton, P. Frändegård, N. Johansson, W. Kanda, J. Matschewsky*, S. Mejia Dugand, S. Päivärinte, B. Wallsten, <i>Linköping University, Sweden</i></p> | | <p>[WS33.13] Measuring the Coordinated Development of Economy, Society, and Environment in Municipalities and Provinces of China Y. Ding*, Q. Yang, <i>Wuhan University of Technology, China</i></p> | <p>[WS34.13] The importance of inter-personal interaction in successful behaviour change programs - A study of six recycling schemes Y.Y. Huang*¹, M.K. Harder¹, ¹Fudan University, China, ²University of Brighton, UK</p> | <p>[WS35.05] The Barilla Sustainable Farming project - Promoting more sustainable durum wheat production through crop rotation and the use of a Decision Support System C. Ronchi¹, E. Ferrari¹, P. Meriggi², L.F. Ruini*¹, M. Antonelli³, ¹Barilla G.e.R. Fratelli S.p.A., Parma, Italy, ²Università Cattolica del Sacro Cuore, Italy, ³Roma Tre University, Italy</p> | <p>[WS36.13] Resource efficiency of bio-composite materials: Sustainability assessment of agricultural supply chain-A case study in central Italy F. Castellani*, J. Geldermann, <i>Georg-August-Universität Göttingen, Germany</i></p> | NETWORK OF NETWORKS |
| 14:50-15:05 | <p>[WS31.06] Cultural Capital Europe as a transformative agent for a city L. Lijzenga, J. Eijssen*, <i>University of Melbourne, Australia</i></p> | <p>[O17.14] Emerging business models for strong sustainable consumption in the fashion industry C. Lozano-Gómez*, M.A. López-Navarro, <i>University of Jaume I, Spain</i></p> | <p>[WS32.14] A non-governmental organization leading the path to green industry S. Elouardighi, <i>Virginia Tech, USA</i></p> | <p>[O18.14] Accelerating transitions to equitable and sustainable societies: Towards ethical existence for long term happiness L.P. Batuwitage*¹, T. Sugathapala², S. Peiris³, N. Cooray⁴, G. Batuwitage⁵, D. Huisingh⁶, ¹University of</p> | | <p>[WS33.14] The role of purchase tendencies data in the transformation of consumption in China C. Koch, <i>Wuhan University of Technology, China</i></p> | <p>[WS34.14] Investigating urban resource metabolism at different scales towards cleaner and more sustainable consumption patterns D.F. Civitillo, S. Viglia*, G. Cacciapuoti, S. Ulgiati, <i>Parthenope University of Naples, Italy</i></p> | <p>[WS35.06] Healthy nutrition fuelling healthy business: A literature review of nutritional intervention with sustainable business models K. Van Fossen*, S. Evans, <i>University of Cambridge Centre for Industrial Sustainability, UK</i></p> | <p>[WS36.14] Reducing product returns in online retail - the contribution of machine learning techniques P. Urbanke, <i>University of Göttingen, Germany</i></p> | NETWORK OF NETWORKS |

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| | | | | Colombo, Sri Lanka, ² University of Moratuwa, Sri Lanka, ³ Consultant-Sustainable Consumption and Production, Sri Lanka, ⁴ Business & Industry Development Services (Pvt) Ltd, Sri Lanka, ⁵ Sri Lanka Institute of Development Administration, Sri Lanka, ⁶ University of TN, USA | | | | | | |
| 15:05-15:20 | [WS31.07] Linking localised action to theoretical constructs: the design of a powerful practical planning tool for community-led recycling D.Y. Xu*, M.K. Harder, Fudan University, China | [O17.15] Business model of WEEE recycling based on internet: Typical cases in China L.S. Zuo ¹ , C. Wang* ¹ , L.H. Zhang ¹ , H.L. Yao ¹ , ¹ Central South University, China, ² University of Liverpool, UK | [WS32.15] Community-based business modeling on the level of industry stakeholders: The case of sustainability reporting M. Langenus*, M. Dooms, Vrije Universiteit Brussel, Belgium | [O18.15] Visions and actions to support societal transitions from being unsustainable to being sustainable: How can we build upon our diversity to achieve our common future? D. Huisingsh* ¹ , R. Lozano ¹ , ¹ University of Tennessee, USA, ² Utrecht University, The Netherlands | | [WS33.15] A system dynamics analysis of crowdfunding for sustainable entrepreneurial projects under Chinese context L. Chen* ¹ , J. Chen ¹ , K. Xie ² , ¹ Wuhan University, China, ² Wuhan University of Technology, China | | [WS35.07] Sustainable Smallholder Sourcing Models: Lessons from black soybeans in Indonesia and tomatoes in India' A.R. Sjauw-Koen-Fa*, V. Blok, S.W.F. Omta, Wageningen UR, The Netherlands | [WS36.15] Generating electricity from slaughterery residues. An environmental assessment. R. Santagata ¹ , M. Ripa* ¹ , S. Ulgiati ¹ , ² , ¹ Parthenope University of Naples, Italy, ² Beijing Normal University, China | NETWORK OF NETWORKS |
| 15:20-15:35 | [WS31.08] Highlighting urban | [O17.16] Niche development in market-based | | [O18.16] On the use of the 5D-sustainability | | | | WS35 | | NETWORK OF NETWORKS |

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| | <p>transformation possibilities with commuter buses in Shanghai H. Chen, <i>Fudan University, China</i></p> | <p>vs. grassroots citizen participation initiatives in photovoltaics S. Hatzl*¹, S. Seebauer², E. Fleiss¹, A. Posch¹, ¹<i>Institute of Systems Sciences, Innovation & Sustainability Research, Austria,</i> ²<i>Wegener Center for Climate and Global Change, Austria</i></p> | | <p>transition method - a case study R. Allais, <i>CNRS - Université de technologie de Troyes, France</i></p> | | | | | | |
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15:35-16:05 Close of Conference