Pre-Conference Week

WEDNESDAY 01 SEPTEMBER 2021

Sphera | Pre-Conference Workshop
11:00 – 12:30 CEST

Keynote
Enabling the Future: Is Net Zero Enough?

The race towards net zero emissions targets is in full swing. But is that enough to combat climate change and secure our future? What instruments are available to the business community to reach net zero and go beyond?

Speaker
Marc Binder, VP Global Sustainability Consulting at Sphera

Panel Discussion
Roadmap Toward Sustainability and ESG Excellence: How Technology, Expertise and Data Can Lead the Way

Sustainable transformation is at the top of the agenda for many companies. The right technology, data, and expertise can help drive efficiencies through synergies, thereby reducing risks and potential costs associated with this process. In this panel discussion, we will talk about how real-world companies are defining and maturing their sustainability programs by integrating sustainability technologies into core business areas.

Moderation: Emanuela Scimia Managing Director Italy and Director Consulting at Sphera and **Dr. Rajesh Singh** Managing Director India & Southeast Asia at Sphera

Speakers
Prabodha Acharya
Group Chief Sustainability Officer at JSW Group
Alessandro Furno
Technical Director at Bridgestone America
Harsha Reddy Joint
Vice President & Head of Sustainability at Indorama Ventures Pcl

Poster-Pitches | 12:45 – 13:30 CEST

DGNB | Pre-Conference Workshop
13:45 – 15:15 CEST

Why are buildings key for companies aiming to be carbon natural?

Many companies have set out to be carbon neutral by 2030. Business goals take this target into consideration. For the whole business to be carbon neutral, the focus on carbon neutral buildings is crucial. To maximise the contribution buildings can make, we need knowledge and tools such as the certification of buildings.

Speakers
Dr. Stephan Anders, Director of the DGNB Certification
Jürgen Utz, Director of the DGNB Academy

THURSDAY 02 SEPTEMBER 2021

PRé | Pre-Conference Workshop
11:00 – 12:30 CEST

Making LCA results count: how to easily create sector-specific solutions with SimaPro

At this session, you will learn more about the latest developments in SimaPro and will see practical examples of how to easily create revenue-generating sector-specific solutions.

Program
- SimaPro future vision, new features and latest developments
- Practical cases and examples of sector-specific solutions
- Q&A

Speakers
Anneke Haringsma, Sales & Partner Manager at PRé
Reinier Zwiep, Product Owner at PRé
Caspar Honée, Sustainability Solutions Architect at PRé

Poster-Pitches | 12:45 – 13:30 CEST

Fraunhofer IBP | Pre-Conference Workshop
13:45 – 15:15 CEST

GENERIS® – Life-cycle-oriented planning of buildings

The workshop shows the functionalities of the Generis software to generate building life cycle assessments and benchmarks in a targeted and efficient way.

Speakers
Michael Jaeger, Group Leader Sustainable Buildings at Fraunhofer IBP

Pre-Conference Week

FRIDAY 03 SEPTEMBER 2021

BASF | Pre-Conference Workshop
11:00 – 12:30 CEST

Strategies, approaches and technologies for the generation of high numbers of Product Carbon Footprints.

Achieving net zero CO_2 emissions by 2050 is a huge challenge for the chemical industry. For the steering of decarbonization carbon footprints help to get transparency. With a standardized methodology companies can identify improvement opportunities including their supply chains. Learn more about our new approach and discuss new opportunities.

Speakers
Dr. Christoph Jäkel, Head of Corporate Sustainability at BASF
Prof. Dr. Peter Saling, Director Sustainability Methods at BASF
Dr. Jan Schöneboom, Global Sustainability Care Chemicals at BASF

Poster-Pitches | 12:45 – 13:30 CEST

University of Stuttgart IABP | Pre-Conference Workshop 13:45 – 15:15 CEST

Sustainable product development by means of personalization – paradox or solution?

