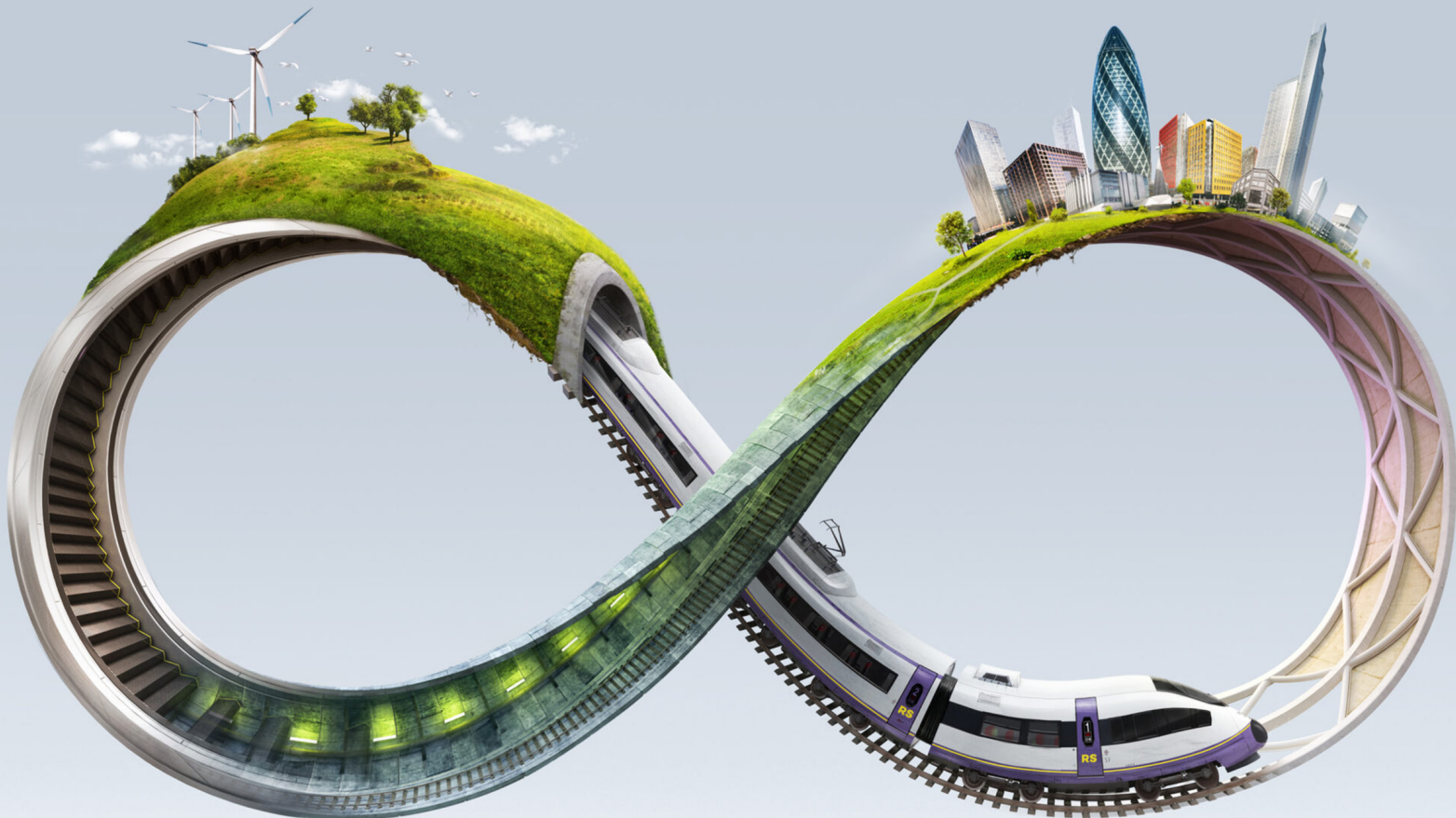


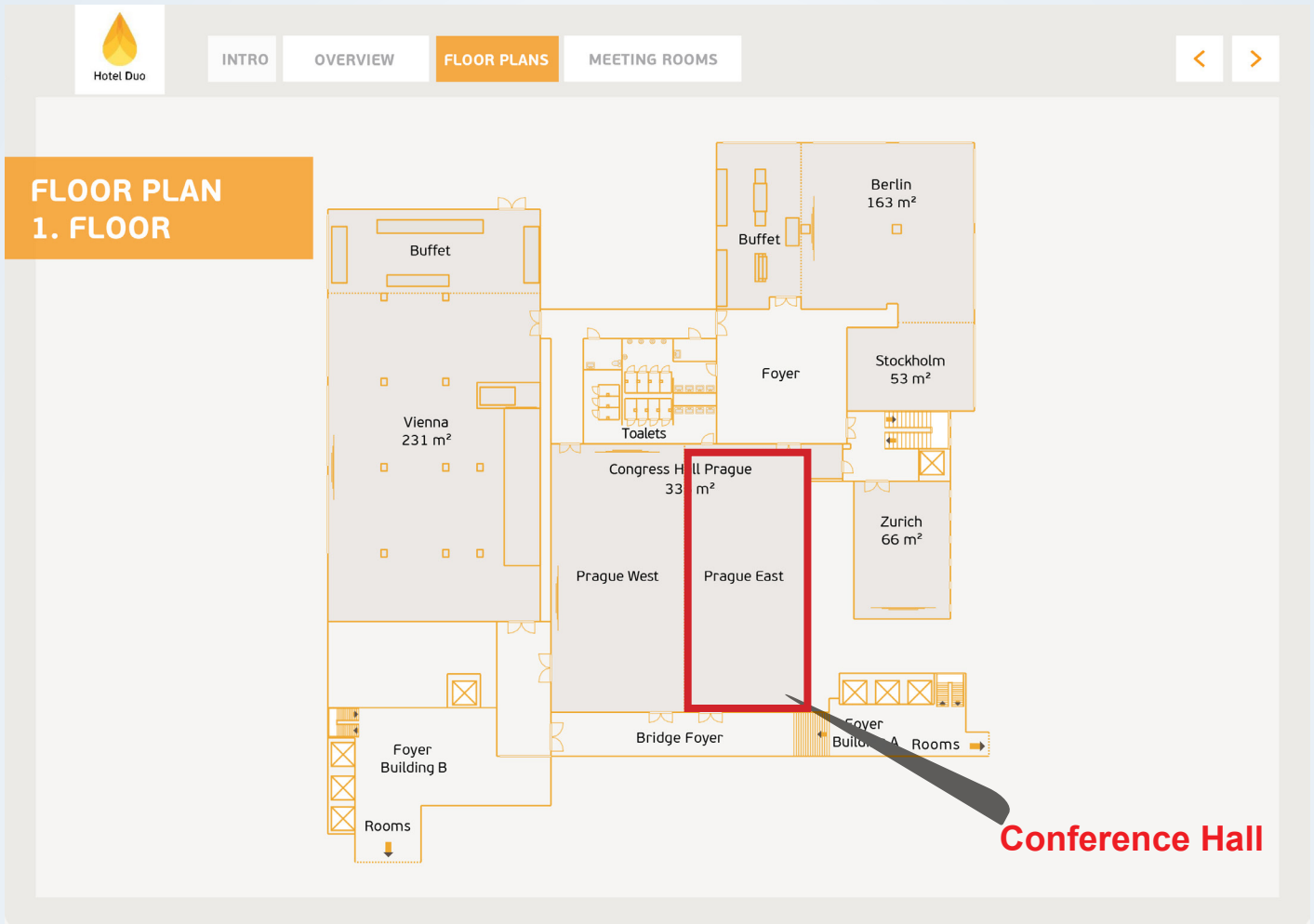
Joint Event

2nd International Conference on
**CLEANER PRODUCTION AND
CIRCULAR ECONOMY**
&
**ENERGY ENGINEERING AND
RESOURCE EFFICIENCY**

September 23-25, 2024 | Prague, Czech Republic



Floor Plan



Wi-Fi Details:

Username: Coalesce Conference

Password: Prague2024

Scientific Program

2nd International Conference on

Cleaner Production and Circular Economy

&

Energy Engineering and Resource Efficiency

Day 1 - September 23, 2024

Meeting Hall: Prague East

08:00 - 08:45 Registrations

08:45 - 09:00 Opening Ceremony and Introduction

Keynote Presentations

09:00 - 09:40 Stormwater Modeling: Recent Progress and Challenges

Erik R Christensen, University of Wisconsin-Milwaukee, USA

09:40 - 10:20 Cleaner Production and Circular Economy: Paradigm Shifts and New Directions

