

SUM 2025



**8th Multidisciplinary Symposium
on Circular Economy and
Urban Mining**

21-23 May 2025, Procida, Italy

**PRELIMINARY
PROGRAMME**

(Updated on 28 April 2025)

Wednesday 21 May 2025			
09:30 - 10:45	OPENING SESSION Welcome addresses and introductory lectures Chair: Raffaello Cossu (IT)		
11:15 - 12:30	SESSION A01 Education and Communication Chair:	SESSION B01 Critical Raw Materials Chair:	SESSION C01 Energy is Environment Chair: R. Cornetta (IT)
12:30 - 15:00	Lunch break		
15:00 - 16:15	SESSION A02 Tools for improving performance in Circular Economy Chair:	SESSION B02 Textile Waste recycling Chair:	SESSION C02 Workshop: Presentazione del progetto REA - Rassegna dell'Energia e dell'Ambiente Chair: A. Fantappiè (IT)
16:30 - 17:45	SESSION A03 Circular resources from insects Chair:	SESSION B03 Strategies and policies Chair:	SESSION C03 Interactive lab with young researchers Chair:
from 17:45 onwards	SOCIAL EVENT: Welcome reception with Procida-style apericena and farm experience		

Thursday 22 May 2025			
09:30 - 10:45	SESSION A04 One Health perspectives Chair:	SESSION B04 Advanced solutions in Circular Economy Chair:	SESSION C04 Workshop: Urban Mining in construction sector Chair: M. Mori, D. Cerra, M. Escamilla (IT)
11:15 - 12:30	SESSION A05 LCA as a tool for evaluating Circular Economy performance Chair:	SESSION B05 Bioenergy and biofuels Chair:	SESSION C05 Recovery of materials from photovoltaic panels and permanent magnets Chair:
12:30 - 15:00	Lunch break		
13:00 - 14:30	IRACE - General Assembly Chair: R. Cossu (IT)		
15:00 - 16:15	SESSION A06 Valorization of resources from waste waters Chair:	SESSION B06 Recovery of metals from industrial waste Chair:	SESSION C06 Workshop: Emerging infrastructures for circular and regenerative territories Chair: M. Rigillo (IT)
16:45 - 18:00	SESSION A07 Workshop: Circular economy application in domestic sewage management Chair: L. Migliore, N. Gusmerotti, G. Costa (IT)	SESSION B07 PFAS in Circular Economy Chair:	SESSION C07 Recovery of resources from spent batteries Chair:
from 18:30 onwards	SOCIAL EVENT: Procida Boat Tour + Sunset Cocktail on board		

Friday 23 May 2025			
09:30 - 10:45	SESSION A08 Food waste management in Circular Economy Chair:	SESSION B08 Plastics and Bioplastics Chair:	SESSION C08 Workshop: La gestione circolare dei rifiuti e delle risorse nelle Università Italiane Chair:
11:15 - 12:30	SESSION A09 MICS - Made in Italy for Circular Economy Chair: M.C. Lavagnolo (IT)	SESSION B09 Recovery of construction and demolition waste Chair:	SESSION C09 The role of waste pickers in resource recovery Chair:
12:30 - 15:00	Lunch break		
15:00 - 16:15	SESSION A10 Workshop: Sustainable landfilling vs. soil sink Chair: R. Cossu (IT)	SESSION B10 Waste Biomass Recovery Chair:	SESSION C10 Recovery of inerts Chair:
16:45 - 18:00	CLOSING SESSION Chair:		
from 20:00 onwards	SOCIAL EVENT: Closing dinner and beach party		

Poster Session - from 21 to 23 May 2025				
09:00 - 18:00	POSTER PRESENTATIONS WILL BE ACCESSIBLE TO SYMPOSIUM DELEGATES AT ALL TIMES			

DAY 1

Wednesday, 21 May

SESSION OP / / 21st May 2025 09:30 -10:45

OPENING SESSION

Chair / *Presidente*: Raffaello Cossu (IT)

- Welcome addresses
- Introductory lecture:

E. Rubaltelli (IT)

Reducing overconsumption and waste in fashion: psychological drivers and technology acceptance

