SARDINIA 2025

20th International Symposium on Waste Management, Resource Recovery & Sustainable Landfilling

13-17 October 2025
Forte Village Resort, Italy

PRELIMINARY PROGRAMME

(Updated on 17 July 2025)

Sardinia 2025 - Symposium Agenda

Landfilling | Plastics | General WM | WM in Developing Countries | Thermal treatment | Non technical issues | Wastewater and sewage sludge | Biomass management | Circular Economy of special and industrial waste | Italian Session

Monday, 13 October 2025

09:00 - 12:30	OPENING SESSION Chair: Raffaello Cossu							
15:30 - 17:00	SESSION A01 Circular Economy in the industrial sector Chair:	SESSION B01 Strategies for improving circularity of biowaste Chair:	SESSION C01 Leachate generation and control Chair:	SESSION D01 Circular Economy and wastewaters Chair:	SESSION E01 Large Language Models in waste management Chair:	SESSION F01 Workshop: Rethinking waste collection and transport: future paths Chair:	SESSION G01 Italian Session Chair:	SESSION AL01 Active Lab: BSF larvae for biowaste treatment (Part 1) Organised by: V. Grossule (IT), J.K. Tomberlin (US)
17:30 - 19:00	SESSION A02 Circular Economy strategies for the industrial waste Chair:	SESSION B02 Factors influencing food waste generation Chair:	SESSION C02 Optimization of landfill gas capture Chair:	SESSION D02 Valorization of sewage sludge Chair: J. Kumpiene (SE)	SESSION E02 Education: engaging students in Circular Economy Chair:	SESSION F02 Workshop: Zero-Waste Roadmap Game Chair: J. Singh (SE)	SESSION G02 Italian Session Chair:	

Tuesday, 14 October 2025

09:00 - 10:30	SESSION A03 Recovery of material resources from pyrolysis and gasification Chair:	SESSION B03 Food waste reduction / redistribution programmes Chair:	SESSION C03 Landfill methane oxidation by biosystems Chair:	SESSION D03 Recycling of industrial inorganic waste Chair:	SESSION E03 AI and digital solutions in waste management Chair:	SESSION F03 Workshop: Unlocking the black box: solutions for sustainable management of old landfills Chair: J. van der Heide (NL)	SESSION G03 Italian Session Chair:	SESSION AL03 Active Lab: Biodegradable jute cellulose-based sanitary pads for sustainable menstrual hygiene management (1) Organised by: M.A. Khan (BD)
11:00 - 12:30	SESSION A04 Biochar production by different thermal treatments Chair:	SESSION B04 Food waste monitoring and control in schools and households Chair:	SESSION C04 Landfill methane oxidation and emissions control Chair:	SESSION D04 Recycling of industrial organic waste Chair:	SESSION E04 Reuse of consumer products Chair:	SESSION F04 Workshop: Circular plastics and advanced composites Chair: F. Part (AT)	SESSION G04 Workshop: Gestione sostenibile dei rifiuti contenenti amianto: stato dell'arte e prospettive Chair: R. Cossu (IT)	SESSION AL04 Active Lab: Biodegradable jute cellulose-based sanitary pads for sustainable menstrual hygiene management (2) Organised by: M.A. Khan (BD)
15:30 - 17:00	FOCUS SESSION I - AI in Waste Management: curse or blessing? Moderator: Hua Zhang (CN) Panelists: Rainer Stegmann (DE) ... *to be integrated*							
17:30 - 19:00	SESSION A05 Circular Economy strategies for municipal waste Chair:	SESSION B05 PFAS in wastewater and sludge Chair:	SESSION C05 Thermal treatment of plastic waste Chair:	SESSION D05 Sorting processes Chair:	SESSION E05 AI and digital solutions for optimizing food waste management Chair: H. Zhang (CN)	SESSION F05 Workshop: Waste to hydrogen: state of art and perspectives Chair:	SESSION G05 Workshop: Best practices for optimizing landfill biogas management Chair: D. Agudelo-Romero (FR)	

Wednesday, 15 October 2025

09:00 - 10:30	SESSION A06 WEEE management strategies Chair:	SESSION B06 Composting: enhancement of process and compost quality Chair:	SESSION C06 Fate of bioplastics in biotreatment of waste Chair: R. Cossu (IT)	SESSION D06 Aftercare landfill behaviour Chair: R. Stegmann (DE)	SESSION E06 Circular Economy strategies: case studies Chair:	SESSION F06 Workshop: Quality related risks of recycled products Chair:	SESSION G06 Workshop: Low temperature thermal technologies: state of art and perspectives Chair:	SESSION AL06 Active Lab: AI for food waste monitoring systems (Part 1) Organised by: M. Yu, L. Secondi (IT)
11:00 - 12:30	SESSION A07 Treatment of WEEE Chair: S. Salhofer (AT)	SESSION B07 GHG emissions from composting Chair:	SESSION C07 Single-use plastics control Chair:	SESSION D07 CO2 emissions accounting and reduction in incineration plants Chair:	SESSION E07 Future of existing landfills Chair:	SESSION F07 Workshop: Biogenic waste in the circular bioeconomy: potentials and barriers Chair: C. Zafiu (AT)	SESSION G07 Workshop: Efficiency of WM policies in Universities Chair: M.C. Lavagnolo, G. De Feo (IT)	SESSION AL07 Active Lab: AI for food waste monitoring systems (Part 2) Organised by: M. Yu, L. Secondi (IT)
15:30 - 17:00	FOCUS SESSION II - The future of landfills: sustainable strategies, EU directives, and long-term roles Moderator: Raffaello Cossu (IT)							
17:30 - 19:00	SESSION A08 Recycling of lithium batteries Chair:	SESSION B08 Anaerobic digestion: additives for process enhancement Chair:	SESSION C08 Contamination and environmental risks in landfilling Chair:	SESSION D08 Cost-effective technologies for wastewater treatment Chair: V. Grossule (IT)	SESSION E08 Circular Economy strategies in Developing Countries Chair:	SESSION F08 Workshop: How to achieve climate neutrality in landfilling Chair: M. Ritzkowski (DE)	SESSION G08 Workshop: Communication Chair:	

Sardinia 2025 - Symposium Agenda

Landfilling | Plastics | General WM | WM in Developing Countries | Thermal treatment | Non technical issues | Wastewater and sewage sludge | Biomass management | Circular Economy of special and industrial waste | Italian Session

Thursday, 16 October 2025

09:00 - 10:30	SESSION A09 **Textile waste management strategies** Chair:	SESSION B09 **Anaerobic digestion: strategies for process optimization** Chair:	SESSION C09 **Aerated landfills** Chair:	SESSION D09 **Fly + Bottom ashes quality treatment** Chair:	SESSION E09 **Landfilling in Developing Countries: state of art and opportunities** Chair:	SESSION F09 **Workshop: Solid and liquid waste and water management in new city quarters** Chair: R. Stegmann (DE)	SESSION G09 **Workshop: From waste to value battery: success factors for an efficient take-back system for batteries** Chair: N. Wieczorek (DE)
11:00 - 12:30	SESSION A10 **Textile recycling** Chair:	SESSION B10 **Digestate management for resource recovery** Chair:	SESSION C10 **Satellite and other innovative landfill gas emissions monitoring** Chair:	SESSION D10 **Fly ashes utilization** Chair:	SESSION E10 **Waste Management issues in Developing Countries** Chair:	SESSION F10 **Workshop: GHG emissions and climate change in WM** Chair:	SESSION G10 **Workshop: Batteries in the electromobility sector: state of art, perspectives and sustainability** Chair:
15:30 - 17:00	**FOCUS SESSION III - How to achieve EU textile recycling targets** Moderator: *to be confirmed*						
17:30 - 19:00	SESSION A11 **Quality and costs in plastic recycling chain** Chair:	SESSION B11 **Resource recovery from insects** Chair:	SESSION C11 **Circular Economy in construction sector** Chair:	SESSION D11 **Drone based monitoring of landfill surface emissions** Chair:	SESSION E11 **CO2 emissions reduction in Circular Economy** Chair:	SESSION F11 **Workshop: IWWG TG PFAS: PFAS removal from contaminated matrices** Chair: I. Carabante (SE)	SESSION G11 **Workshop: Sustainable management of waste containing asbestos: state of art and future perspectives** Chair: R. Cossu (IT)

Friday, 17 October 2025

09:00 - 10:30	SESSION A12 **Microplastic contamination** Chair:	SESSION B12 **Photovoltaic recycling** Chair:	SESSION C12 **Emission potential of construction materials** Chair:	SESSION D12 **Management of sewage sludge and dredged materials** Chair:	SESSION E12 **Workshop: IWWG TG CLEAR: Methane oxidation systems in landfills** Chairs: J. Gebert (NL), M. Huber-Humer (AT)	SESSION F12 **IRACE Workshop: Circular Economy performance indices** Chair: M. Frey (IT)	SESSION G12 **EU Workshop: Closing knowledge gaps on PFAS degradation in thermal waste and remediation systems** Chair: T. Rashwan (UK)	SESSION AL12 **Active Lab: BSF larvae for biowaste treatment (Part 2)** Organised by: V. Grossule (IT), J.K. Tomberlin (US)
11:00 - 12:30	SESSION A13 **IRACE Session: Health related issues** Chair: N. Fraeyman (BE)	SESSION B13 **Biomass valorization: energy and products** Chair:	SESSION C13 **Lightweight plastic - Packaging** Chair:	SESSION D13 **Landfill monitoring by using different techniques** Chair:	SESSION E13 **Phosphorous recovery from sewage sludge** Chair:	SESSION F13 **Workshop: Use of C&D waste in cement industry** Chair:		
15:30 - 17:00	**FOCUS SESSION IV AND CLOSING PRESENTATION** **Advancing the Circular Economy - What still needs to be done?** Moderator: Marion Huber-Humer (AT) Panelists: Marco Frey (IT) ... *to be integrated*							

Poster Session - from 13 to 17 October 2025

09:00 - 19:00	**POSTER PRESENTATIONS** Available at all times throughout the conference.

SESSION OP / / 13th October 2025 09:00 -12:30
OPENING SESSION
Chair / *Presidente*: Raffaello Cossu (IT)

9:00 - 10:30 / Welcome Addresses:

- Raffaello Cossu, *University of Padova (IT)*
- Marion Huber-Humer, *BOKU University (AT)*
- Pinjing He, *Tongji University (CN)*
- Jurate Kumpiene, *Luleå University of Technology (SE)*
- Rainer Stegmann, *Hamburg University of Technology (DE)*
- Cristina Trois, *IWWG President (ZA)*
- Paolo Russo, *President of Tavolo di Roma (IT)*
- Rosanna Laconi, *Regional Councilor for the Environment, Sardinia (IT) - to be confirmed*

Opening Lecture:

- Waste and Cinema
  Matilde Nardelli, University of West London - to be confirmed
  or
- Waste and Biodiversity
  Matthias Glaubrecht, Evolutionary Biologist - to be confirmed

10:30 - 11:00 / Coffee Break

11:00 -12:30 / Introductory Lectures:

- Development of the Sardinia Symposia over the Years
  Raffaello Cossu (IT)

- Milestones in Waste Management over the Past Forty Years
  Rainer Stegmann (DE)

- Environmental Aspects of Waste Management During the Green Transition – The Future of Waste Management in a Fossil-Free Society
  Thomas Hans Christensen, Technical University of Denmark (DK)

- Guest Country Lecture: South Africa
  Cristina Trois, University of Stellenbosch (ZA)

- Presentation of the IWWG Waste Vision 2100 Award and the 2025 Winner

SESSION A01 / / 13th October 2025 15:30 -17:00
CIRCULAR ECONOMY IN THE INDUSTRIAL SECTOR
Chair / *Presidente*: TDB

T. Waseem, M. Schmidt, N. Schnurrenberger, S. Griza, A. Gottlieb, D. Vollprecht (DE)
Internal recycling of iron foundry dusts using silicon carbide briquettes

C.M. Llamedo, D.R. Jove, L. Megido, Y. Fernández-Nava, F. Afshari, L. Alcalá, J. Rodríguez-Iglesias (ES)
Blast furnace slag valorization as fluoride specific adsorbent in tertiary treatment of industrial wastewater and its comparison with ionic exchange performance

M. Mladenov (BG)
Analytical characteristics of a method for determining zinc in waste from galvanizing factories

SESSION A02 / / 13th October 2025 17:30 -19:00
CIRCULAR ECONOMY STRATEGIES FOR THE INDUSTRIAL WASTE
Chair / *Presidente*: TBD

B. Kopacek (AT)
Circular Economy Business Models and their practical application in different industrial sectors

M. Sandberg, M. Zywalewska, K, Granström (SE)
Circular Nutrient Recovery from Pulp and Paper Residues for Sustainable Forest Growth and Climate Mitigation

D. Panepinto, M. Ravina, M. Brignone, M. Zanetti (IT)
Consequences and risk modelling of Natech in industrial environments

M. Pettersson, O. Johansson (SE)
Mining Waste Recycling - The establishment of a Circular Industrial Park

M. Patel, M. Peces, D. Villa-Gomez, I. Pikaar, J. Vaughan, W.P. Clarke ()
MSW as a carbon source in mineral processing and in acid mine drainage treatment

SESSION A03 / / 14th October 2025 09:00 -10:30
RECOVERY OF MATERIAL RESOURCES FROM PYROLYSIS AND GASIFICATION
Chair / *Presidente*: TBD