K Sandy Kyaw, Cardiff Metropolitan University, UK

Networking & Refreshments 10:20 - 10:40 @ Bridge

Oral Presentations

Session Chair **K Sandy Kyaw, Cardiff Metropolitan University, UK**

Sessions:

Circular Economy | Circular Bio-economy | Life Cycle Assessment | De-carbonization/ Low- Carbon Economy and Net Zero | Environmental Sustainability and Climate Change | Resource Efficiency and Value Chain | Renewable Energy

10:40 - 11:05 How Small Projects Shed Light on the Big Picture: Rural Biogas Projects Vs Global Environmental Degradation A Common Denominator

Jón Gudmundsson, Agricultural University of Iceland, Iceland

11:05 - 11:30 Development of a Methodological Framework for Circular Economy Business Model Valorization

Natalija Cudecka-Purina, BA School of Business and Finance, Latvia

11:30 - 11:55 Towards a Circular Economy for Bikes: AI-based Damage Detection for Repair Planning

Tobias Geger, Institute for Software and Systems Engineering, University of Technology Clausthal, Germany

11:55 - 12:20 The Circular Economy – Comparative Study of Different Countries on the Spectrum - Germany, Netherlands, and France, on One Side, and Romania and Poland, on the Side

TUDOROIU, Simina Claudia and TUDOROIU, Roxana Elena, University of Petrosani, Romania

12:20 - 12:45 Enabling a Circular Economy of Medicines with a Smart Packaging Environmental Sensor

James Gerrans, University of Reading, UK

Group Photo: 12:45 - 13:00

Lunch 13:00 - 14:00 @ Berlin

14:00 - 14:25 Circularity Assessment by Hierarchy of Disassembly: An Application of Circularity Indicators as a Design Tool for Architecture

Francesco Incelli and Massimo Rossetti, Iuav University of Venice, Italy

2nd International Conference on

Cleaner Production and Circular Economy & Energy Engineering and Resource Efficiency

14:25 - 14:50	Repair, Refurbish, Remanufacture, Resell? How to Rate Lifecycle Expenditure and Opportunities with the Help of Artificial Intelligence Robert Werner, Institute for Software and Systems Engineering, University of Technology Clausthal, Germany
14:50 - 15:15	Cogeneration Unit with a Pulse Detonation Engine Jirí Rusín, Technical University of Ostrava, Czech Republic
15:15 - 15:40	Identification of R. Erythropolis Bioadsorption Process and Cesium Accumulation Location Woong Kim, Kyungpook National University, South Korea
15:40 - 16:05	Testing Experience with GIT as a More Sustainable Solution Necmettin Mert Kocanali, Best Transformer Balıkesir, Türkiye
Networking & Refreshments 16:05 - 16:25 @ Bridge	
16:25 - 16:50	Does the Circular Economy Provide Solutions to the Challenges of Public Transport Electrification? Insights from the CE4CE Project Marcin Wolek, University of Gdansk, Poland
Poster Presentations @ 16:50 - 18:00	
Poster Judge	James Gerrans, University of Reading, UK
POSTER 01	The Northern Netherlands: Transformation of a Gas-Producing Region into a Forerunner in the Biobased Circular Transition Johanna Angela Thomann, Hanze University of Applied Science, The Netherlands
POSTER 02	Methane Production from the Pyrolysis-Methanation of Waste Polyethylene Terephthalate Plastic Maram Alotaibi, University of Leeds, UK
POSTER 03	Pyrolysis of Waste Plastics and Tires for Liquid Fuels and Chemicals Noof Alzahrani, University of Leeds, UK
POSTER 04	Application of Ligninolytic Enzyme Producing Bacteria for Enhanced Bioconversion of Lanzhou Lily Biomass into Bioethanol Kamran Malik, Lanzhou University, China
POSTER 05	Grapes Pomace and Potatoes Residues Potential of Bioethanol Production: Pre-Treatment Approach for Maximizing Bioethanol Shah Mudassar, Lanzhou University, China
POSTER 06	Facing up to the Non-Circularity of Plastics: Policies for Plastics that Address Human Health and Environmental Safety Concern Shambulova Malika, Hafencity University Hamburg, Germany

Day 1 Concludes followed by Certificate Felicitation

2nd International Conference on

Cleaner Production and Circular Economy & Energy Engineering and Resource Efficiency