SESSION A01 // 21st May 2025 11:15 -12:30

EDUCATION AND COMMUNICATION

Chair / *Presidente*: To be defined

D. Scrinzi, D. Bona, S. Bertolini, S. Silvestri (IT)

Design and implementation of an educational role-play activity about a bioeconomy scenario

G. De Feo (IT)

Greenopoli: an innovative approach to environmental education and sustainable behavior

B. Riccardi, M. Mitrovic, M. De Carli, U. Turrini, M.C. Lavagnolo (IT)

UniZEB, a Laboratory Building to promote resource circularity and energy savings

M. Derito, S. Longo, M. Cellura, A. Affranchi, S. Sagone (IT)

The impact of gamification and interactive activities on students' environmental awareness: a case study in a school

SESSION B01 / / 21st May 2025 11:15 -12:30

CRITICAL RAW MATERIALS

Chair / *Presidente*: To be defined

M.C. Lavagnolo, S. Gross (IT)

An overview on Critical Raw Materials and Rare Earth

G. Xu, X. Zeng (CN)

Classification and quantification of anthropogenic mineral resource

M. Peer, B. Berninger, T. Fehn, A. Hofmann (DE)

Recovery of Indium and Rare Earth Elements from light-emitting diodes

A. Goudarzi, A. Oulad Mansour, M.G. Genduso, C. Cristiani, E. Mesto, M. Lacalamita, E. Schingaro, G. Mongelli, P. Mameli, M. Bellotto (IT)

The recovery of rare earths and valuable metals from the red muds of the Eurallumina site in Porto Vesme, Sardinia, Italy

SESSION C01 // 21st May 2025 11:15 -12:30

ENERGY IS ENVIRONMENT

Chair / *Presidente*: Roberto Cornetta (IT)

Introductory lecture:

R. Cornetta (IT)

Technical and economic-legal considerations - Importance of an efficient communication

SESSION A02 // 21st May 2025 15:00 -16:15

TOOLS FOR IMPROVING PERFORMANCE IN CIRCULAR ECONOMY

Chair / *Presidente*: To be defined

T. Beltrani, C. Brunori, P.R. Di Palma, M. La Monica, M. Langone, S. Viglia, E. Rio, G. Pingitore, W. Ganapini, R. Morabito (IT)

Resource audit for the Fabric of Saint Peter in Vatican City: a preliminary analysis

J.J. Stanković, I.Marjanović, M. Stanojevic (RS)

Assessing circular economy performance in the European Union: a benefit of doubt approach

M. Coscia, A. De Chiara (IT)

Industrial symbiosis within industrial parks: key enabling factors

G. Felici, G. Corsi, S. Fabbri, M. Niero, M.C. Lavagnolo (IT)

Valuing ecosystem services as a strategic tool to support circular economy in waste management

SESSION B02 // 21st May 2025 15:00 -16:15

TEXTILE WASTE RECYCLING

Chair / *Presidente*: To be defined

E. Di Maria, M.C. Lavagnolo, L. George, R.A. Siddiqi (IT)

Textile recycling supporting and enhancing industrial symbiosis

A. Bonoli, S. Hazal Akyildiz, P. Marini, A. Fiorucci, S. Pennellini, R. Bellopede (IT)

A preliminary study based on life cycle assessment of some separation techniques for polycotton textile waste recycling

A. Maiello, A. Gayraud (NL)

Migrating knowledge. Skills and practices of textile repair across migrant communities. The case of The Hague South West (Netherlands)

A.P. Provin, A.R. de Aguiar Dutra, J.B.S.O. de Andrade Guerra, A. Leal Vieira Cubas (BR)

Circular business model for smallholder farmers: utilizing banana farming waste for textile production

SESSION C02 // 21st May 2025 15:00 -16:15

WORKSHOP: PRESENTAZIONE DEL PROGETTO REA - RASSEGNA DELL'ENERGIA E DELL'AMBIENTE

Chair / *Presidente*: Andrea Fantappiè (IT)

Italian Session - Further details to be announced soon.