S. Li, B. Yuan, Z. Duan, M. Zhang, J. Du, Y. Wen (CN)
Polycyclic aromatic hydrocarbon derivatives during pyrolysis of textile dyeing sludge

A. Amiza, C. Torri (IT)
Development of Gas Fermentation system by using HTB approaches for the obtainment of sustainable biomaterials

K. Ziegler-Rodriguez, I. Josa, L. Castro, H. Escalante, J. Jaimes-Estévez, M. Garfí (ES)
Environmental and economic Life Cycle Assessment of low-tech digester and gasification technologies in small-scale farms

SESSION A04 / / 14th October 2025 11:00 -12:30
BIOCHAR PRODUCTION BY DIFFERENT THERMAL TREATMENTS
Chair / *Presidente*: TBD

H. Gohar, G. Beggio, M. Schiavon, M.C. Lavagnolo (IT)
Charazterization of agro-industrial wastes for on-site pyrolysis to produce energy and biochar: a path to circular bioeconomy

N.B. Abdullah, T. Ida (JP)
Densification of buckwheat husk into bio-coke after torrefaction pre-treatment and its properties

F. Khodaparastan, T. Rashwan, J. Bowen, C. Switzer, G.P. Grant, J.K. Brown, M.A.B. Zanoni (GB)
Understanding gas emissions from biochar production via smouldering combustion

H.K. Westrum (NO)
Thermal Remediation of Contaminated Soil Using SoilSteam Technology: A Sustainable Approach to Soil Recovery

SESSION A05 / / 14th October 2025 17:30 -19:00
CIRCULAR ECONOMY STRATEGIES FOR MUNICIPAL WASTE
Chair / *Presidente*: TBD

R. Kakatkar, M. Soliman, R. Fiorio, K. Ragaert (NL)
From recyclates to products: A holistic cost perspective for circular product development

R. Kopecká, M. Hrad, M. Huber-Humer (AT)
Temporary Material Hubs - An innovative concept to foster Circular Economy

J. Singh (SE)
Implications of transitioning to a sustainable circular (bio)economy for managing municipal solid organic waste in the contexts of the West and the East

P. Beigl, R. Ottner (AT)
How much is (still) in it? Realistically recoverable materials from municipal solid waste in Austria

SESSION A06 / / 15th October 2025 09:00 -10:30
WEEE MANAGEMENT STRATEGIES
Chair / *Presidente*: TBD

S. Salhofer, S. Soudachanh (AT)
What is state-of-the art in reuse und repair of electronics? An analysis of the sector in Austria and Europe

S. Christaller, S.I. Olsen, Ricardo Gabbay de Souza (DK)
Sustainable Pathways for Reducing Electronic Waste: Ecodesign, Design for Repair, and Repair Strategies for Extended Product Lifecycles

G.D. Pivari, A. Giacomelli, L. Mascheretti (IT)
Overcoming Systemic Barriers in WEEE End-of-Life Management for the Recovery of REE Permanent Magnets

L. Natale, S. Rovetta, F. Masulli, M. Mohsin (IT)
The VALOR Project - VALORization of the Reuse and Treatment of Waste Electrical and Electronic Equipment

SESSION A07 / / 15th October 2025 11:00 -12:30
TREATMENT OF WEEE
Chair / *Presidente*: Stefan Salhofer (AT)

F. Galli, J.C. Morais, J. De Tommaso, C. Bruel (CA)
Hydrothermal treatment of electronic waste as an alternative to oxidative elimination of plastics

R.K. Benmammar, Z. Bouberka, C. Malas, V. Mundlapati, A. Barrera, J.-N. Staelens, Y. Carpentier, M.Ziskind, C. Focsa, P. Supiot, C. Foissac, U. Maschke (FR)
Transforming contaminated plastics from WEEE: innovative irradiation approaches

M. Peer, T. Fehn, A. Hofmann, B. Berninger (DE)
Chemical recycling of PVC-containing plastic waste for LED recycling

L. Wang, B. Zhang (CN)
One-step Gallium extraction from waste GaN via mechanochemically induced oxidation

SESSION A08 / / 15th October 2025 17:30 -19:00
RECYCLING OF LITHIUM BATTERIES
Chair / *Presidente*: TBD

A. Barrera, C. Binet, I. Benabela, P. Supiot, C. Foissac, U. Maschke (FR)
Development of gel polymer electrolytes using ultraviolet radiation for the eco-friendly design of Li-ion batteries

B. Zhang, L. Wang, C. Zeng (CN)
Recycling of spent lithium-ion batteries via sulfidation shock

C. Zeng, L. Wang, B. Zhang, J. Li (CN)
Synergistic recycling of spent LiFePO4 batteries using chromium-plating wastewater: a self-driven approach for selective leaching and dual waste valorization

C. Rutkowski, T. Nigl, R. Pomberger (AT)
Revealing the inconsistencies: Does the Lithium-Ion Battery Recycling Needs Unified Analytical Approaches?

SESSION A09 / / 16th October 2025 09:00 -10:30
TEXTILE WASTE MANAGEMENT STRATEGIES
Chair / *Presidente*: TBD

P. Caldarelli, V. Bresci, G. Lucifora (IT)
Traccia-TO: A Scalable Model for Improving Textile Waste Collection and Citizen Engagement in European Cities

F.S. Rahaman, M.S. Jahan, Md.L. Rahman, Md.S. Rahaman, M.A. Khan (BD)
Circular Economy for textile industry: a sustainable model for waste reduction

M.S. Rahaman, M.S. Hossen, M.M.R. Khan, S. Arefin, M.A. Khan (BD)
Introducing jute caddies and cotton blended yarn in apparel industry: turning waste into valuable product

Md. A. Rahman, F. Khan, Mst. F. Rahman Zuthi, S. M. Farzin Hasan, E. Kraft, T. Das, N. Das, A. Hoque, S. Kumar Pal (BD)
Assessing Sustainable Waste Management Strategies for Jute as a Plastic Alternative in Bangladesh: A Life Cycle Assessment Perspective on End-of-Life Scenarios

V. Rossi, H. Logan, A. Damgaard (DK)
Recycling potential of separately collected post-consumer textile waste in Denmark

SESSION A10 / / 16th October 2025 11:00 -10:30
TEXTILE RECYCLING
Chair / *Presidente*: TBD

S. Rosenbusch, A. Bartl (AT)
Green Chemistry in Textile Recycling

N. Depope, W. Ipsmiller, A. Bartl (AT)
Recycled polyester from polyester/cotton textile waste – A combined green solvent and thermal analysis approach

F. Fabroni ()
LIFE RE-TIGHTS - Provide an innovative circular and sustainable solution or worn-out tights management

I. Lange, E. Kraft (DE)
Life Cycle Assessment of Chemical Recycling Technologies for Blended Textiles: A Scoping Study

A. Bartl, W. Ipsmiller, N. Depope, C. Schimper, S. Rosenbusch (AT)
Textile Recycling: Essential, But Not Enough!

SESSION A11 / / 16th October 2025 17:30 -19:00
QUALITY AND COSTS IN PLASTIC RECYCLING CHAIN
Chair / *Presidente*: TBD

C. Barretta, M. Messiha, L. Meinhart, B. Lechner, J. Geier, M. Bredács, E. Helfer, G. Oreski (AT)
Degradation of high-density polyethylene (HDPE) and its influence on properties of recyclates

M. Molenbuur, M.C.P. van Eijk, J. Harm Urbanus, H. Diepenmaat, K. Ragaert (NL)
Perceptions and alignment on quality along the circular plastics packaging material chain

B. Hauge (DK)
New skills required for circular transitions: organizational learnings in five Danish companies from introducing recycled plastic in a range of products

SESSION A12 / / 17th October 2025 09:00 -10:30
MICROPLASTIC CONTAMINATION
Chair / *Presidente*: TBD

V. Paramá-Pérez, C. Lores-Fernández, E. Roldán-Álvarez, S. Santorio, A. Taboada-Santos, C.M. Castro-Barros, L. Rodríguez-Hernández (ES)
Assessment of the fate of microplastics in wastewater treatment plants

L. Selleck, S. Wagland, F. Coulon, D. Beriro (GB)
Presence of microplastics in UK landfills and their role in the mobility of metals

D. Sánchez-Mata, J.A. Villamil, J. Romero, E. Tomás-Pejó (ES)
Influence of different Microplastic concentrations on Methane Production from the Organic Fraction of Municipal Solid Waste

R. Ottner, S. Lenz, G. Obersteiner (AT)
Microplastic Analysis from Different Sampling Methods in Danube Water

C.A. Cossu, V. Poli, L. Litti, M.C. Lavagnolo (IT)
Presence and characterisation of microplastics in wildlife organs across diverse South African ecosystems

S. Kanwal Memon, V. Poli, L. Litti, M.C. Lavagnolo (IT)
Advancing microplastic detection: a review of portable raman spectroscopy for environmental monitoring

SESSION A13 / / 17th October 2025 11:00 -12:30
IRACE SESSION: HEALTH RELATED ISSUES
Chair / *Presidente*: Norbert Fraeyman (BE)

IRACE is a newly established International Research Association on Circular Economy, officially founded on May 9, 2025. Its aim is to bring together individuals - academics, industry professionals, entrepreneurs, institutions, and associations - from diverse disciplines to advance the Circular Economy in a constructive and integrated manner. The idea of IRACE has already received strong support, with 73 experts from 23 countries and representing 18 disciplines (including Agronomy, Architecture, Biology, Chemical Engineering, Chemistry, Ecology, Industrial Biotechnology, Geology, Law, Material Science, Medicine, Pharmacology, Physics, Political Science, Sociology, Electrical Engineering, Environmental Engineering, and Wastewater Engineering), endorsing its creation.

M. Ferrante (IT)
Overview on impacts on health by different waste management technologies (CIRS Report)

M. Horvat, J. Snoj Tratnik, D. Mazej, A. Alilovi?, M. Jagodic Hudobivnik, I. Falnoga, D. Kocman (SI)
Participatory Research on Human Biomonitoring and Environmental Impact of Co-Combustion of Waste in Cement Plants

S. Ahmed, T.L. Gladding, C. Boardman (GB)
Prevalence of antimicrobial-resistance in food waste and its potential for public health transmission as a bioaerosol

W. Saad, J. Zeiater, L. Halawy, D. Batlouni, C. Massoud, G. Saad, A. Milane (LB)
Innovative strategies for pharmaceutical waste management: pyrolysis, immobilization, and behavioral interventions

SESSION AL01 / / 13th October 2025 15:30 -17:00
ACTIVE LAB: BSF LARVAE FOR BIOWASTE TREATMENT (PART 1)
Chair / *Presidente*: Valentina Grossule - University of Padua (IT), Jeffery K. Tomberlin - Texas A&M University (US)

In the context of the Circular Economy, the use of Black Soldiers Fly (BSF) for biowaste treatment represents a promising alternative to conventional biological processes, for either managing the waste and providing high value resources in term of materials and energy. Indeed, in the larval stage BSF are capable of metabolising and stabilising huge amounts of putrescible waste, transforming it into valuable biomass rich of proteins and fats, suitable for the direct use as animal food or for production of biorefinery products, such as proteins and, biodiesel, lubricants, chitin and chitosan, antimicrobial peptides.
The active lab aims at providing basics knowledge of the BSF larvae and on their use for biowaste treatment, including designing, feed quality, control parameters etc.
Practical activity will be divided into two parts:

- **Part 1**: set up of small-scale reactors for treatment of different biowaste, at the beginning of the conference (Monday, 13 October, 15:30 - 17:00). **The reactors will be kept in operation and can be visited throughout the whole conference**.
- **Part 2**: closure of the test at the end of the conference with larvae separation and performance assessment (Friday, 17 October, 9:00 - 10:30).

SESSION AL03 / / 14th October 2025 09:00 -10:30
ACTIVE LAB: BIODEGRADABLE JUTE CELLULOSE-BASED SANITARY PADS FOR SUSTAINABLE MENSTRUAL HYGIENE MANAGEMENT (PART 1)
Chair / *Presidente*: Mubarak Ahmad Khan - Echocells Research Lab, Echotex Limited (BD)

This interactive session explores a groundbreaking innovation in menstrual hygiene management that merges material science with environmental responsibility.

Part 1 will delve into the conceptual and technical foundation—addressing the environmental impact of conventional products and introducing a sustainable alternative based on jute-derived cellulose. Participants will engage with presentations on the transformation of natural fibers into viscose, biopolymer films, and superabsorbent components, followed by a live demonstration of the multi-layered sanitary pad prototype—surface layer, core, and backing. Environmental considerations such as biodegradability, flushability, and sterilization techniques will be highlighted.

Part 2 will present clinical evaluation results from trials led by Icddr,b, assessing comfort, safety, and user acceptability. An overview of the manufacturing process willl highlight the scalable, cost-effective techniques for mass production using existing textile infrastructure. In the hands-on **Interactive Design Lab**, participants will examine materials, co-develop application models, and explore use-case adaptations.
The session concludes with an open discussion on user feedback, challenges in adoption, policy implications, and global replication potential.

This lab fosters interdisciplinary collaboration among environmental scientists, material engineers, healthcare professionals, and policymakers—paving the way for impactful deployment in under-resourced communities globally.