Personalization of products and services entails risks but also potentials for sustainability. During the product development process, it is crucial to take into account the future usage patterns/parameters and their variability. Even if the product itself is not personalized, a user-centred approach during the entire life cycle can unlock many potentials. Avoiding unnecessary functions and tailoring a product precisely to its user's needs can lead to optimized sustainability performance during its use. Moreover, by developing and offering personalizable products that meet the requirements of the respective user, companies can tap into new market opportunities and increase their competitiveness.
In this workshop we will look at the different opportunities of personalization and discuss this trend from an environmental point of view.

We will address the following questions:
- Which potentials can be unlocked through a user-centred personalization approach?
- How can we integrate and ensure sustainability during the entire process?
- What are the arising challenges and which tools can we use to tackle them?

In this interactive workshop you will get to know the broad spectrum of potentials in the context of personalization. We will discuss the current and future challenges you are facing and how science can contribute to solving some of the issues.

Speakers
Ann-Kathrin Briem, Sustainability expert and project manager at University of Stuttgart IABP
Daniel Ziegler, User Experience expert at Fraunhofer IAO

Poster-Pitches

WEDNESDAY, 01 SEPTEMBER – PRE-CONFERENCE WEEK

Towards social sustainability effective supply chains of innovative and established products: Defining the human wellbeing to support
Authors: Mathias Lindkvist[1], E. Ekener — [1]KTH Royal Institute of Technology

Indicators for Circular Economy: ICE-T Tool – Evaluation of Circular Economy implementation in a RTO (Research and Technology Organization)
Authors: Josua Guérid[1], E. Cor, S. Desrousseaux, A. Sperandio, E. Monnier — [1]Université Grenoble Alpes, CEA, Laboratory of Innovation for new Technologies for Energy and Nanomaterials (LITEN)

Towards Social Life Cycle Assessment Of Energy Systems – Case Study On Offshore Wind Farms From Companies' Perspective
Authors: Jérémie Lehmann[1], G. Bouillass, R. Fofack-Garcia, P. Pérez-López — [1]France Energies Marines / MINES ParisTech

Eco-efficiency Assessment of Pork production through Life Cycle Assessment and Product System Value in South Africa
Authors: Chule Qalase[1], K. Harding — [1]University of the Witwatersrand

Are thermodynamic based indicators the solution for assessing circularity of new buildings?
Authors: Diana E.G. Bizarro[1], M. Hauck — [1]TNO, The Netherlands Organization for Applied Scientific Research

A Life Cycle based approach for the assessment of Circular Economy strategies for Composite Construction Materials
Authors: Berfin Bayram[1], K. Greiff — [1]RWTH Aachen University, Dept. of Anthropogenic Material Cycles (ANTS)

Ex-ante LCA on an emerging electro-mass separation technology: The importance of the background system
Authors: Ben Maes[1], A. Audenaert, B. Craeye, M. Buyle — [1]University of Antwerp

Matching the Supply and Demand within the Circular Economy for Used Electrical and Electronic Equipment applying Condition Assessment
Authors: Sebastina Lawrenz[1], S. Rudolf, S. Blömeke, C. Herrmann, A. Rausch

[1]Technische Universität Braunschweig, Institute of Machine Tools and Production Technology

Ecosystem for reuse of automotive components
Authors: Hanna Nilsson-Lindén[1], E. Sundin, M. Zackrisson, J. Hildenbrand, C. Jonasson, V. Schaller, J. Kurilova, C. Kowalkowski, B. Nansubuga, P. Lundin

[1]RISE Research Institutes of Sweden AB

Life cycle assessment applied to exploration tools for pegmatites
Authors: Kate Smith[1], R. Pell, X. Yan, F. Wall

[1]University of Exeter

ReCircE – Digital Lifecycle Record for the Circular Economy. Transparent design of material cycles and optimization of waste sorting with the help of artificial intelligence
Authors: Tabea Hagedorn[1], A. Lopes, M. Vogelgesang, M. Pourjafarian

[1]Technical University of Darmstadt, Institute IWAR/ SuR, Department of Civil and Environmental Engineering Sciences

The study of LCA based indicators to evaluate the pressure on mineral resources in the building sector
Author: Nada Bendahmane[1]