Day 2 - September 24, 2024

Meeting Hall: Prague East

Keynote Presentations

Global Population: From Super-Malthus Behavior to Doomsday Criticality

09:00 - 09:40 **Aleksandra Drozd-Rzoska, Institute of High Pressure Physics Polish Academy of Sciences, Poland**

Agata Angelika Sojecka, University of Economics in Katowice, Poland

09:40 - 10:20 Sustainable Options for the End-Of-Life of Clean Energy Technologies

Anna Mazzi, University of Padova, Italy

Networking & Refreshments 10:20 - 10:40 @ Bridge

Oral Presentations

Session Chair **Jón Gudmundsson, Agricultural University of Iceland, Iceland**

Sessions:

Cleaner Energy Systems | Circular Economy | Sustainable Development and Sustainable Technology | Cleaner Production Economics | Cleaner Logistics and Supply Chain | Renewable Energy | Advanced Energy Systems | Cleaner and Responsible Consumption

10:40 - 11:05 Solar Harvesting via Multiple Transparent Photothermal Panels for Building Heating Utilities

Donglu Shi, University of Cincinnati, USA

11:05 - 11:30 Circular Economy in the Construction Sector. An Explorative Study about the Recycling of Single-Use Masks based on a Customer Survey and Business Expert Interviews

Daniela Ludin and Erika Mueller, Department of Economics, Heilbronn University, Germany

11:30 - 11:55 Circular Economy and Entrepreneurship in Europe: An Analysis of the Impact of Cultural Factors and Regulatory Framework

Francisco J Sáez-Martínez and Angela Gonzalez-Moreno, University of Castilla-La Mancha, Spain

11:55 - 12:20 Sustainability Awareness among Customers in the Service Sector. An Explorative Study Based on a Survey at a German Hair Salon

Daniela Ludin and Erika Mueller, Department of Economics, Heilbronn University, Germany

12:20 - 12:45 Improving Areas with a Circular Economy Approach for Plastic from the Target Environment. A Case Study

Marius Köder, Aalen University of Applied Science, Germany

12:45 - 13:10 The Cycle of Zero Fossil Methane

Suaad S Al-Zakwani, University of Birmingham, UK

Lunch 13:10 - 14:00 @ Berlin

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Cleaner Production and Circular Economy

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Energy Engineering and Resource Efficiency

14:00 - 14:25	Enhancing the Use of Reclaimed Building Materials: Supply Chain Actors' Attitudes Toward the Potential of a Mobile Application Aleksandra Dorota Kret-Grzeskowiak, Wrocław University of Science and Technology, Poland
14:25 - 14:50	Biodiesel Production Processes with Yeasts from a Sustainable Approach Alejandra Sánchez Solís, Universidad Iberoamericana, Mexico
14:50 - 15:15	Harnessing Energy from Descending Greywater in Tall Buildings Gideon Oron, Ben-Gurion University of the Negev, Israel
15:15 - 15:40	Reverse Logistics of Post-Consumer Glass Bottle in Brazil: A Case Study from the Perspective of the Street Collectors and the End Consumer Alaercio Nicoletti Junior, Production Engineering Department, Mackenzie Presbyterian University, Brazil
Networking & Refreshments 15:40 - 16:00 @ Bridge	
16:00 - 16:25	Development of Viable Hop Planting in Brazil - A Case Study Alaercio Nicoletti Junior, Production Engineering Department, Mackenzie Presbyterian University, Brazil
16:25 - 16:50	The Challenge of Reverse Logistics for Post-Consumer Glass Packaging in Brazil Alaercio Nicoletti Junior, Production Engineering Department, Mackenzie Presbyterian University, Brazil
16:50 - 17:15	The Use of Fine Pellet Grains and Sponge Iron Sludge to Produce Oxide Briquettes Based on Circular Economy Reza Bahaadini, Reza Rouholamini and Samad Abbaslou, Golgohar Iron and Steel Development Company, Iran
17:15 - 17:40	Optimizing DO Concentration in Conventional Activated Sludge Process to Alleviate Energy Consumption: Application of Particle Swarm Optimization algorithm Mpho Muloiwa, Tshwane University of technology, South Africa