SESSION AL04 / / 14th October 2025 11:00 -12:30
ACTIVE LAB: BIODEGRADABLE JUTE CELLULOSE-BASED SANITARY PADS FOR SUSTAINABLE MENSTRUAL HYGIENE MANAGEMENT (PART 2)
Chair / *Presidente*: Mubarak Ahmad Khan - Echocells Research Lab, Echotex Limited (BD)

This interactive session explores a groundbreaking innovation in menstrual hygiene management that merges material science with environmental responsibility.

Part 1 will delve into the conceptual and technical foundation—addressing the environmental impact of conventional products and introducing a sustainable alternative based on jute-derived cellulose. Participants will engage with presentations on the transformation of natural fibers into viscose, biopolymer films, and superabsorbent components, followed by a live demonstration of the multi-layered sanitary pad prototype—surface layer, core, and backing. Environmental considerations such as biodegradability, flushability, and sterilization techniques will be highlighted.

Part 2 will present clinical evaluation results from trials led by Icddr,b, assessing comfort, safety, and user acceptability. An overview of the manufacturing process willl highlight the scalable, cost-effective techniques for mass production using existing textile infrastructure. In the hands-on **Interactive Design Lab**, participants will examine materials, co-develop application models, and explore use-case adaptations.
The session concludes with an open discussion on user feedback, challenges in adoption, policy implications, and global replication potential.

This lab fosters interdisciplinary collaboration among environmental scientists, material engineers, healthcare professionals, and policymakers—paving the way for impactful deployment in under-resourced communities globally.

SESSION AL06 / / 15th October 2025 09:00 -10:30
ACTIVE LAB: AI FOR FOOD WASTE MONITORING SYSTEMS (PART 1)
Chair / *Presidente*: Mengting Yu, Luca Secondi - University of Tuscia (IT)

This active lab is designed as an extension to the oral presentation *"AI and Food Sharing: Revolutionizing Food Waste Tracking and Mitigation" (*scheduled in **Session E05**), which leverages AI and computer vision technologies to automate the precise quantification and identification of food waste in real-life cases. We aim to provide maximum engagement with participants and offer a hands-on opportunity for those interested in AI technology applications, food waste, and data science. The lab will demonstrate the application of AIpowered food waste identification and quantification. Moreover, each participant can expect to gain practical knowledge about how to build a simple food waste tracking and monitoring system. We will provide a few hardware sets for testing, open-source AI models, and programming codes.
Through this active lab, we expect participants to become more familiar with AI and computer vision technologies that can be used to identify and quantify food waste at the consumer level.
The activities that will be carried out in this active lab are:

- **Pre-lab**: All confirmed participants will be requested to contribute to the data collection of this lab. We will communicate with each participant to submit some food (leftover) images and the respective measured weight by email. Those images will be merged with the existing database and will be used for AI applications and data analysis during the lab.
- **Presentation**: A short presentation will cover the topics of consumer food waste, food waste quantification and composition, and digital innovations for food waste monitoring (e.g. AI technologies).
- **Training**: We will deliver a full training on how to build a food waste tracking and monitoring system with AI and computer vision technologies. Participants will work in small groups and be provided with a set of hardware, and they will learn how to use Python to program the automatic monitoring system.
- **Analysis**: All participants will use Excel, Python, or R Studio to carry out statistical analysis on the data elaborated during the workshop, evaluating the accuracy of the automatic monitoring system. Furthermore, there will be an open discussion on the potential to train or fine-tune an AI system on collected data to improve the weight estimation accuracy.

SESSION AL07 / / 15th October 2025 11:00 -12:30
ACTIVE LAB: AI FOR FOOD WASTE MONITORING SYSTEMS (PART 2)
Chair / *Presidente*: Mengting Yu, Luca Secondi - University of Tuscia (IT)

This active lab is designed as an extension to the oral presentation *"AI and Food Sharing: Revolutionizing Food Waste Tracking and Mitigation" (*scheduled in **Session E05**), which leverages AI and computer vision technologies to automate the precise quantification and identification of food waste in real-life cases. We aim to provide maximum engagement with participants and offer a hands-on opportunity for those interested in AI technology applications, food waste, and data science. The lab will demonstrate the application of AIpowered food waste identification and quantification. Moreover, each participant can expect to gain practical knowledge about how to build a simple food waste tracking and monitoring system. We will provide a few hardware sets for testing, open-source AI models, and programming codes.
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The activities that will be carried out in this active lab are:

- **Pre-lab**: All confirmed participants will be requested to contribute to the data collection of this lab. We will communicate with each participant to submit some food (leftover) images and the respective measured weight by email. Those images will be merged with the existing database and will be used for AI applications and data analysis during the lab.
- **Presentation**: A short presentation will cover the topics of consumer food waste, food waste quantification and composition, and digital innovations for food waste monitoring (e.g. AI technologies).
- **Training**: We will deliver a full training on how to build a food waste tracking and monitoring system with AI and computer vision technologies. Participants will work in small groups and be provided with a set of hardware, and they will learn how to use Python to program the automatic monitoring system.
- **Analysis**: All participants will use Excel, Python, or R Studio to carry out statistical analysis on the data elaborated during the workshop, evaluating the accuracy of the automatic monitoring system. Furthermore, there will be an open discussion on the potential to train or fine-tune an AI system on collected data to improve the weight estimation accuracy.

SESSION AL12 / / 17th October 2025 09:00 -10:30
ACTIVE LAB: BSF LARVAE FOR BIOWASTE TREATMENT (PART 2)
Chair / *Presidente*: Valentina Grossule - University of Padua (IT), Jeffery K. Tomberlin - Texas A&M University (US)

In the context of the Circular Economy, the use of Black Soldiers Fly (BSF) for biowaste treatment represents a promising alternative to conventional biological processes, for either managing the waste and providing high value resources in term of materials and energy. Indeed, in the larval stage BSF are capable of metabolising and stabilising huge amounts of putrescible waste, transforming it into valuable biomass rich of proteins and fats, suitable for the direct use as animal food or for production of biorefinery products, such as proteins and, biodiesel, lubricants, chitin and chitosan, antimicrobial peptides.
The active lab aims at providing basics knowledge of the BSF larvae and on their use for biowaste treatment, including designing, feed quality, control parameters etc.
Practical activity will be divided into two parts:

- **Part 1**: set up of small-scale reactors for treatment of different biowaste, at the beginning of the conference (Monday, 13 October, 15:30 - 17:00). **The reactors will be kept in operation and can be visited throughout the whole conference**.
- **Part 2**: closure of the test at the end of the conference with larvae separation and performance assessment (Friday, 17 October, 9:00 - 10:30).

SESSION B01 / / 13th October 2025 15:30 -17:00
STRATEGIES FOR IMPROVING CIRCULARITY OF BIOWASTE
Chair / *Presidente*: TBD

M. Nelles (DE)
The role of biogenic waste and residues in a climate neutral world

J. Singh (SE)
Challenges and opportunities to circular management of material resources in the organic fraction of municipal solid waste

S. Estévez, A. Arias, F. Gumersindo, M.T. Moreira (ES)
Transitioning to a certified economy from biological waste: fostering circularity and long-term sustainability criteria

M. Mariani, M. Fundoni, S. Tessitore, F. Corsini, M. Frey (IT)
Is industrial agro-symbiosis a form of frugal innovation? Evidence from fifteen agri-food companies

SESSION B02 / / 13th October 2025 17:30 -19:00
FACTORS INFLUENCING FOOD WASTE GENERATION
Chair / *Presidente*: TBD

K. Hofer, G. Obersteiner (AT)
Food value: reduction of avoidable food waste and losses in the Austrian primary production

E.G. Sigala, C. Chroni, K. Abeliotis, K. Lasaridi (GR)
Exploring the impact of behavioral factors, habitual routines, and sociodemographic characteristics as predictors of household food waste generation

K. Watanabe, T. Okayama, H. Yamakawa, M. Nonomura, Y. Seta (JP)
Are Best Before Dates the date for disposal? - Date distribution of discarded food in sorting analysis of household wasteA

E.G. Sigala, C. Chroni, K. Abeliotis, K. Lasaridi (GR)
Sociodemographic determinants of household food waste underreporting as assessed utilizing questionnaires

SESSION B03 / / 14th October 2025 09:00 -10:30
FOOD WASTE REDUCTION / REDISTRIBUTION PROGRAMMES
Chair / *Presidente*: TBD

G. Obersteiner, K. Hofer, S. Luck, R. Ottner (AT)
Analysis of the waste prevention potential of the mobile application Too Good To Go

E. Schmied, S. Scherhaufer, C. Diesenreiter (AT)
Business-Oriented Solutions for Surplus Food Redistribution

S. Scherhaufer, N. Brunnhuber, G. Obersteiner (AT)
Environmental footprint of innovations against food waste

S. Luck, G. Obersteiner (AT)
Rethinking fruit and vegetable storage: Can retail interventions reduce household food waste?

SESSION B04 / / 14th October 2025 11:00 -12:30
FOOD WASTE MONITORING AND CONTROL IN SCHOOLS AND HOUSEHOLDS
Chair / *Presidente*: TBD

E. den Boer, M. Lech, J. den Boer, T. Noszczyk (PL)
Food waste characteristics and its recycling potential to valuable products

G. Hafner, D. Drissner (DE)
Large-scale monitoring of food waste in private households and childcare centers - comparative comparison of different methodological approaches

R. Soloha, M. Muižniece, E. Dace (LV)
Food waste measurements in Latvian households: lessons from a diary study aligned with the EU framework

J. den Boer, K. Sobieraj, E. Sygu?a, T. Noszczyk, K. Kuczek, E. den Boer (PL)
Food waste and its prevention in Polish schools and kindergartens

S. Luck, G. Obersteiner (AT)
From knowledge to action: How a travelling exhibition on food waste empowers students in Austrian schools

SESSION B05 / / 14th October 2025 17:30 -19:00
PFAS IN WASTEWATER AND SLUDGE
Chair / *Presidente*: TBD

M. Johansson (SE)
Legal approaches to Forever Chemicals: comparing PFAS frameworks in the EU and US

J. Kumpiene, S. Hazrati, J.N. Uwayezu, I. Carabante (SE)
PFAS in Society: Opportunities for a Safer Circulation of Nutrient-Rich Sludge in Luleå, Sweden

T. Rashwan, F. Khodaparastan, D. Payne, S. Barthaud-Newman, G. Howell, F. Fredriksson, L. Yeung, I. Travar, A. Kihl, J. Brown, L. Kinsman, D. Liefl, G. Grant (GB)
Applied smouldering to destroy PFAS and recover phosphorous from sewage sludge

K. Löfstrand, J. Berg (SE)
Advanced removal of PFAS from complex water streams using the SELPAXT SAMF-based technology

G.S. Soomro, E. Conterosito, E. Longo, M. Lo Scalzo, M. Ferretti, A. Zenone, E. Boccaleri, S. Aprile, V. Gianotti (IT)
Tackling PFAS in landfill leachate: electrocoagulation as an innovative and sustainable treatment solution

SESSION B06 / / 15th October 2025 09:00 -10:30
COMPOSTING: ENHANCEMENT OF PROCESS AND COMPOST QUALITY
Chair / *Presidente*: TBD

B. ?eh, A. Karni?nik Klan?nik (SI)
The Influence of On-Farm Composting Practices on the Quality of the Final Product

F. Paillet, E. Crestey, A. Bejani, L. Bourdie, P. Camacho (FR)
Impact of composted substrate types on composting dynamics (sludge and food waste) and the effect of biochar addition on associated greenhouse gas emissions

Y. He, J. M?kinia, D. Sobotka, L. Xie (CN)
Redox-mediated organic matter transformation and microbial mechanisms in ZVI-amended aerobic composting under different aeration strategies

C. Zafiu, E. Binner (AT)
Impact of different screening technologies on the separation of plastic, metal and glass impurities from composts

L. Marchand, F. Baptist , A. Bonin, E. Bellemain, M. Louzon, E. Oppeneau (FR)
Estimating urban degraded soil health basing on chemistry, Ecotoxicology and ecology indicators - An alternative to the TRIADE approach

SESSION B07 / / 15th October 2025 11:00 -12:30
GHG EMISSIONS FROM COMPOSTING
Chair / *Presidente*: TBD

D. Dankwa, G. Clark, M. Boh (CA)
A modified smart chamber for measuring greenhouse gas emissions from composting

A.M. Fredenslund, P.H. Petersen, G.G. Lemaire, L.A. Klotz, C. Scheutz (DK)
Testing operational parameters' effect on greenhouse gas emissions from composting of garden waste

K. Sobieraj (PL)
Mesophilic vs. thermophilic food waste composting: a carbon monoxide production potential

L.A. Klotz, A.M. Fredenslund, C. Scheutz (DK)
Garden waste composting in Denmark: methane and nitrous oxide emission processes

A.M. Fredenslund, L.A. Klotz, M.E Edjabou, C. Scheutz (DK)
Methane and nitrous oxide emission factors from ten garden waste composting facilities in Denmark

SESSION B08 / / 15th October 2025 17:30 -19:00
ANAEROBIC DIGESTION: ADDITIVES FOR PROCESS ENHANCEMENT
Chair / *Presidente*: TBD

A. Montusiewicz, M. Bis, M. Zdeb, R. Panek, S. Pasieczna-Patkowska (PL)
Synthetic zeolites as additives enhancing the thermophilic co-digestion efficiency of sewage sludge and acid whey