SESSION A03 // 21st May 2025 16:30 -17:45
CIRCULAR RESOURCES FROM INSECTS

Chair / *Presidente*: To be defined

L.M.D.R.S. Martins, A.P.C. Ribeiro, A. Figueiras (PT)

InsectERA - Green transition towards environmental sustainability based on a circular economy

M. Henjak, V. Grossule, R. Cossu (IT)

Treatment of food processing wastewaters by using Black Soldier Fly larvae

A.P.C. Ribeiro, L.M.D.R.S. Martins (PT)

Chitosan from crustaceans vs. insects: a comparative chemical assessment of crab and black soldier fly-derived chitosan

V. Grossule, M. Henjak, G. Beggio, J.K. Tomberlin (IT)

Biowaste treatment using black soldier fly larvae: effect of Substrate macronutrients on process performance

SESSION B03 // 21st May 2025 16:30 -17:45

STRATEGIES AND POLICIES

Chair / *Presidente*: To be defined

A. Zatti (IT)

Taxation and the Circular Economy: perspectives and pitfalls with a specific focus on the Italian experience

A. Ramos (PT)

Bridging circular economy and society: evaluating the social acceptance of circular strategies

M.A. Rosen (CA)

Integrating waste recovery and energy polygeneration to support a circular economy

F. Tommasi (IT)

Presentation of the Italian project “Spesa Sballata® Dimensione Italia” 2024-2026 and its “Linee di Indirizzo Igienico Sanitarie Spesa Sballata® Dimensione Italia -LISSBA”

SESSION C03 // 21st May 2025 16:30 -17:45
INTERACTIVE LAB WITH YOUNG RESEARCHERS
Chair / *Presidente*: M.C. Lavagnolo (IT)

Further details to be announced soon.

DAY 2

Thursday, 22 May

SESSION A04 / / 22nd May 2025 09:30 -10:45

ONE HEALTH PERSPECTIVES

Chair / *Presidente*: To be defined

M. Ferrante (IT)

One Health Conference activity on human rights and climate justice

N. Fraeyman, L. Demarré, K. Vanderwee, S. Mahlic, V. Duprez, S. Malfait, S. Huysfeld, J. Dewulf (BE)

Feasibility of the application of circular economy in health care

G. Oliveri Conti, M. Dettori, P. Rapisarda, E. Pulvirenti, M. Ferrante (IT)

From correct waste management to health protection: a focus on nanotoxics

A. Ndiforngu, C.A. Cossu, M.C. Lavagnolo (IT)

Microplastics in human and animal organisms

SESSION B04 / / 22nd May 2025 09:30 -10:45

ADVANCED SOLUTIONS IN CIRCULAR ECONOMY

Chair / *Presidente*: To be defined

D. Panepinto, M. Ravina, M. Zanetti (IT)

Consequences and risk modeling of natech in industrial environments

F. Bavali, S. Shahrbandi, G. Galluccio (IT)

Digital fabrication as a circularity driver in the wood design industry. A scoping review

M. Costa, A. Coppola, F.S. Marra, D. Piazzullo (IT)

Simulated Database and AI Modelling Support for the Development of Biomass-Based Hybrid micro Power Grids

X. Zhang, D. Yue (CN)

Investigating the Activation Effect of Synthetic Humic Acid on Soil Insoluble Inorganic Phosphorus

SESSION C04 // 22nd May 2025 09:30 -10:45

WORKSHOP: URBAN MINING IN THE CONSTRUCTION SECTOR

Chair / *Presidente*: M. Mori, D. Cerra, M. Escamilla (ES)

This workshop, inspired by the *Design Sprint* methodology, explores the role of urban mining in the circular economy, focusing on identifying key stakeholders and initiatives. Participants will collaboratively create a map showcasing European initiatives and a poster to classify stakeholders across the construction value chain. Interactive group activities will facilitate discussions on mapping actors, identifying barriers, and uncovering opportunities for scaling up urban mining practices.

Key Takeaways: Fundamental understanding of urban mining barriers and opportunities in the construction sector. Overview of existing urban mining initiatives, stakeholders, and solutions/tools in Europe. Each participant will receive a report summarizing the workshop's findings.