Day 2 Concludes followed by Certificate Felicitations

2nd International Conference on

Cleaner Production and Circular Economy

&

Energy Engineering and Resource Efficiency

Day 3 - September 25, 2024

Oral Presentations

Session Chair **Erik R Christensen, University of Wisconsin-Milwaukee, USA**

Sessions: Cleaner Production and Advanced Manufacturing | Circular Economy | Green Technologies and Green Development | Resource Efficiency and Value Chain | Environmental Sustainability and Climate Change | Renewable Energy

09:00 - 09:25 Machine Learning as A Modeling Tool for Energy Consumption Planning Entity According to Product Characteristics for the Die-Casting Industry: Case Study

Mariel Alfaro-Ponce and Cristopher A Muñoz-Ibañez, Institute of Advanced Materials for Sustainable Manufacturing, Tecnológico de Monterrey, Mexico

09:25 - 09:50 Development of a Green Process to Recover Gold, Silver, and Copper from Electronic Waste in Ecuador

Alejandra Galarza, Extractive Metallurgy Department, Escuela Politécnica Nacional, Ecuador

09:50 - 10:15 Rejected Stream from Recycling of Multi-Layered Packaging Waste: Characterization, Opportunities for Circularity and Environmental Impacts Review

Carolina Bedoya Muñoz, Universidad Nacional de Colombia, Colombia

Networking & Refreshments 10:15 - 10:35 @ Bridge

10:35 - 11:00 Systems Based Assessment of Livelihood Vulnerability and Adaptation Strategies to Climate Change: Rajanpur District Pakistan

Muhammad Afzal, University of Southern Queensland, Australia

11:00 - 11:25 An Experiment Investigating the Potential of Utilizing a Phase Change Material to Enhance the Electrical Efficiency of a Solar Panel

Mohamed Bouzelmad, Ibn Zohr University, Morocco

11:25 - 11:50 Carbon Pricing in Germany's Road Transport and Housing Sector: Options for Reimbursing Carbon Revenues

Manuel Frondel, RWI Leibniz-Institut für Wirtschaftsforschung, Germany

E-Poster

E-Poster Tackling Climate Change Through Multi-Stakeholder Partnerships. Promoting SDG 17 to Combat Climate

Elena Bulmer, Antonio de Nebrija University, Spain

Day 3 Concludes followed by Certificate Felicitation and Vote of Thanks

Virtual Program

2nd International Conference on

Cleaner Production and Circular Economy & Energy Engineering and Resource Efficiency

Day 1 - September 23, 2024

Virtual Presentations - British Summer Time (BST)

11:00 - 11:30	The Possibilities of Bacterial Cellulose within Established Markets: The Scalability of the Process and the Versatility of the Material Patrizia Bolzan, Politecnico di Milano, Italy
11:30 - 12:00	Does Family Care Promote Clean Cooking Energy Choices for Older Persons? – Analysis In Light of Home-Based Care in Rural China Wei Huang, Sichuan Agricultural University, China
12:00 - 12:30	Hosting Capacity of Distribution Grid Alen Tatalovic, HEP ODS d.o.o. Elektroprimorje Rijeka, Croatia
12:30 - 13:00	Aspects of V2G Implementation in the Distribution System Mateo Kirincic, University of Rijeka, Croatia
13:00 - 13:30	Study of the Process of Structural Wood Reuse in a Deconstruction/ Reconstruction Operation Odran Lemaitre, Laboratoire d'Etude et de Recherche sur le Matériau Bois, Université de Lorraine, France
13:30 - 14:00	Environmental Sustainability and Intelligence as well as General Green Technologies Jinsong Wu, University of Chile, Chile
14:00 - 14:30	SRF Pyrolysis: Recovery Potential and its Role in the Circular Economy Jarudej Asingsamanunt, Imperial College London, UK
14:30 - 15:00	A Step Closer to Sustainability with In-Mold Electronics Stephan S Harkema, TNO at Holst Centre, Netherlands
15:00 - 15:30	Research and Development on Space Solar Power in Korea Joon-Min Choi, HanSeo Univeristy, South Korea
15:30 - 16:00	Optimizing the Reverse Supply Chain for Deconstructed Modular Building Components Hosna Ghorab, Concordia University, Concordia Institute for Information Systems Engineering, Canada
16:00 - 16:30	Understanding Dairy Livestock Farmers' Intention to Adopt Sociocultural Dynamics for Food Security using the Theory of Planned Behaviour Pareesh Kumar Sarma, Bangladesh Agricultural University, Bangladesh

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Note

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Act Now For a Greener Tomorrow*