M. Bis, M. Zdeb, A. Montusiewicz, E. Wo?ejko, U. Wydro (PL)
Influence of synthetic zeolites on variability of micro-/macro-elements and enzymatic activity in thermophilic co-digestion of sewage sludge and acid whey

A. Siedlecka, H. Khalid, M. Koz?owski, K. Kosiorowska, T. Strza?a, K. Marycz, A. Bia?owiec (PL)
Impact of hydrochar and activated carbon on methane yield and microbial dynamics during anaerobic digestion - preliminary results

H. Khalid, M. Koz?owski, A. Siedlecka, K. Kosiorowski, K. ?wiechowski, K. Sobieraj, A. Bia?owiec, T. Strza?a, K. Marycz (PL)
Effect of Biochar Pyrolysis Temperature and Residence Time on Anaerobic Digestion Performance: Evidence from Gene Expression Analysis

SESSION B09 / / 16th October 2025 09:00 -10:30
ANAEROBIC DIGESTION: STRATEGIES FOR PROCESS OPTIMIZATION
Chair / *Presidente*: TBD

Z. Zheng, M. Bao, W. Huo, Y. Shao, W. Lu (CN)
Quick start of dry anaerobic digestion of kitchen waste using semi-continues horizontal plug-flow system

X. Yan, J.W.C. Wong (CN)
Enhanced acidogenic metabolism by the exogenous Acetivibrio thermocellus inoculum for biogas production from food waste in two-phase anaerobic system

J.E. Sempiira, S. Mamphweli, E. Van Rensburg, J. Görgens (ZA)
Emerging alternative pre-treatment techniques for anaerobic digestion of lignocellulosic biomass

A. Dell'Orto, C. Trois (ZA)
Environmental and techno-economic assessment of combined biohydrogen and biomethane production from municipal organic waste management in South Africa

D. Krahe, K. Stuhlert, F. Brück, U. Theilen, H. Weigand (DE)
Exploring the effects of rheology and differential pressure on the vacuum extraction of high-viscosity digestates

SESSION B10 / / 16th October 2025 11:00 -12:30
DIGESTATE MANAGEMENT FOR RESOURCE RECOVERY
Chair / *Presidente*: TBD

A. Khadir, D. Santoro, A. Al-Omari, C. Muller, G. Nakhla (CA)
Intensifying anaerobic digestion with side-stream vacuum evaporation: a breakthrough in biosolids treatment

G.J. Gaogane, P. Sekoai, C. Trois (ZA)
Digestate recirculation for resource efficiency: impact on hydrogen yield and process inhibition

H. Velten, R.-A. Düring, U. Theilen (DE)
Influence of anaerobic digestion of microalgae biomass under mesophilic and thermophilic conditions on the solubility of phosphorus in the digestate

M. Suchowska-Kisielewicz, S. Myszograj, W. Winiwarter, B. Amon, J. Mazurkiewicz (PL)
Advanced methods of agricultural waste treatment: from waste to resource in a circular economy

SESSION B11 / / 16th October 2025 17:30 -19:00
RESOURCE RECOVERY FROM INSECTS
Chair / *Presidente*: TBD

J.K. Tomberlin (US)
Navigating regulations to allow the use of black soldier fly to recycle waste: opportunities for product diversification

L.M.D.R.S. Martins, A.P.C. Ribeiro, A. Figueiras (PT)
Transforming Black Soldier Fly (BSF) waste into high-value cosmetic ingredients

V. Grossule (IT)
Larvae for WW treatment & resource recovery: LARWAR process - State of art

A.P.C. Ribeiro, A.O. Figueiras, R. Oliveira Silva, L.M.R.D.S. Martins (PT)
Production of Biochar from Black Soldier Fly, Tenebrio molitor and Cricket Biomass under Normal Atmospheric Conditions

A.P. C. Ribeiro, A. Figueiras (PT)
Tenebrio molitor Biomass and Its Applications

SESSION B12 / / 17th October 2025 09:00 -10:30
PHOTOVOLTAIC RECYCLING
Chair / *Presidente*: TBD

D. Fitzgerald, A. Rix, C. Trois (ZA)
The Circular Economy of solar PV in South Africa: optimizing longevity and waste reduction

S. Feldbacher, D. Schwabl, F. Azizi, G.C. Eder, A. Gassner, T. Nigl, G. Oreski (AT)
Use of liquid-based separation technologies to enhance the recycling efficiency of End-of-Life PV modules

F. Azizi, U. Spitzer, R. Pomberger, T. Nigl (AT)
Optimization of water jet cutting for efficient recycling of silicon-based photovoltaic modules

SESSION B13 / / 17th October 2025 11:00 -12:30
BIOMASS VALORIZATION: ENERGY AND PRODUCTS
Chair / *Presidente*: TBD

B.A. Simmons (US)
Conversion of Mixed Waste Feedstocks in the North San Joaquin Valley into Advanced Biofuels and Bioproducts

F. Illuminati, M. Schiavon, M.C. Lavagnolo (IT)
Thermocomposting of agri-food waste: predictive modeling and optimization of energy recovery

A. van Zomeren, S. Bertran Llorens, T. Geiger, Y. Dudnyk, B. Forsthuber, G. Tofani, B. Likozar (NL)
Development of bio-based and recyclable components from sustainable feedstocks for printed electronics

M. Quagliardi, A. Roncarati, E. Frapiccini, M. Marini, M. Panfili, A. Campanelli, P. Penna, S. Vittori, G. Borsetta (IT)
Circular economy in an inland aquaculture farm in Marche Region (Italy): new sustainable by-products feeds tested in brown trout (Salmo trutta fario)

SESSION C01 / / 13th October 2025 15:30 -17:00
LEACHATE GENERATION AND CONTROL
Chair / *Presidente*: TBD

N. Ruxton (AU)
Leachate water balance assessments – the importance of sensitivity analysis

N. Ruxton (AU)
The impact of a catastrophic rainfall event at a landfill in a sub-tropical region – a case study

A. Varma A., M.S.A. Samad, G.K. Varghese (IN)
Reassessing the Leachate Pollution Index: the need for an updated approach in the era of emerging contaminants

SESSION C02 / / 13th October 2025 17:30 -19:00
OPTIMIZATION OF LANDFILL GAS CAPTURE
Chair / *Presidente*: TBD

M. Giovannetti, G. Cordaro, A. Carnasciali (IT)
Large-scale automation for optimized biogas recovery and greenhouse gas emission reduction at Scapigliato landfill

D. Risk, R.I. Hossian, P. Buntov, Y. Dudak, K. El Hachem, C. Hall, T. Abichou (CA)
Full-Scale Controlled Release Experiments for Investigating Methane Measurement Performance at Landfills

A. Lair, R. Lestienne, A.M. Fredenslund, F. Innocenti, N. Proietti, C. Scheutz (DK)
Towards a measurement protocol to assess landfill gas extraction efficiency

SESSION C03 / / 14th October 2025 09:00 -10:30
LANDFILL METHANE OXIDATION BY BIOSYSTEMS
Chair / *Presidente*: TBD

M. Hrad, B. Spangl, M. Huber-Humer (AT)
Long-term efficiency of methane oxidizing biowindows

J.C.M. Souza, J.J.N. Santos, Y. Dulac, M.D.O. Neto, F. Galli, A.R. Cabral (CA)
Continuous monitoring approach for estimating methane oxidation efficiency in biosystems

J.J.N. Santos, J.C.M. Souza, J.L. Almeida, M. Duarte, F. Galli, A.R. Cabral (CA)
Effects of boundary conditions on the efficiency of a pilot-scale biofilter

M. Kriipsalu, J. Burlakovs, K. Orupold (EE)
Full-scale biofilters for landfill methane mitigation: case study from Tallinn, Estonia

SESSION C04 / / 14th October 2025 11:00 -12:30
LANDFILL METHANE OXIDATION AND EMISSIONS CONTROL
Chair / *Presidente*: TBD

Z. Duan, S. Chen, S. Li (CN)
Enhanced mitigation of methane and BTEX from landfill gas using sludge biochar-amended compost via adsorption-oxidation synergy

C. Schöpke (NO)
Isotopic evidence for microbial assimilation of carbon from landfill gas in cover soils

M. Duarte, Y. Dulac, V. Di Battista, A.R. Cabral (CA)
Pilot-scale evaluation of biowindows for methane mitigation at decommissioned landfills

SESSION C05 / / 14th October 2025 17:30 -19:00
THERMAL TREATMENT OF PLASTIC WASTE
Chair / *Presidente*: TBD

V.E. Messerle, A.B. Ustimenko, O.A. Lavrichshev (KZ)
Thermal plasma treatment of plastic waste: thermodynamic analysis and experiment

G. Calì, A. Pettinau, D. Battaglia, V. Arconati, C. Boccia, F. Parrillo, F. Ardolino, U. Arena (IT)
Design and operating criteria of a large-scale steam-oxygen fluidized bed gasifier for mixed plastic waste

K. Santin, J. Alvarez, M. Artetxe, M. Amutio, G. Lopez, M. Olazar (ES)
Conversion of waste plastics into value products by fast pyrolysis and in-line catalytic cracking

SESSION C06 / / 15th October 2025 09:00 -10:30
FATE OF BIOPLASTICS IN BIOTREATMENT OF WASTE
Chair / *Presidente*: Raffaello Cossu (IT)

A.N. Srivastava, M.K. Manu, J.W.C. Wong ()
Validating Bioplastic Paradox: Inhibitor or Promoter in Food Waste Anaerobic Digestion?

R. Chu, C.M. Chan, W.P. Clarke, P.D. Jensen (AU)
Evaluating how blend ratios impact the degradation behaviour of bioplastics and the implications for treatment using typical anaerobic digestion infrastructure

K. Iwamoto, K. Ishii, G. Ham, S. Ochiai, J. Al-Mallahi (JP)
Estimation of environmental impacts of increased bioplastic packaging considering waste management options in the world

SESSION C07 / / 15th October 2025 11:00 -12:30
SINGLE-USE PLASTICS CONTROL
Chair / *Presidente*: TBD

K. Houssini, J. Li, Q. Tan (CN)
A harmonized footprint benchmark to enhance sustainability of plastics along the supply chain

H. Yamakawa (JP)
Bulk food purchasing in Japan: changes in consumer behavior over the past decade and current policy impacts

A. Dobri, E. Carpio-Vallejo, J. Barbir, P. Lyshtva, Y. Kobets, V. Voronova, J. Gäbken (DE)
The BALTIPLAST inventory tool: evaluating effective methods for reducing single-use plastic consumption and carbon footprint in companies across the Baltic Sea region

L. Kanarbik, H. Moora (EE)
How local policies can accelerate the shift to a reuse economy – The case of Tallinn City

G. Obersteiner, M. Kraml, S. Lenz, A. Noichl, R.Ottner (AT)
Plastic Pirates Austria – Citizen Science for the analysis of plastic littering

SESSION C08 / / 15th October 2025 17:30 -19:00
CONTAMINATION AND ENVIRONMENTAL RISKS IN LANDFILLING
Chair / *Presidente*: TBD

G. Thrupp, J. Lottig (US)
Air injection barrier to mitigate migration of soil vapor with chlorinated volatile compounds away from an industrial waste landfill

R. Hawley (US)
Reducing large H2S emissions from construction and demolition waste landfills

R. Beaven, T. Rees-White, A Stringfellow, L. Duarte Campos, H Lammen, J. Gebert (GB)
Preliminary results of a large-scale tracer test to determine contaminant transport properties through landfill

L. Strachan, G. Glasgow, D. McMillan (NZ)
Treatment of landfill leachate contaminated land: adaption of best practicable option approach to New Zealand's high public whenua and environmental standards

X. Fei, X, Pi, Y. Wang (SG)
Modeling long-term environmental risks of coastal dumpsites and offshore landfills under climate change

SESSION C09 / / 16th October 2025 09:00 -10:30
AERATED LANDFILLS
Chair / *Presidente*: TBD

J. Huang, Y. Wu, F. Xu, H. Wang (CN)
Impact of landfill site parameters and operational conditions on in-situ aeration of landfills: a numerical modelling study

Y. Wu, F. Xu, H. Wang (CN)
Landfill microbial community and metabolic pathways under different oxygen concentrations

L. Duarte Campos, A. Stringfellow, T. Rees-White, P. Imhoff, J. Gebert, R. Beaven (NL)
Gas tracer tests to identify spatial distribution of air flow throughout a landfill under in situ aeration

J. Lampaya (ES)
Autonomous eolic powered aerobic stabilization of ageing landfills. Amoroto full site experience

J. Gebert, C. Andrade, N. Meza, V. Chen, N. Janatian, H. Lammen, H. Kramer, L. Wang, A.-C. Dieudonné, T.J. Heimovaara (NL)
Field evidence of effective waste aeration

SESSION C10 / / 16th October 2025 11:00 -12:30
SATELLITE AND OTHER INNOVATIVE LANDFILL GAS EMISSIONS MONITORING
Chair / *Presidente*: TBD

K. Kataria, A. Lair, M. Lampaya (CA)
Addressing emission variability in landfills: a multi-site, multi-tier methane monitoring approach

J. Chamat, V, Fakra, T. Kanungo, S. Scholz (IT)
Closing the Gap: Satellite-based observations to improve methane emission estimates. A Case Study on European Landfills

K. Kataria, D. Wicks, J. Hendry (CA)
SMART-LANDFILL: Sustainable Monitoring and Analytics for Resilient Technologies in Landfills