Introductory lecture:

M. Mori, D. Cerra, M. Escamilla (ES)

Interactive mapping of initiatives and opportunities for Urban Mining in the European construction sector, within the INBUILT Project

SESSION A05 // 22nd May 2025 11:15 -12:30

LCA AS A TOOL FOR EVALUATING CIRCULAR ECONOMY PERFORMANCE

Chair / *Presidente*: To be defined

A. Becci, A. Amato, F. Beolchini (IT)

Life cycle assessment as a tool to achieve environmental sustainability in the circular economy

H. Zarafshani, J. Van Caneghem, G. Granata (BE)

LCA-TEA integrator: an open-source tool for integrated sustainability and economic assessment of biotechnological innovations: exploring qualitative, quantitative combined indicator-based, and preference-based integration methods

S. Viglia, T. Beltrani, A. Picarelli, C. Chiavetta, R. Dublino, G. Formisano (IT)

The role of LCA in sustainable agricultural practices: a case study of the HARNESSTOM Tomato Breeding Project

F. Albano, C. De Bernardi, F.M. Abbate, E. Baldereschi, M. Niero, M. Frey (IT)

Bridging the gap: how GHG accounting tools can support beer companies in the implementation of circular economy strategies

SESSION B05 / / 22nd May 2025 11:15 -12:30

BIOENERGY AND BIOFUELS

Chair / *Presidente*: To be defined

F. Illuminati, M. Schiavon, M.C. Lavagnolo (IT)

Energy and material recovery from agri-food waste: optimizing feedstock mixture for thermocomposting and pyrolysis

S. Dell'Aversano, K. Gallucci, G. Vanga, A. Di Giuliano, L. Rossi, C. Villante (IT)

Production process and scaling up of green diesel as an e-biofuel

G. Trancone, G. Policastro, M. Fabbricino (IT)

Waste-to-Energy in agro-industries: experimental approaches to enhancing energy output from food by-products

A. Randazzo, A. Folino, F. Tassi, F. Tatàno, S. de Rosa (IT)

Engineering and geochemistry in the bioenergy potential estimations from waste biomasses through lab-scale anaerobic digestion

SESSION C05 // 22nd May 2025 11:15 -12:30

RECOVERY OF MATERIALS FROM PHOTOVOLTAIC PANELS AND PERMANENT MAGNETS

Chair / *Presidente*: To be defined

A. Bonoli, F. La Marca (IT)

Innovative technologies for recovery and recycling of rare earth elements (REEs) for neodymium-iron-boron (NdFeB) permanent magnets in high-tech and green energy applications

L. Sparascio, G. Torta, D. Cespi, L. Ciacchi, I. Vassura, F. Passarini (IT)

Recycling of electric motors for the recovery and valorization of NdFeB magnet content

F. Miserocchi, F. Coustier, K. Brunelli, P. Cerchier (IT)

Material recovery from photovoltaic panels by means of thermal treatment: the effect of backsheet removal

A.L. Sanna (IT)

From End-of-Life Magnets to Functional Carbon Materials: A Circular Strategy for Resource Recovery

SESSION A06 // 22nd May 2025 15:00 -16:15

VALORIZATION OF RESOURCES FROM WASTE WATERS

Chair / *Presidente*: To be defined

K. Ruskova, M. Mladenov, L. Manoilova (BG)

Heavy metal ions removal from wastewater using wood-based activated carbon

D. Di Trapani, M. Carciola, S.F. Corsino, A. Cosenza, G. Di Bella, G. Mancini, L. Gurreri, M. Langone, D. Mattioli, L. Petta, G. Sabia, A. Luciano, G. Gravina, G. Sciortino, M. Morello, M. Torregrossa, G. Viviani (IT)

Assessing energy efficiency in wastewater treatment plant: a benchmark analysis from the SMARTEE-PLANTS project

O. Johansson, M. Pettersson (SE)

Waste or non-waste: reutilization of sewage sludge?