[1]Centre Scientifique et Technique du Bâtiment – CSTB

Evaluating circularity potential of various recycling technologies for biocomposites waste from the aircraft industry
Authors: Rajesh Mehta[1], N. L. Miazza, T. van Harmelen, P. Ferrero Aguar

[1]TNO, The Netherlands Organization for Applied Scientific Research

Sustainability assessment of an innovative flotation technology for recovering valuable fine particles
Authors: Lucia Rigamonti[1], G. Cecere, H. Eltohamy

[1]Politecnico di Milano, Dept. of Civil and Environmental Engineering (DICA)

LCA results profiling and visualization applied to R&D in the Powder Metallurgy sector to facilitate information assimilation and eco-design actions
Authors: Emmanuelle Cor[1], T. Baffie, E. Monnier

[1]Université Grenoble Alpes, CEA, Laboratory of Innovation for new Technologies for Energy and Nanomaterials (LITEN)

Poster-Pitches

THURSDAY, 02 SEPTEMBER – PRE-CONFERENCE WEEK

Allocating Recycling Benefits in Life Cycle Assessment for Plastics: Categorization and Use of Product Property Specifications as per Value Chain
Authors: Milad Golkaram[1], R. Mehta

[1]TNO, The Netherlands Organization for Applied Scientific Research

Building material flow characterization allowing the realization of multi-scale circular economy studies: from research to practice
Authors: Rafaela Tirado[1,2], A. Mailhac, S. Laurenceau, G. Habert

[1]University Paris–East, Scientific and Technical Centre for Buildings (CSTB)
[2]ETH Zurich, Chair of Sustainable Construction, IBI

Socio-Environmental Capacity Building In Coal Mining Concession Area During Pandemic COVID-19: A sharing from Trubaindo coal mining, East Borneo, Indonesia
Authors: Dewi Permatasari[1], S. Herlambang, B. Cahyono, P. Rahadin, D. Sugiharto

[1]Environmental & Sustainability Professional – Indonesia

Impact of E-scooter on Sustainable Transportation in a German Student community: A Cohort Investigation
Authors: Rose Nangah Mankaa[1], J. Davis

[1]RWTH Aachen, Institute of Sustainability in Civil Engineering (INaB)

A Procurement Tool for streamlined Input-Output Sustainability Assessment
Antonia Quell[1]; Richard Scholz; Silvia Forin[1]

[1]WifOR Institute

Sustainable urban wastewater treatment incorporating LCA
Authors: Joana F.J.R. Pesqueira[1], M.F.R. Pereira, A.M.T. Silva

[1]Universidade do Porto, Laboratory of Separation and Reaction Engineering – Laboratory of Catalysis and Materials (LSRE-LCM)

Circular Business Model based on biofuels production from organic waste
Authors: Magdalena Muradin[1], P. Harazin, J. Kulczycka, R. Verhe, G. de Clercq

[1]Mineral and Energy Economy Institute of the Polish Academy of Sciences

Life Cycle Assessment and Circularity Indicators
Authors: Lucia Rigamonti[1], E. Mancini

[1]Politecnico di Milano, Department of Civil and Environmental Engineering (DICA)

Challenges to use the harmonized EPDs in the European market
Authors: Carolina Szablewski[1], C. Bolle, N. Adibi

[1]WeLOOP

Prospective life cycle assessment of the European cement industry
Authors: Maria Georgiades[1], I. Hussain Shah, R. J. Myers

[1]Imperial College London, Department of Civil & Environmental Engineering

Design and material based Sustainable Mobility – Copper vs. REE
Authors: Ladji Tikana[1], F. Nuno, T. Jezdinsky, M. Gonzalez

[1]Copper Alliance, International Copper Association

Developing a Circular Economy for the Data Centre industry – how the CEDaCI project contributes to sustainable decision making
Authors: Kristina Kerwin[1], D. Andrews, N. Adibi, B. Whitehead, K. Bienge, C. Szablewski, J. Chenadec, M. Ponugubati