O. Oberti, C. Romand, M. Trombetti, T. Depelchin, M. Nibart, A. Shah, P. Kumar, G. Broquet , O. Laurent, P. Ciais (FR)
Innovative biogas emission landfill monitoring and quantification thanks to 3D modeling and new generation of CH4 sensor network

SESSION C11 / / 16th October 2025 17:30 -19:00
CIRCULAR ECONOMY IN CONSTRUCTION SECTOR
Chair / *Presidente*: TBD

G. Hafner, B. Kohler, L. Blandini (DE)
Preservation of existing buildings through resource-efficient and circular renovation and refurbishment - example of facades

S. Pishgahi, R. Horne, B. Middha (AU)
Uncovering material circulation dynamics: Actor-Network Theory in circular digital procurement for residential construction

L. Hasselsteen, A. Damgaard, A. Otovic, H. Birgisdottir, K. Kanafania (DK)
Quantifying resource flows and reducing environmental impacts during building construction

F. Dizaye, S. Yevu, K. Ayinla, C. Goodier (GB)
Towards continuous improvement: state-of-the-art of circular economy assessment measures in construction

SESSION C12 / / 17th October 2025 09:00 -10:30
EMISSION POTENTIAL OF CONSTRUCTION MATERIALS
Chair / *Presidente*: TBD

J. Aguilar-Herrera, A. López-Uceda, N. Briceño, A. Barbudo, A.P. Galvín (ES)
Environmental Leaching Thresholds for Recycled Aggregates from C&DW: A Proposal for End-of-Waste Criteria in Spain

M. van Praagh, J. Jennerheim, J. Kaur (SE)
Emerging versus classic contaminants in construction and demolition waste – challenges for circular use, end-of-waste criteria and landfilling

F. Mattersberger, F. Part, R. Weber, H. Rechberger (AT)
Qualitative and quantitative analysis of various brominated flame retardants in plastics of the building and construction sector

N. Zang, P. He, H. Zhang, X. Zhang, F. Lü (CN)
Emission of PAHs from the recycling process of construction and demolition waste

SESSION C13 / / 17th October 2025 11:00 -12:30
LIGHT WEIGHT PLASTIC - PACKAGING
Chair / *Presidente*: TBD

T. Okayama (JP)
Research on the extent of plastic packaging of vegetables and fruits in supermarkets in Tokyo

V.H. Gabriel, E. Jahn, K. Detter, M. Novak, R. Reinbacher, M. Pfitzne (AT)
Characteristics of Polyolefin and Polystyrene packaging waste in separate collection: A case study in Austria from 2021-2024

A.M. Spies, K. Greiff, K. Raulf, N. Mayer, J. Juretschke, B. Küppers, X. Chen (DE)
Assessing lightweight packaging waste sorting processes to evaluate the potential for catalytic recycling processes

SESSION D01 / / 13th October 2025 15:30 -17:00
CIRCULAR ECONOMY AND WASTEWATERS
Chair / *Presidente*: TBD

A. Sobral-Lores, S. Estévez, G. Feijoo, M.T. Moreira (ES)
EU Taxonomy and Wastewater Treatment: Driving Sustainability and Environmental Compliance

M. Smol, P. Marcinek (PL)
Shaping Circular Economy policies in the wastewater sector - A stakeholder approach

J. Valeri, G. Costa, S. De Assis Bombardelli Miranda, N.M. Gusmerotti, L. Migliore, R. Baciocchi ()
Evaluation of the environmental/social and economic benefits of an innovative process for upcycling microfibers from washing machine wastewater

M. Smol, M. Andrunik, K. Ramm (PL)
Recovery and reuse of nutrients form waste generated in wastewater treatment plants - Case study of the Baltic Sea Region

SESSION D02 / / 13th October 2025 17:30 -19:00
VALORIRATION OF SEWAGE SLUDGE
Chair / *Presidente*: Jurate Kumpiene (SE)

L. Lombardi (IT)
Thermochemical valorisation of sewage sludge: perspectives on pyrolysis, gasification, and nutrient recovery in the European context

C. Richmond, C. McGregor, C. Trois ()
Valorisation of Sewage Sludge for Renewable Natural Gas Injection into the Lilly Pipeline: A Feasibility Assessment in eThekwini Municipality

P. Gerl, C. Zafiu, M. Huber-Humer (AT)
Recovery of phosphorus from sewage sludge ash by carbonation and subsequent bioleaching

Y. Feng, Z. Tang, Q. Zhang, D. Chen (CN)
Study on the clean and hydrogen-rich synthesis gas production via reforming of volatile matter from sewage sludge by its pyrolysis char

SESSION D03 / / 14th October 2025 09:00 -10:30
RECYCLING OF INDUSTRIAL INORGANIC WASTE
Chair / *Presidente*: TBD

F. Feucht, A. Klöckl, S. Neuhold, K.P. Sedlazeck (AT)
Optimising automated refractory sorting: How a segmentation model will help evaluate and optimise singularisation of a spent refractory sorting plant

Y. Xu, F. Wang (CN)
Upcycling of end-of-life wind turbine blades: enhanced phenolic compounds production through catalytic co-pyrolysis of epoxy resin and polyvinylchloride with balsa activated carbon

R.E. ?liwa, M. Zwolak, B. Paw?owska, ?. B?k, D. Ko?odziejczyk, A. Wedrychowicz (PL)
KOBO extrusion as a new process for recycling metal chips

SESSION D04 / / 14th October 2025 11:00 -12:30
RECYCLING OF INDUSTRIAL ORGANIC WASTE
Chair / *Presidente*: TBD

X. Fei, Y. Wang (SG)
Bridging the Waste Data Gap: A Unified Framework for Quantifying and Mitigating Industrial and Agricultural Streams

R. Titos-Guillen, E. Licon, T. Alvariño, A. Taboada, S. Sentellas, M. Reig (ES)
LIFE CYCLOPS: Upcycling polyphenols from industrial olive oil waste

V. Žepi? Bogataj , C. Martínez-García, M.T. Cotes-Palomino, A.B. López, B. Mezek (SI)
Recycled sisal fiber-reinforced polypropylene derived from industrial waste stream

SESSION D05 / / 14th October 2025 17:30 -19:00
SORTING PROCESSES
Chair / *Presidente*: TBD

C. Maurer, S. Sasse, E. Bronner, D. Vollprecht, (DE)
Investigations on different separation processes for a material-specific recycling of resin-bonded grinding tool

M. Bredács, J. Geier, C. Barretta, M. Messiha, G. Oreski, G. Koinig, Sz. Gergely (AT)
Employing chemometrics and data science in mechanical waste sorting to facilitate circular use of polymer materials

M. Garczy?ska, C. Ciotti (IT)
Detection and separation of End-of-Waste PVC cables containing lead, MCCPs and DEHP

J. Geier, C. Barretta, M. Messiha, M. Bredács, E. Helfer, L. Meinhart, G. Koinig, G. Oreski (AT)
Detection of degraded polyethylene using near-infrared hyperspectral imaging

SESSION D06 / / 15th October 2025 09:00 -10:30
AFTERCARE LANDFILL BEHAVIOUR
Chair / *Presidente*: Rainer Stegmann (DE)

C.R. Cruz Osorio, S. Buima-Yi, H. Lammen (NL)
Towards sustainable landfill aftercare: leachate quality trends After 7.5 years of aeration at Wieringermeer Landfill, The Netherlands

P. Bonilla, P. Kjeldsen, L. Fjelsted, J.E. Larsen, A.G. Christensen, R.R. Møller, C. Scheutz (DK)
Landfill aeration for reducing the aftercare period at AV Miljø Landfill, Denmark – Results of two years of aeration

J. Gebert, N. Meza, S. Yi, T. Kanen, H. Lammen (NL)
Highlighting mechanisms that delay meeting aftercare completion criteria for nitrogen

SESSION D07 / / 15th October 2025 11:00 -12:30
CO2 EMISSIONS ACCOUNTING AND REDUCTION IN INCINERATION PLANTS
Chair / *Presidente*: TBD

L. Acampora, G. Costa, S. Malvezzi, B. Papa, C. Mensi ()
Estimating the CO2 emission factors for a Waste-to-Energy plant based on flue gas data and waste stream composition

H. Zhang, Y.F. Ma, P.J. He, F. Lü (CN)
Improving carbon emission accounting for waste incineration

T.H. Christensen (DK)
The future role of waste incineration in providing CO2 for Power-to-X

J. Zhang (CN)
How to incentive carbon capture and storage technology application in waste-to-energy industry: A facility-level integrated assessment of China

SESSION D08 / / 15th October 2025 17:30 -19:00
COST-EFFECTIVE TECHNOLOGIES FOR WASTEWATER TREATMENT
Chair / *Presidente*: Valentina Grossule (IT)

H. Velten, F. Brück, U. Theilen (DE)
Impact of a novel mixing system on the biogas yield of a lab-scale anaerobic pond

M. Henjak (IT)
Design framework of larwar process for treatment of WW using BSF larvae

M. Salam (IT)
Design and operation of continuous small pilot plant for WWT using BSF larvae

S. Kilian, K. Paw?ska (PL)
Efficiency of Floating Treatment Wetlands planted with Iris pseudacorus and Glyceria maxima

SESSION D09 / / 16th October 2025 09:00 -10:30
FLY + BOTTOM ASHES QUALITY TREATMENT
Chair / *Presidente*: TBD

K.T. Sin, S. Yu, F. Lü, H. Zhang, P. He (CN)
Optimization on the Extraction and Separation of Soluble Salts and Heavy Metals from MSWI Fly Ash

E. Gorjatšova, H.M.V. Rui, K.G.V. Sigfridsson Clauss, N. Skoglund, J. Rissler (SE)
Speciation of zinc in fresh and stabilised municipal solid waste incineration fly ash

J. Jegy, K. Sigfridsson Clauss, J. Rissler, A. Strandberg, N. Skoglund (SE)
Chemical and morphological studies of bottom ash particles from co-combustion of barley straw and municipal sewage sludge

S. Heberlein, W. P. Chan, G. Lisak (SG)
Versatility of the high temperature slagging gasification process for treatment of diverse waste streams in a demonstration-scale facility

X. Liu, L. Ma (CN)
Characterization of alkali-inspired fly ash composite colloids to inhibit spontaneous combustion of coal

SESSION D10 / / 16th October 2025 11:00 -12:30
FLY ASHES UTILIZATION
Chair / *Presidente*: TBD

S. Yu, R. Wang, P. He, F. Lü, H. Zhang (CN)
Investigation on the property of fly ash washing eluate and marine discharge considerations

F. Bergman, E. Gorjatšova, M. Strand, S. Janhäll, H.M. Vatten Rui, K. Karlfeldt Fedje, L. Hartman, S. Sala, J. Rissler (SE)
Zinc elemental environment in WtE fly ash studied by synchrotron-based methods

K. Yamada, T. Yasukochi, Y. Tojo, K. Endo (JP)
Cement solidification of MSW incineration fly ash containing cement hydration inhibitors and dissolution characteristics of Pb

L. Ma, X. Wang, X. Liu (CN)
Response surface optimizing XG/HPMC fly ash colloid to inhabit coal spontaneous combustion: an experimental study

SESSION D11 / / 16th October 2025 17:30 -19:00
DRONE BASED MONITORING OF LANDFILL SURFACE EMISSIONS
Chair / *Presidente*: TBD

C. Romand, O. Oberti, M. Trombetti, T. Depelchin, M. Nibar (FR)
Intercomparison of biogas emission landfill measurement method to assess their reliability and operability at scale

A. Sarno, L. Bloom, K. Krahn, A. Hassel, G. Thune (SE)
Drone-based mapping and site-level quantification in regular monitoring of landfill surface emissions

G. Tassielli, L. Cananà, M. Spalatro (IT)
A new method for quantifying methane emitted from a landfill using a drone-mounted TDLAS sensor

N. Proietti (IS)
Comparative Study of Regular Drone Emission Quantification and IPCC Modelling for an Icelandic Landfill

SESSION D12 / / 17th October 2025 09:00 -10:30
MANAGEMENT OF SEWAGE SLUDGE AND DREDGED MATERIALS
Chair / *Presidente*: TBD

G. Campo, D. Panepinto, M. Zanetti (IT)
Assessment of the Interaction Between Sludge Pre-Treatments, Anaerobic Digestion and Mono-Incineration Processes

G. Lisak, W.P. Chan, Y.Z. Boon, SAMB Yusoff, Y.H. Hua, L. Liang, V.M.P. Chin, P.W. Du, H.T, Bui, Z.Y. Zhang, X.F. Lin, K.H. Tan (SG)
Resource recovery from sewage sludge through the deployment of a demonstration scale high temperature slagging gasifier

J. Rosik, S. Stegenta-D?browska, K. ?wiechowski, K. Paw?ska (PL)
The Effect of Reapplying Dairy Sewage Sludge on Composting Process Parameters

Y. Dong, B. Yu, Y. Jia, X. Xu, P. Zhou, M. Yu, J. Liu (CN)
Influence of sewage sludge compost on heavy metals in abandoned mine land reclamation: a large-scale field study for three years

I. Pecorini, F. Pasciucco, S. Di Gregorio, F. Pilato, R. Iannelli (IT)
The GRRInPort2 project: new perspectives for the sustainable management of contaminated marine sediments through combined bio-electrochemical processes

SESSION D13 / / 17th October 2025 11:00 -12:30
LANDFILL MONITORING BY USING DIFFERENT TECHNIQUES
Chair / *Presidente*: TBD