F. Cecchini, K. Ayedi, V. Innocenzi, G. Mazziotti di Celso, M. Prisciandaro (IT)

Advancing water circularity: a simulation of hydrodynamic cavitation and membrane processes for sustainable industrial wastewater reuse

SESSION B06 / / 22nd May 2025 15:00 -16:15

RECOVERY OF METALS FROM INDUSTRIAL WASTE

Chair / *Presidente*: To be defined

F. Rossi, C. De Bernardi, M. Niero, M. Frey (IT)

Empowering foundries for sustainability: a user-friendly eco-design tool for environmental self-assessment

E. Giansante, A. Fabrizi, G. Timelli (IT)

Influence of impurity elements on the castability of recycled 6xxx series Al alloys

F. Zeng, J. Van Caneghem, G. Granata (BE)

Mechanochemical processing for efficient recycling of spent SCR catalysts

SESSION C06 // 22nd May 2025 15:00 -16:15

WORKSHOP: EMERGING INFRASTRUCTURES FOR CIRCULAR AND REGENERATIVE TERRITORIES

Chair / *Presidente*: Marina Rigillo (IT)

The workshop seeks to develop an effective analysis about the implementation of emerging infrastructures (Circularity Hubs) within the general frame of urban regeneration programs based on circularity principles. It will particularly focus on sharing the first advances in applying these concepts to the regeneration of critical urban areas (disused, abandoned), implementing an integrated approach to the project of a new type of urban infrastructure which responds to the emergent requests of merging sustainability and circularity assumptions with the need of new public services and spaces for urban life and innovative welfare policies. The workshop aims at feeding the scientific discussion about the development of local networks that integrate equipment and services for the circularity of materials and goods within the general frame of social innovation, actively contributing to the transition towards the circular economy. According to this position, the specific objective concerns the discussion about potential and criticalities in transferring theoretical concepts of circularity and urban metabolism into operative design experiences, intertwining technical feasibility with human, physical, cultural, organic and socio-ecological components.

SESSION A07 // 22nd May 2025 16:45 -18:00

WORKSHOP: CIRCULAR ECONOMY APPLICATION IN DOMESTIC SEWAGE MANAGEMENT

Chair / *Presidente*: L. Migliore, N. Gusmerotti, G. Costa (IT)

L. Migliore, A. Alabiso, R. Braglia, V. Cantelmo, R. Congestri, M. Meraviglia, A. Nebuloni, F. Scuderi, F. Costa (IT)

Biotechnology for urban greening: the zero mile system© for the reuse of dishwasher wastewater

L. Migliore, A. Alabiso, A. Appolloni, R. Baciocchi, R. Braglia, A. Canini, V. Cantelmo, R. Congestri, F. Costa, G. Costa, S. de A. Bombardelli Miranda, N.M. Gusmerotti, M. Longo, C. Mazzuca, M. Meraviglia, L. Micheli, A. Nebuloni, F. Scuderi, J. Valeri, S. Orlanducci (IT)

From microfibers to nanodiamonds: the upcycling and reuse of washing machine wastewater

J. Valeri, G. Costa, R. Baciocchi (IT)

Assessment of the environmental benefits of a combined process for upcycling and reusing washing machine wastewater

N.M. Gusmerotti, S. de Assis Bombardelli Miranda (IT)

Developing case scenarios: how to create a baseline

SESSION B07 // 22nd May 2025 16:45 -18:00

PFAS IN CIRCULAR ECONOMY

Chair / *Presidente*: To be defined

G. Beggio (IT)

Overview on PFAS in Circular Materials

J. Van Caneghem, A. Verstegen, G. Torremans, J. Hofman, P. Berghmans, G. Otten, S. Herremans, E. Van Meenen, L. De Ren, A. Van Brecht (BE)

Estimation of the destruction and removal efficiency for PFAS in a hazardous waste incinerator

G. Beggio, A. Ndiforngu, R. Dall'Anese, T. Bonato, M.C. Lavagnolo (IT)

Assessment of per- and polyfluoroalkyl substances in recycled plastics: screening and migration potential

M. Šyc, J. Hyks, O. Hjelmar, E. Korotenko, T. Cajthaml (CZ)

Per- and polyfluoroalkyl substances (PFAS) in incineration solid residues

SESSION C07 // 22nd May 2025 16:45 -18:00

RECOVERY OF RESOURCES FROM SPENT BATTERIES

Chair / *Presidente*: To be defined

J. Bachér, I. Korolev (FI)

Enhanced gravity separation of black mass from spent LFP batteries

H. Li, Y. Qin, D. Yue (CN)

Recycling of lithium batteries in China

G. Dodbiba, K. Pitcharee, T. Fujita (JP)

Optimization of lithium electrosorption from brine deposits for next-generation battery production