[1]London South Bank University

Improving the sustainability of existing buildings in Nordic countries through energy system optimization
Authors: Vilppu Eloranta[1], A. Woszczek, A. Grönman

[1]LAB University of Applied Sciences

Supporting start-ups and SME with life cycle assessment – network based information and planning for change
Authors: Lars Gunnar Furelid Tellnes[1], M. F. Friedrich, A. Kjøniksen, C. Koch

[1]Østfold University College

Poster-Pitches

FRIDAY, 03 SEPTEMBER – PRE-CONFERENCE WEEK

Towards integration of LCA/LCC as a driver for Municipal decision-making in sustainable renovation of existing buildings
Authors: Haitham Abu-Ghaida[1], L. Andersen, S. Wandahl, A. Kamari — [1]Aarhus University, Department of Civil and Architectural Engineering

Prospective life-cycle assessment of geothermal district heating and cooling networks
Authors: Astu Sam Pratiwi[1], E. Trutnevyte — [1]University of Geneva, Faculty of Science, Institute for Environmental Sciences, Renewable Energy Systems Group

Investigating the integration between life cycle thinking, green chemistry principles and sustainability policies
Authors: Daniela Camana[1], S. Toniolo, A. Manzardo — [1]University of Padova, CESQA, Department of Industrial Engineering

LCA and distributive justice – a methodological approach of integration
Author: Nathanael Ko[1] — [1]University of Stuttgart, Institute for Acoustics and Building Physics, Department Life Cycle Engineering (GaBi)

On Conducting a Life Cycle Assessment of Network Traffic: A Qualitative Analysis of Current Challenges and Possible Solutions
Authors: Tova Billstein[1], A. Björklund, T. Rydberg — [1]IVL Swedish Environmental Research Institute

Balances of biogenic carbon accounting within and across lives of polymer product systems: A case study approach towards standardization of LCA and GHG accounting frameworks
Authors: Ananda Sekar[1], A. Menon — [1]SABIC Research and Technology

Optimized early-stage life cycle assessment of buildings – Developing a tool enabling early-stage parametric life cycle assessment
Authors: Maria Tjäder[1], H. Wallbaum, A. Hollberg, G. Ingelhag — [1]Chalmers University of Technology

Introducing the H2020 project ReCreate "Reusing precast concrete for a circular economy"
Author: Satu Huuhka[1] — [1]Tampere University, School of Architecture

Designing of Circular Economy solutions and sustainability of agricultural products with life cycle assessment
Author: Tomasz Nitkiewicz[1] — [1]Częstochowa University of Technology, Department of Business Informatics and Ecosystems

Sustainability Evaluation of Pyrolysis of Waste Mattresses: A Comparison with Alternative End of Life Treatments
Authors: Rajesh Mehta[1], M. Golkaram — [1]TNO, The Netherlands Organization for Applied Scientific Research

Life cycle management at Italmatch Chemicals – From centralized to decentralized urban mining for a game change in the phosphorus industry
Authors: Eleonora Lomazzi[1], M. Pasi, C. Galeano, M. Iorio, M. Rapf — [1]Italmatch Chemicals SpA

Advancing in the digitalization of data for a better analysis of electrical and electronic equipment
Authors: Laura Talens Peiró[1], X. i Durany — [1]Universitat Autònoma de Barcelona, Institut de Ciència i Tecnologia Ambientals (ICTA) SosteniPrA Research Group

Life cycle assessment of silicon metal by aluminothermic reduction
Authors: Elisa Pastor Vallés[1], Y. Ma, J.B. Pettersen — [1]Norwegian University of Science and Technology (NTNU), Faculty of Engineering, Department of Energy and Process Engineering, Industrial Ecology Programme

Parametric Life-Cycle Assessment and multi-objective design optimization
Authors: Vasileios Kalfountzos[1], P. Pasanen — [1]One Click LCA

Introductory analysis for conducting Life Cycle Assessment of Brazilian silk yarn
Authors: Olívia Toshie Oiko[1], S. M. B. D. Barcelos, R. Salvador — [1]Universidade Estadual de Maringá (UEM-Brazil)