X. Liu , J. Liang, Y. Zhang, T. Long, H. Bai, D. Yue ()
Identification of Leachate Leakage Zones of a Landfill Using Fluorescence Fingerprinting Technology: a Case Study

D. Vernola, V. Villa, E. Zanni, G. Viscardi, R. Dellaca', L. Capelli, M. Roveri (IT)
Preliminary evaluation of a portable electronic nose for landfill odours classification and quantification

V. Villa, D. Vernola, E. Zanni, M. Ardito, G. Viscardi, F. Martini, G. Foddis, Y. Ponzani, R. Dellaca', M. Roveri, L. Capelli (IT)
Low-cost portable sensors toolbox for methane emissions quantification in landfills

O. Brovkina, M. Pikl, L. Fajmon (CZ)
The potential of airborne laser scanning in monitoring and assessing landfill stability

B. Yang, W. Lu, J. Chen, Z. Peng, L. Yuan, Z. Bao (HK)
Profiling illegal dumping using panoramic street view analytics

SESSION E01 / / 13th October 2025 15:30 -17:00
LARGE LANGUAGE MODELS IN WASTE MANAGEMENT
Chair / *Presidente*: TBD

W. Lu, J. Hao, Z. Peng, J. Chen (HK)
Prospects and challenges of emerging large language models (LLM) to waste management

J. Chen, W. Lu, Z. Dong, J. Lu (HK)
Exploring large language models for automated recognition of construction waste composition

Y. Zhang, Z. Wen (CN)
Unveiling the impact of domain knowledge and scaling law on open-source large language model specialization in anaerobic digestion

SESSION E02 / / 13th October 2025 17:30 -19:00
EDUCATION: ENGAGING STUDENTS IN CIRCULAR ECONOMY
Chair / *Presidente*: TBD

J. Gutberlet, F. Rodriguez Torres, C. Carvalho (CA)
From Awareness to Action: engaging students in zero waste initiatives

I. Grinfelde, J. Burlakovs, K. Siltumens, J. Pilecka-Ulcugaceva (LV)
Transforming educational models to foster eco-innovation by engaging students in sustainable waste management through a triple helix approach

G. De Feo (IT)
The Greenopoli Method: Engaging Environmental Education for Sustainable Waste Management

SESSION E03 / / 14th October 2025 09:00 -10:30
AI AND DIGITAL SOLUTIONS IN WASTE MANAGEMENT
Chair / *Presidente*: TBD

A.-M. Tuomala (FI)
Leveraging digital technologies for smart waste management: a literature review

T. Bright, S. Adali, C. Trois (ZA)
YOLO-Transformer Hybrid Model Using Multispectral Drone Imagery for Municipal Waste Categorisation

O. Baron, M. Rosenstiehl, C. Bloquet (FR)
Analytical process of AI in bounding boxing for waste characterization: optimising AI performance measurement

S. Cota, V. Corbellini, M. Calabresi, F. Lazzari (IT)
Leveraging Digital Tools for Circular Electronics: AI-Driven PCB reuse and waste management solutions

S. Schmuck, M. Simon, T. Mietzel, T. Ricken, R. Widmann (DE)
depSIM meets AI - Potentials of combining dynamic simulations with AI for landfills

SESSION E04 / / 14th October 2025 11:00 -12:30
REUSE OF CONSUMER PRODUCTS
Chair / *Presidente*: TBD

E. Schmied, G. Obersteiner (AT)
Status Quo and Potential of Re-Use in the Austrian Furniture Sector

J. S. Rolver, B. Hauge (DK)
Consumer behaviour: A Danish study on barriers behind reuse of discarded mattresses towards a more circular society

V. Rossi, H. Logan, A. Damgaard (DK)
Viability of recycling for separately collected post-consumer footwear in Denmark

B. Silva , M.C. Paiva, C. Basto-Silva, H. Nunes, F. Pinho, V. Gama, J. Pires , G. Gonçalves, A. Marques, C. Gonçalves (PT)
Circular Strategies for Sustainable Innovation: Tackling Coffee Capsule Waste

SESSION E05 / / 14th October 2025 17:30 -19:00
AI AND DIGITAL SOLUTIONS FOR OPTIMIZING FOOD WASTE MANAGEMENT
Chair / *Presidente*: Hua Zhang (CN)

E.G. Sigala, P. Gerwin, C. Chroni, K. Abeliotis, C. Strotmann, K. Lasaridi (GR)
AI-based waste-tracking interventions for reducing food waste in the HORECA sector: Evidence from a large-scale implementation study

M.T. Yu, L. Principato, C. Cicatiello, C. Comis, L. Secondi (IT)
AI and Food Sharing: Revolutionizing Food Waste Tracking and Mitigation

E.G. Sigala, S. Fortatos, K. Boikou, K. Synani, C. Chroni, K. Abeliotis, K. Lasaridi (GR)
From granular to country-level food waste data: the use of the Electronic Food Waste Registry in Greece

D. Leverenz (DK)
How smart are digital waste management solutions? Understanding measurement biases in food waste tracking systems and their implications for waste reduction strategies

SESSION E06 / / 15th October 2025 09:00 -10:30
CIRCULAR ECONOMY STRATEGIES: CASE STUDIES
Chair / *Presidente*: TBD

E. Carpio-Vallejo, J. Barbir, M. Fedoruk, F. Jose, A. Dobri (DE)
The BioRADAR's Implementation Scorecard: empowering Small and Medium Enterprises into a sustainable and circular bioeconomy transition

A. Comolatti, T. Trentinella (BR)
Barcodes for Recycling! How Brazilian e-tax invoice system may boost EPR implementation

S. Soudachanh, S. Salhofer (AT)
Circular strategies for smartphones: a case study from Vientiane Capital, Laos

Z. Peng, W. Lu, L. Yuan, J. Ma (HK)
Social networks and small alliances in the construction waste hauling sector: Empirical evidence from Hong Kong

SESSION E07 / / 15th October 2025 11:00 -12:30
FUTURE OF EXISTING LANDFILLS
Chair / *Presidente*: TBD

M. Ritzkowski, K.-U. Heyer, P. Benkus (DE)
State of the art of waste disposal in landfills in Germany and its contribution to climate protection

N. Proietti (IS)
A Journey into Landfill Digitalization and Prospects for the Future

R. Gregory, S. Davies, M. Holden, M. Moran (GB)
40 years after Loscoe, landfills have changed. Can we still predict their behaviour?

P.P. Virtanen, E. Immonen, R. Lautkankare (FI)
ScaTES - Scalable Thermal Energy Storage at landfill constructed from mineral waste materials

T. Sperling, L. Novy, I. Wiebenga (CA)
Hartland landfill lateral expansion - Providing capacity to 2100

SESSION E08 / / 15th October 2025 17:30 -19:00
CIRCULAR ECONOMY STRATEGIES IN DCS
Chair / *Presidente*: TBD

J. Gutberlet (CA)
Advancing climate action and social change through the University for and with waste pickers

A. Elnaas, A. Nassour, R. Shahrabi (DE)
Enhancing financial sustainability of solid waste management systems in the MENA region

M. Tripathi, S. Gebrezgabher (IN)
Integrating Circular Economy Principles into Rural Waste Management: Feasibility of Decentralized Waste Valorization Models in India

E. Williams, Towip, W. Cade, S. Watson ()
Quantifying the interaction of residential consumers with informal collectors of End-of-First-Use electronics in Indonesia

SESSION E09 / / 16th October 2025 09:00 -10:30
LANDFILLING IN DEVELOPING COUNTRIES: STATE OF ART AND OPPORTUNITIES
Chair / *Presidente*: TBD

E. Trottini, G. Barina, O. Oberti, I. Chayat (FR)
Feasibility study of biomethane production at the Meknes Green Landfill site

J.J. Velasco, M. Alarcón, J.C. Castañeda, A. Conrado, C. Nieto, D. Solarte (CO)
Enhancing Biogas Production in Landfills: Challenges and the Application of the RCM Methodology in Developing Countries

D. Agudelo-Romero, G. Barina, E. Trottini (FR)
Feasibility study for the deployment of a biogas-to-biomethane conversion solution at the La Esmeralda landfill, Manizales, Colombia

SESSION E10 / / 16th October 2025 11:00 -12:30
WASTE MANAGEMENT ISSUES IN DEVELOPING COUNTRIES
Chair / *Presidente*: TBD

N. Kohler, K. Mokoena, D. Sehaswana, M. Van Niekerk (ZA)
The changing face of waste in South Africa

B. Rahardyan, E. R. Anggraini (ID)
Material flow analysis of used beverages cartons (UBC) (Case Study: Bekasi City, West Java)

M. Patel (ZA)
Neglect around the management of Naturally Occuring Radioactive Material (NORM) residues in South Africa

A.F. Muhamad, R. Tajima (JP)
Spatiotemporal analysis of river waste accumulation in Jakarta, Indonesia: insights from time series mapping of river waste traps

SESSION E11 / / 16th October 2025 17:30 -19:00
CO2 EMISSIONS REDUCTION IN CIRCULAR ECONOMY
Chair / *Presidente*: TBD

R. Gabbay De Souza, S. Kæm Berggreen, C, Scheutz (DK)
Global warming and carbon capture and sequestration potentials of scenarios for compost and biochar applications in soil

G. Lin F. Wei, J. Li Li Liang, H. Thi Thu Ngo, Z. Zhang, Q. Tan (CN)
Carbon reduction potential of the emerging mode of secondary resource circulation——A case study in six major trading economies

M. Niero, F. Albano, M. Frey (IT)
Life Cycle Assessment to support the definition of decarbonization strategies in the steelmaking industry: challenges and lessons learnt from the GreenHeatEAF project

SESSION E12 / / 17th October 2025 09:00 -10:30
WORKSHOP: IWWG TG CLEAR: METHANE OXIDATION SYSTEMS IN LANDFILLS
Chair / *Presidente*: Julia Gebert (NL), Marion Huber-Humer (AT)

In the last years, microbial methane oxidation systems have transitioned from state of research to state of the art, being implemented on large scale to mitigate residual landfill methane emissions. How to assess the oxidation potential of candidate materials in a time- and cost-effective way is still under discussion. Also, regulators permitting these gas treatment systems stipulate different methodological approaches and frequencies for monitoring system performance in the field. Sometimes, scientific research and with intensified monitoring accompanies system operation.
The aim of this workshop is to discuss approaches assessing material performance before field implementation and approaches assessing system performance after implementation, thereby also providing an update of current insights into system performance and limiting factors.

SESSION E13 / / 17th October 2025 11:00 -12:30
PHOSPHOROUS RECOVERY FROM SEWAGE SLUDGE
Chair / *Presidente*: TBD

T.T. Lim, S.B. Tiwari, A. Veksha, W.P. Chan, G. Lisak (SG)
Phosphorus Recovery from Sewage Sludge through Synergistic Thermal and Acid-Base Integrated Treatment Strategies

T. Vo, C. He (FI)
High-Purity Phosphorus Recovery from Sewage Sludge Using Acid-Assisted Hydrothermal Processing with Chemical Extraction

L. Liang, W. Chan, Y. Hua, Y. Zhao, S. Al Munawarah Binte Yusoff, V. Chin, Y. Boon, G. Lisak (SG)
From waste to harvest: Phosphorus recovery from sewage sludge gasification by-products for hydroponic lettuce cultivation

C. Chen, F. Wang (CN)
Phosphorus recovery in sewage sludge incineration ash to produce hydroxyapatite

SESSION F01 / / 13th October 2025 15:30 -17:00
WORKSHOP: RETHINKING WASTE COLLECTION AND TRANSPORT: FUTURE PATHS
Chair / *Presidente*: TBD

Introductory lecture:

G. De Feo, A. Bove, A. Grosso (IT)
Defining the Maximum Reliable Threshold for Separate Waste Collection: A Multi-Dimensional Analysis and Empirical Validation in Campania, Italy

SESSION F02 / / 13th October 2025 17:30 -19:00
WORKSHOP: ZERO-WASTE ROADMAP GAME
Chair / *Presidente*: Jagdeep Singh (SE)

This workshop will introduce the Zero-Waste Roadmap Game. The game is developed to operationalize the concept of circular economy, design, and participatory backcasting when addressing the systemic, institutional, and behavioral barriers to sustainable waste management. This game is aimed at engaging stakeholders throughout the organic waste value chain. In this game, the stakeholders collaboratively develop solutions to challenges in organic waste management through a participatory process of mutual engagement, consultation and consensus. This is done to recognize the needs of the stakeholders across the value chain to optimally address them. The game incorporates the elements of gamification, such as information, reflection, exposition, choice, play, and engagement.
The game will inspire the participants who work with stakeholders to address waste management issues. Itcan help them reflect on their methods and approaches in their respective research fields.
This game is being developed within an Indo-Swedish consortium research project BioCircularR - Towards Zero-Waste through Bio-based Circular Recovery Model – Lessons for Managing Organic Fraction of Municipal Solid Waste from Sweden and India (BioCircularR). The project is financed by FORMAS Sweden and Department of Science and Technology, Government of India. The project is led by four universities – KTH Royal Institute of Technology, Stockholm, and Lund University, Lund in Sweden, and Indian Institute of Technology, Kharagpur, and Indian Institute of Technology Patna in India.