DAY 3

Friday, 23 May

SESSION A08 // 23rd May 2025 09:30 -10:45

FOOD WASTE MANAGEMENT IN CIRCULAR ECONOMY

Chair / *Presidente*: To be defined

E. 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

K. Kawai (JP)

Separate food waste collection contributing to municipal solid waste recycling in Japan

E. Sigala, C. Chroni, K. Abeliotis, K. Lasaridi (GR)

Sociodemographic determinants of household food waste underreporting as assessed utilizing questionnaires

A. Pezzani, I.M. Cigognini, S. Chierici, P. Ly Pham, C. Zurlini (IT)

The project AGRITOMACTIVE: Valorization of green unripe tomatoes through sustainable extraction of cutin for applications in food packaging

SESSION B08 / / 23rd May 2025 09:30 -10:45

PLASTICS AND BIOPLASTICS

Chair / *Presidente*: To be defined

D. Panepinto, I. Bianco, M. Ravina, B. Ruffino, M. Zanetti (IT)

Hard-to-recycle plastics in the automotive sector

M.G. D'Amato, A. Cesaro, G. Oliva, M. Bruno, T. Zarra, V. Naddeo, V. Belgiorno (IT)

Outcomes of urban mining from waste bale processing

K. Houssini, J. Li, Q. Tan (CN)

Complexities of the global plastics supply chain revealed in a trade-linked material flow analysis

S. Pocoví-Martínez, L. Grima-Carmena, S. Ibiza-Palacios, L. Martín-Román, C. Camiña-Urgel, F. Bosch-Mossi (ES)

Eco-friendly demetallisation of ABS using biogenic lixivants

SESSION C08 // 23rd May 2025 09:30 -10:45

**WORKSHOP: LA GESTIONE CIRCOLARE DEI RIFIUTI E DELLE RISORSE NELLE
UNIVERSITÀ ITALIANE**

Chair / *Presidente*: To be defined

D. Boggiani (IT)

L'esperienza di UNIPV nell'ambito della SERR - Settimana Europea per la Riduzione dei Rifiuti

G. De Feo, F. De Martino (IT)

Economia Circolare nelle Università - L'evoluzione del sistema di raccolta differenziata all'Università di Salerno

SESSION A09 / / 23rd May 2025 11:15 -12:30

MICS - MADE IN ITALY FOR CIRCULAR ECONOMY

Chair / *Presidente*: Maria Cristina Lavagnolo (IT)

V. Poli, M.C. Lavagnolo (IT)

Transitioning to bioplastics in the circular economy

G. Venturelli, L. Guida, S. Mantero, P. Petrini, M. Levi (IT)

Mechanical and Chemical Recycling of Leather Waste into Composites Suitable for Diverse 3D Printing Techniques

C. Florio (IT)

New generations of leathers and circular materials in the perspective of industrial symbiosis

D. Caputo (IT)

MICS, Made in Italy for the Circular Economy

SESSION B09 / / 23rd May 2025 11:15 -12:30

RECOVERY OF C&D WASTE

Chair / *Presidente*: To be defined

S. Salhofer, A. Allesch, M. Huber-Humer, M. Hammerl, I. Do Nascimento Camargo, B. Kromoser (AT)
Circularity indicators in the construction sector

F. Faleschini, A. Conforti, F. Lollini, A. Abbà (IT)
Steelcrete: our vision for a sustainable concrete

A.P. Galvín, J.E. Aguilar Herrera, A. Barbudo, R. Linares, A. López-Uceda (ES)
Environmental leaching thresholds for recycled aggregates from C&DW: a proposal for End-of-Waste criteria in Spain

SESSION C09 // 23rd May 2025 11:15 -12:30

THE ROLE OF WASTE PICKERS IN RESOURCE RECOVERY

Chair / *Presidente*: To be defined

A.M. Rodrigues Costa de Castro, J. Gutberlet, V. Schalch (BR)

The role of waste pickers in advancing circular economy in North America

A.M. Rodrigues Costa de Castro, I.M. Benites, A. Moretti Martins, J. Gutberlet, V. Schalch (BR)

Brazilian waste pickers and the circular economy: what a just transition means in practice

R. Suresh Kumar, N. Chitralekha Narayanan (IN)

Beyond tokenistic integration: rethinking Extended Producer Responsibility for a just circular economy transition in India

B. Steuer (HK)

The informal recycling sector in Hong Kong: an indispensable facilitator for a circular economy transition beyond single-use plastics?