SESSION F03 / / 14th October 2025 09:00 -10:30
WORKSHOP: UNLOCKING THE BLACK BOX: SOLUTIONS FOR SUSTAINABLE MANAGEMENT OF OLD LANDFILLS
Chair / *Presidente*: Julia van der Heide (NL)

This engaging workshop is dedicated to exploring the complexities and challenges associated with old landfills through a case study from the Netherlands. With approximately 30,000 hectares of land occupied by these sites, they form an interesting component in current spatial issues, such as energy transition, housing construction, and green spaces. Thereby, they also are a potential risk for pollution of soil and groundwater. In this workshop, participants will delve into a compelling case study that highlights the inherent uncertainties surrounding old landfills, often referred to as "black boxes".

SESSION F04 / / 14th October 2025 11:00 -12:30
WORKSHOP: CIRCULAR PLASTICS AND ADVANCED COMPOSITES
Chair / *Presidente*: Florian Part (IT)

The use of circular plastics is vital in enhancing the recyclability of plastics and reducing reliance on primary and fossil-based materials. To ensure the success of the circular economy in the future, it is essential to develop advanced plastics and polymer composites that can be kept in circulation, in addition to implementing more efficient waste collection and recycling systems for commodity plastics. Plastic products with minimal mechanical requirements, such as single-use packaging, already have established collection and recycling pathways in place to minimise material loss. In some instances, the use of biodegradable materials can substitute for commodity plastics. These advanced plastics can be collected as biowastes and processed using biological waste treatment processes, thereby reducing the environmental impact and addressing the issue of littering.

In contrast to widely used commodity plastics, engineering plastics often require high thermal, chemical or mechanical stability for specific applications, such as in the electronic or mobility sectors. These properties are achieved by fillers and additives (plastic compounding), which increases the complexity of the plastics, often resulting in composites. These engineering plastics are primarily thermally treated at the end of their lifecycle (waste-to-energy), as the separation and recycling of their components poses significant challenges. To address these challenges, the so-called ’safe and sustainable by design’ (SSbD) principle has been proposed. This principle, endorsed by the European Commission, aims to enhance safety through chemical risk assessment and to boost sustainability, ensuring that novel products entering the EU market are safe and environmentally sound. Furthermore, the SSbD principle encourages the development of circular business models, which are essential for ensuring the economic sustainability of advanced plastics.

During the workshop, we will introduce the SSbD principle, which incorporates fundamental concepts such as green chemistry, quality by design, and design for recycling, along with other design principles. Following this introduction, we will present two case studies: one on the design and testing of compostable packaging materials and the other on bio-based epoxy systems suitable for use in the automotive and aerospace industries, which are designed to be chemically recyclable. These innovative design strategies will enable us to achieve closed-loop recycling and reduce the thermal utilisation of plastic waste. Finally, we will conclude the workshop with a discussion on the barriers and drivers for such novel circular business models.

SESSION F05 / / 14th October 2025 17:30 -19:00
WORKSHOP: WASTE TO HYDROGEN: STATE OF ART AND PERSPECTIVES
Chair / *Presidente*: TBD

R. Kingsley Padi, V. González-Mallén, Á. Martínez, K. Maran, M. Brandão, E. Sánchez, M. Junginger (AT)
From biowaste to hydrogen and hydrogen-based fuels: European case studies and environmental impact assessment

M. Materazzi (GB)
Waste gasification for hydrogen and chemicals production: barriers and research needs identified from real plants operation in UK

L. Zou, L. Ma, G. Wei, R. Guo (CN)
Hydrogen production performance and reaction kinetics of biomass gasification enhanced by waste carbide slag

SESSION F06 / / 15th October 2025 09:00 -10:30
WORKSHOP: QUALITY RELATED RISKS OF RECYCLED PRODUCTS
Chair / *Presidente*: TBD

Introductory lecture:

G. Beggio, A. Ndiforngu, R. Dall'Anese, T. Bonato, M.C. Lavagnolo (IT)
Recycled plastics as a source of PFAS in the Circular Economy: analytical challenges and migration-based human exposure assessment

SESSION F07 / / 15th October 2025 11:00 -12:30
WORKSHOP: BIOGENIC WASTE IN THE CIRCULAR BIOECONOMY - POTENTIALS AND BARRIERS
Chair / *Presidente*: Christian Zafiu (AT)

Biogenic waste represents the largest fraction of municipal solid waste that should be separately collected and used to produce biogas or compost. Composts can be used as a sustainable fertilizer and soil conditioner respectively. However, impurities reduce the quality of composts and must be avoided as much as possible to avoid meet quality criteria of composts and to avoid the contamination in agriculture.
Reliable data on the detailed biowaste composition of impurities, biodegradables and food waste is crucial for monitoring and optimizing of corresponding measures. In order to make sorting analyses comparable, a biowaste sorting guideline has been developed in Austria in 2021, which initiated extensive biowaste sorting campaigns. The key findings on the detailed composition and the factors influencing it provide a much clearer picture of the relevance of collection and treatment practices.
However, even if impurities can be reduced at any stage of the collection and treatment process the initial collection and avoidance remains the best option to reduce impurities. For the avoidance of impurities it is important to know, which impurities – down to the waste item – were inappropriately disposed of in the separately collected biowaste. In the compost plant, impurities can be removed only partly during pretreatment by different technical solutions, as well as after the composting process.
In this workshop we will give a i) comprehensive introduction into methodologies to assess impurities in biowaste and measures which can be applied to reduce it, b) an overview of different composting technologies as well as regulatory thresholds, and c) the general pollution in biowaste and microplastics in composts, as well as a discussion on methods to reduce the pollution.

SESSION F08 / / 15th October 2025 17:30 -19:00
WORKSHOP: HOW TO ACHIEVE CLIMATE NEUTRALITY IN LANDFILLING
Chair / *Presidente*: Marco Ritzkowski (DE)

Landfills are major contributors of greenhouse gas (GHG) emissions. Diffuse emissions of methane gases are making a contribution to climate change. Moreover, waste handling (collection, transport, placement and compaction) and operation of the equipment for gas and leachate collection and treatment are causing further GHG emissions, whereas further indirect emissions are caused by the transport of construction materials. Minimizing these emissions is an important task which should be amended by additional efforts to substitute CO2 emissions by the generation of renewable energy from and on the landfill sites. The aim is to achieve climate neutral landfills over their entire lifetimes.
The intention of the workshop is to demonstrate and discuss options for GHG emissions reduction in (all) different phases of the landfill lifetime and to evaluate the possibility of achieving a concept for climate neutral landfills in future.

SESSION F09 / / 16th October 2025 09:00 -10:30
WORKSHOP: SOLID AND LIQUID WASTE AND WATER MANAGEMENT IN NEW CITY QUARTERS
Chair / *Presidente*: Rainer Stegmann (DE)

The continued development of Eco-Cities and Eco-Quarters is crucial for saving resources and mitigating climate change. This workshop will explore strategies for water conservation through wastewater reuse and the collection and use of rainwater.
We will examine how organic household waste and black water (faeces) can be converted into reusable compost on-site. Where feasible, separately collected urine may also be utilized for the removal of Xenobiotics and the recovery of Phosphorus and Nitrogen. Water transportation methods, including gravity and vacuum systems, will be considered.
In rural contexts, the use of phytotreatment systems will be discussed as a viable wastewater treatment option. Additionally, innovative approaches to the separate collection of plastics, paper, glass, and other waste types will be addressed—key components of sustainable waste management in Eco-Cities.
Energy considerations and the integration of biotopes will also play a central role in the successful implementation of these measures.

Introductory lectures:

R. Stegmann (DE)
Combined decentral waste and sewage treatment options

S. Schmuck, C. Meyer, V. Preyl, H. Stichnothe (DE)
Rural Urban Nutrient Partnership - Results from the continuous operation of a large-scale pilot plant for the recovery of recyclable materials from biowaste and domestic wastewater

SESSION F10 / / 16th October 2025 11:00 -12:30
WORKSHOP: GHG EMISSIONS AND CLIMATE CHANGE IN WM
Chair / *Presidente*: Y. Abera, C. Trois (ZA)

Y. Abera, C. Trois (ZA)
Waste to energy technologies assessment regarding GHG emission and energy consumption/recovery in South African

M. Hejna, A. Bia?owiec (PL)
The hidden hazard in refuse-derived fuel use: a volatile organic compounds perspective

F. Ardolino, F. Parrillo, U. Arena, L. Privitera, S. Malvezzi (IT)
A waste-to-hydrogen strategy for a sustainable railway transportation

M. Xu, B. Yu, Y. Chen, P. Zhou, X. Xu, W. Qi, Y. Jia, J. Liu (CN)
Mitigating greenhouse gas emission and enhancing fermentation by phosphorus slag addition during sewage sludge composting

S. Cucurachi, C.F. Blanco ()
Assessing the hidden environmental burden of illicit MDMA production: a screening-level life cycle study on climate and waste impacts

SESSION F11 / / 16th October 2025 17:30 -19:00
WORKSHOP: IWWG TG PFAS: PFAS REMOVAL FROM CONTAMINATED MATRICES
Chair / *Presidente*: Ivan Carabante (SE)

Despite the efforts to ban or restrict the use of per- and polyfluoroalkyl substances (PFAS), they are still found in products, wastewater, waste and landfill leachate. Due to their persistence, PFAS circulation in the environment is expected to last for many decades even after their cessation. The extent of PFAS contamination and the awareness of their risks have been driving the development of treatment techniques. Most of the technologies that are considered when managing PFAS-containing waste and leachates are based on retardation of PFAS spreading through adsorption on e.g. reactive carbon or on separation technologies. This principle is partly effective as not all PFAS molecules have affinity for organic matter and also requires further management of sorbents. Techniques that could cost-effectively destroy PFAS are also highly relevant and sought by owners of waste management facilities, contaminated sites and remediation technology companies and thus urgently need to be developed. Joint efforts of experts of various disciplines are necessary to address this challenge of removing PFAS from circulation. The outcomes have a high value for society at large and the entire environment. Over the last years, a PFAS task group within IWWG was established. The group has been working with the management of PFAS-contaminated materials. The development done by this task group will be presented in this workshop, as well as the next steps to tackle the issue will be discussed.

Ivan Carabante - leader of IWWG PFAS Task Group, Luleå University of Technology ()
Introduction to the PFAS topic and update on the work done by the PFAS task group at IWWG

Igor Travar, Anders Kihl - Ragn-Sells (SE)
Needs of PFAS research for a waste management company

SESSION F12 / / 17th October 2025 09:00 -10:30
IRACE WORKSHOP: CIRCULAR ECONOMY PERFORMANCE INDICES
Chair / *Presidente*: Marco Frey (IT) - to be confirmed

Introductory lectures:

M. Firoz A., M. Shajan, N. Nandini, G.K. Varghese, S. Thiyyakkandi (IN)
A scoring to system to evaluate the performance of entities at various levels of an MSW management system

H. Cai, Z. Duan, J. Lv (CN)
The Zero-Waste Index as an urban governance tool for solid waste management: empirical evidence from Chongqing

SESSION F13 / / 17th October 2025 11:00 -12:30
WORKSHOP: USE OF C&D WASTE IN CEMENT INDUSTRY
Chair / *Presidente*: TBD

Introductory lectures:

M. Bohá?, M. Krej?í Kotlánová, D. Kubátová, M. Nguyen, J. Holub, J. Švec (CZ)
Calcined waste materials as SCMs for lower GWP of mansory and plastering mortars

D. Over, E. Ayas (TR)
Utilization of High Alumina and High Magnesia Refractory Brick Waste Mix in Cement Mortar

SESSION G01 / / 13th October 2025 15:30 -17:00
ITALIAN SESSION
Chair / *Presidente*: TBD

Further details coming soon.

SESSION G02 / / 13th October 2025 17:30 -19:00
ITALIAN SESSION
Chair / *Presidente*: TBD

Further details coming soon.

SESSION G03 / / 14th October 2025 09:00 -10:30
ITALIAN SESSION
Chair / *Presidente*: TBD

Further details coming soon.

SESSION G04 / / 14th October 2025 11:00 -12:30
WORKSHOP: GESTIONE SOSTENIBILE DEI RIFIUTI CONTENENTI AMIANTO: STATO DELL'ARTE E PROSPETTIVE
Chair / *Presidente*: Raffaello Cossu (IT)

Further details coming soon.

SESSION G05 / / 14th October 2025 17:30 -19:00
WORKSHOP: BEST PRACTICES FOR OPTIMIZING LANDFILL BIOGAS MANAGEMENT
Chair / *Presidente*: David Agudelo-Romero (FR)

The session will focus on best-in-class landfill gas (LFG) management practices, innovative monitoring and mitigation technologies, and policy frameworks to support landfill biomethane as a key contributor to the energy transition.
Landfills remain the third-largest source of anthropogenic methane emissions worldwide, necessitating advanced mitigation strategies. The EU's target to reduce landfilling of municipal waste to 10% by 2035 will reduce overall waste disposal, but methane emissions from remaining landfills will continue to be significant. Studies show that improving LFG capture rates can cut methane emissions by 50% and increase biomethane production by 26%, contributing to the RepowerEU goal of 35 bcm of biomethane production by 2030.
This interactive workshop will bring together waste management operators, policymakers, and researchers to discuss:

- best-in-class landfill gas valorization techniques and case studies from industry leaders;
- innovative methane monitoring and reporting frameworks to enhance efficiency;
- regulatory challenges and opportunities for integrating landfill biomethane into national energy policies.

Through short introductory presentations and active audience discussions, the workshop aims to define concrete strategies to optimize landfill gas valorization while aligning with circular economy principles.

SESSION G06 / / 15th October 2025 09:00 -10:30
WORKSHOP: LOW TEMPERATURE THERMAL TECHNOLOGIES - STATE OF ART AND PERSPECTIVES
Chair / *Presidente*: TBD

Introductory lectures:

F. Rizkianto, F. Mulya Iresha, T. Ishigaki, M. Yamada (JP)
Optimizing the torrefaction of organic residues from municipal solid waste streams

R. Gorji, R. Bhowmick, K. Kirtania, L. Carvalho (SE)
Using hydrothermal carbonization from horse manure to improve soil fertility: findings from pot experiments

SESSION G07 / / 15th October 2025 11:00 -12:30
WORKSHOP: EFFICIENCY OF WM POLICIES IN UNIVERSITIES
Chair / *Presidente*: Maria Cristina Lavagnolo, Giovanni De Feo (IT)

Further details coming soon.

SESSION G08 / / 15th October 2025 17:30 -19:00
WORKSHOP: COMMUNICATION
Chair / *Presidente*: TBD

Introductory lectures:

M. Struk (CZ)
Communication strategies and municipal waste management performance

D. Gamble, S. Mason-Jones, R. Cavallo, L. Xuereb (AU)
Navigating the social media maze: overcoming challenges to waste infrastructure approvals in the online world

SESSION G09 / / 16th October 2025 09:00 -10:30
WORKSHOP: FROM WASTE TO VALUE BATTERY: SUCCESS FACTORS FOR AN EFFICIENT TAKE-BACK SYSTEM FOR BATTERIES
Chair / *Presidente*: Nils Wieczorek (DE)

This interactive workshop focuses on the success factors of efficient battery collection systems in an international context. Together with the participants, we will examine proven models from across Europe, analyze challenges faced in different countries, and collaboratively develop ideal take-back system designs. An innovation session on forward-looking topics such as digitalization, design for recycling, and closed-loop systems will round off the workshop.

SESSION G10 / / 16th October 2025 11:00 -12:30
WORKSHOP: BATTERIES IN THE ELECTROMOBILITY SECTOR: STATE OF ART, PERSPECTIVES AND SUSTAINABILITY
Chair / *Presidente*: TBD

Introductory lectures:

N. Wieczorek, G. Chryssos (DE)
Challenges and strategies for sustainable recycling of Lithium-Iron-Phosphate Batteries (LFP)

A. Spindlegger, L. Slotyuk, A. Jandric, R. Gabbay De Souza, S. Prenner, F. Part (DK)
Environmental performance of second-life lithium-ion batteries repurposed from electric vehicles for household storage systems

SESSION G11 / / 16th October 2025 17:30 -19:00
WORKSHOP: SUSTAINABLE MANAGEMENT OF WASTE CONTAINING ASBESTOS: STATE OF ART AND FUTURE PERSPECTIVES
Chair / *Presidente*: Raffaello Cossu (IT)

Further details coming soon.

SESSION G12 / / 17th October 2025 09:00 -10:30
EU WORKSHOP: CLOSING KNOWLEDGE GAPS ON PFAS DEGRADATION IN THERMAL WASTE AND REMEDIATION SYSTEMS
Chair / *Presidente*: Tarek Rashwan (UK)

This roundtable workshop will provide an opportunity to present a new EU project idea, discuss it with colleagues from all around the world, and find potential collaborations and partners from industry and academia.
Interested delegates may freely join the discussion.

1. Project Title / Idea name:
Closing knowledge gaps on PFAS degradation in thermal waste and remediation systems

2. Organizers:

- Tarek Rashwan, Open University (UK)
- Fatemeh Khodaparastan, Open University (UK)
- Felicia Fredriksson, Örebro University (SE)
- Leo Yeung, Örebro University (SE)
- Igor Travar, Ragn Sells (SE)

3. Relevant EU Programme and Call, if already identified (e.g. Horizon Europe, Erasmus+, Interreg, LIFE, Digital Europe, etc.):
Ideally targeting the development of a COST Action first, to facilitate collaboration to build a Horizon EU consortium.

4. Project Idea:
Per- and polyfluoroalkyl substances (PFAS) have been central compounds used in a range of modern materials – everything from fire-fighting foams to cosmetics. Altogether, there are thousands of synthetic compounds within the PFAS classification. It is now widely understood that PFAS contamination poses severe environmental risks. Due to PFAS' toxic and persistent properties, small concentrations can bioaccumulate in the food chain, affecting human and environmental health. Activated carbon or ion exchange resin have been used to remove PFAS from drinking water. Anesthetic gases such as isoflurane, desflurane, and sevoflurane have been widely used in medical applications; these gases are trapped in activated carbon after use for disposal. Other PFAS-contaminated materials necessitate active treatment, e.g., municipal solid wastes, sewage sludge, and hazardous wastes.
Thermal treatment methods have shown strong promise in breaking PFAS down at high-temperature conditions (e.g., above 850°C). However, there many research gaps regarding the fate of PFAS in these thermal systems, which are critical to solve now because even small concentrations of PFAS – e.g., from incomplete destruction – can pose long-lasting and challenging environmental risks for future generations. This project aims to address this key research gap by coordinating thermal waste, remediation, and PFAS expertise globally to understand what system operation conditions are needed to ensure robust PFAS degradation.

5. Project Maturity Level:
Early-stage concept

6. Partnership / References / Research Competencies (of partners already involved):
Academic partners:

- Open University, University of Strathclyde, University College Longon (UK) / 1016/j.wasman.2023.04.008, 10.1016/j.pecs.2020.100869 / Smouldering technology development

- Örebro University (SE) / 1016/j.chemosphere.2010.01.045, 10.1021/acs.est.4c01844 / Analytical measurement
- Queens University (CA) / 1016/j.scitotenv.2020.142722, 10.1016/j.scitotenv.2023.164137 / PFAS remediation

Industry partners:

- Ragn Sells (SE) / www.ragnsells.com / Waste management company
- Savron (CA) / www.savronsolutions.com / Smouldering waste treatment technology provider
- 2encapsulate (UK) / 2encapsulate.com / PFAS remediation

7. Requirement of potential partners:
Academic, industry, and public body collaborations would be highly welcomed.

8. Notes:
The organizers are interested in EU collaborators with interest in understanding PFAS degradation in thermal remediation and waste treatment systems, e.g., incineration, gasification, pyrolysis, hydrothermal carbonisation. Ideally, those interested will have access or ambitions to understand these questions laboratory and commercial settings. Experts with PFAS degradation modelling would also be highly welcomed.

SESSION PP / /
POSTER SESSION

J. Pilecka-Ulcugaceva, M. Bertins, K. Siltumens, I. Grinfelde (LV)
Potential Indicators of Household Waste Burning in Urban Air: A Trace Element Analysis from Jelgava

A. Dupas, V. Decottignies, R. Moscoviz, M. Rouez, M.-C. Magnié (FR)
Sampling and characterization approach for plastic packaging waste composition at recycling plants

B. Amante, P. D'Abzac, E. Tapia (ES)
Bolivia's integrated waste management: a regulatory approach for sustainability and public health

B. Tomaszewska, M. Mukti, M. Tyszer, M. Kaczmarczyk (PL)
Circular economy in the field of waste geothermal water management

V..C. Andrade de Medeiros, F.J. Moura, F. de Miranda Gonçalves (BR)
Thermal characterization of malt bagasse biomass and biochar produced via hydrothermal liquefaction

S. Fakhrona, A.A. Vinton, A. Francis, C. Angelika, A.Q. Mairizal, J. Wu (SE)
Material flow analysis of waste bank systems in Depok, West Java, Indonesia

L. Olazar, J. Alvarez, M. Artetxe, G. Lopez, M. Olazar (ES)
Influence of process parameters on the pyrolysis and in-line dry reforming of HDPE

R.H. Kim, S.I. Yun, S.H. Song, S.M. Kim, J.H. Ko, J.E. Kim, J.K. Park, N.H. Lee (KR)
Optimization of Landfill Aeration Systems for Methane Mitigation: A Case Study

P. Romano, S. Rahmati, R. Adavodi, I. Birloaga, F. Vegliò (IT)
Hydrometallurgical Process Scale-Up for Rare Earths Recovery from End-of-Life NdFeB Magnets

R.S. Anand, T.K. Sudheesh, G.K. Varghese (IN)
Evaluating and ranking chemical grouting techniques for sustainable ground improvement: a multi-criteria decision-making approach

L. Granheim, U.S. Minke (DK)
Development of end-of-waste criteria for enhanced waste valorization and circularity: a case study on aggregate sludges

J.K. Park, R.H. Kim, S. Yun, S.H. Song, T.J. Kim, S.M. Kim, N.H. Kim (KR)
Estimation of biodegradability changes using age-defined waste in municipal solid waste landfills: a case study

A. Mitzia, M. Jovi?evi?-Klug, D. Raabe, P. Jovi?evi?-Klug (DE)
Red mud residue after plasma reduction for soil remediation: a full circle of reuse combining two environmental goals in one go

D. Troast, N. Canova, I. Schoen, P. Tan (SE)
An evaluation of the social welfare impacts of informal silicon solar panel recycling in developing countries using the DPSIR Framework

E. Korzeniewska, M. Harnisz, K. Stefaniak, M. M?cik, P. Kruszewska, E. Felis, S. Bajkacz (PL)

Beta-lactams resistant Klebsiella pneumoniae in Polish hospital wastewater - A preliminary study

A. Messineo, A. Picone, C. Corrado, D. Ticali, M. Volpe (IT)
Waste to energy: hydrothermal carbonization of agro-waste for the production of high valuable solid biofuel

L. Vitola , D. Vaiciukyniene (LT)
Transforming Industrial By-Products and Wastes into Raw Materials in Sustainable Cement Applications

J. Di Mario, A.M. Gambelli, G. Gigliotti ()
Codigestion between agroindustrial wastes and weed plants to improve the biomethane yield and reduce CO2 process emissions: Brewery's Spent Grain and Lemna Minor case study

K. Pakzad, A. Volikov, M. Antonietti (DE)
Artificial Humic Substances: A Sustainable Solution for Antibiotics and Herbicide Removal

B. Rahardyan, E. R. Anggraini (ID)
Factors affecting recyclers to collect the UBC material (Case Study: Bekasi City, West Java)

A. Dall'Ara, P. Grandini, M. Rossetti, F. Marianini ()
How to combine Circular Economy and Regenerative Agriculture: POLLINA PAV case

A. López-Uceda, J. Aguilar-Herrera, A. Barbudo, R. Linares, A.P. Galvín (ES)
PLASOS Project: Optimization of sustainable concrete reinforced with recycled plastic fibres for low impact construction

J. Reichelt, S. Chattopadhyay, J. Kolb, E. Eiche, J. Wagner (DE)
Influence of different biogenic fuels on the quality of grate ashes and its reuse from biomass heat and power plants

M. Binti Mat Rajab, T. Ida (JP)
A study on wood powder as a solid biomass for bio-coke fabrication

S. Dias, A. Cubas (BR)
Circular management of sewage sludge in Brazil: implementation of PLANEC to mitigate climate change and promote the circular economy in sanitation

A.M. Spies, G. Koinig, N. Kuhn, B. Küppers, R. Pomberger (DE)
Evaluating parameters influencing color detection in PET bottle sorting

J. Barbir, A. Dobri, E. Carpio-Vallejo, J. Gäbken, L. Wuestenberg (DE)
Single-use Plastic Waste Reduction in Households Across the Baltic Sea Region

G. Tassielli, L. Cananà, M. Spalatro (IT)
Life cycle assessment of waste management: comparison of biogas emissions using drone quantification methods and other data sources.

K. Chamrádová, P. Basinas (CZ)
Preliminary study on the potential of food waste to constitute substrate for the production of a hydrogen-rich gas with implementation of dark fermentation process

P. Basinas, M. Luxová, K. Chamrádová, P. Wojnarová (CZ)
Characterization and degradation potential of commercial bioplastic shopper bags in long term anaerobic digestion assays

K. Paw?ska, Sz. Kilian, E. Burszta-Adamiak (PL)
Sustainable Using of Greywater in Single-Family Buildings

J. Rosik, K. ?wiechowski, S. Stegenta-D?browska (PL)
Biological Neutralization of Heracleum sosnowskyi Through Composting: Evaluation of Furanocoumarin Degradation

N. Suresh, E. Ivanauskas, A. Augonis, L. Steponavi?ius, J. Mockien? (LT)
An environmentally friendly artificial aggregate for concrete made from municipal solid waste incinerator bottom ash by using CO2 curing

M. Statkauskas, V. Vai?iukynas, G. Balevi?ius, D. Vai?iukynien?, A. Kantautas, D. Nizevi?ien?, D. Ž?rinskas, R. Bistrickait?, G. Stelmokaitis (LT)
Environmentally friendly binding materials based on Ordinary Portland cement, clinoptilolite and silica gel by-product

P. Lyshtva, Y. Kobets, V. Voronova, L. Kliu?ininkas, A. Torkelis, E. Carpio-Vallejo, A, Dobri, J. Barbir (EE)
Evaluating the Carbon Footprint of plastic waste management from MSW fraction across three cities in the Baltic States

V. López-Grimau, G. Benveniste, B. Amante (ES)
Life Cycle Assessment of Wastewater Treatment in a Textile Printing Facility