SESSION A10 // 23rd May 2025 15:00 -16:15

WORKSHOP: SUSTAINABLE LANDFILLING VS. SOIL SINK

Chair / *Presidente*: Raffaello Cossu (IT)

Introductory lecture:

R. Cossu (IT)

Differences between sustainable landfilling and soil sink - Definitions and design principles

SESSION B10 / / 23rd May 2025 15:00 -16:15

WASTE BIOMASS RECOVERY

Chair / *Presidente*: To be defined

K. Mella, M. Reyes, M.C. Diez (CL)

Formulation of a biofertilizer based on agroindustrial wastes for crops production in the context of climate change

M.R. di Cicco, I. Galante, A. Spagnuolo, A. Masiello, C. Vetromile, C. Lubritto (IT)

Optimizing biomass yield and waste recycling: the potential of twin-layers photobioreactors

M. Kriipsalu, K. Kenk, M. Ruutemann, K. Orupold (EE)

End-of-biowaste in Estonia

G. Cappai, G. Farru, M. Ghaslani, N. Marzban (IT)

Hydrothermal humification of olive pomace: a circular approach for the production of humic substances

SESSION C10 // 23rd May 2025 15:00 -16:15

RECOVERY OF INERTS

Chair / *Presidente*: To be defined

A. Piemonti, G. Plizzari, S. Sorlini (IT)

Street sweeping waste: state of the art and environmental characterization of the recovered inert materials

E. Korotenko, M. Šyc, J. Jadrný, V. Veselý, P. Mašín (CZ)

A novel approach to gypsum recovery from MSWI plants with sodium-based wet flue gas treatment systems: results, challenges and perspectives

A. Monsù Scolaro, E. Antonini, G. Cerri, L. Malfatti (IT)

Between scarcity and circularity of resources: technological innovation for granite scrap in Sardinia

L. Clerici, A. Piemonti, G. Plizzari, A. Conforti (IT)

Experimental study on the aggregate interlock in concrete with EAF slag aggregates

POSTER SESSION

POSTER SESSION // 21st May – 23rd May 2025 09:30 -18:00

V. Forlini, F. Marzotto, S. Gross, M. Carraro (IT)

Extraction of metals from industrial wastewater sludge with deep eutectic solvents: a proof of concept

M. Fanelli, E. Frapiccini, L. Alessandrini, G.P. Leone, M. Panfili, F. Donato, F. Girolametti, J.D. Coisson, L. Segale, A. Durazzo, M. Lucarini, G. Borsetta, A.F.G. Cicero, G. Sagratini (IT)

Valorization of fish waste for the extraction of vitamin D3 for nutraceutical applications

A. Leal Vieira Cubas, B. Bianchini Vali (BR)

Circular economy in cities: administrative strategies for implementation based on ISO 59004

A. López-Uceda, J.E. Aguilar Herrera, R. Pérez Alcántara, A.P. Galvín (ES)

Introducing the PLASOS Project: Optimization of sustainable concrete reinforced with recycled plastic fiber for low impact construction

D. Austen, M. Schleicher, I. Gebauer, K. Patzsch, E. Wilharm (DE)

Drying your hands with glucose - Paper towel waste as a substrate for diverse biotechnology

E. Pitacco, M. Pigato, C. Bernardini, L. D'Ambrosi, M. Forzan, K. Brunelli (IT)

Microwave-based pyrometallurgical process to produce ferrosilicon with PV cells from EoL PV panels

D. Sica, B. Esposito, S. Supino (IT)

Bridging circular economy and climate change in agri-food systems: a bibliometric exploration

K. Chamrádová, P. Basinas, Z. Rybková, K. Malachová (CZ)

Improvement Of The Methane Generation Potential Of The Anaerobic Digestion Solid Residue By Implementing A Biological Pretreatment With The Biomycete *L. Lacteus* At Various Conditions

E. Campos Felipe de Brites, F.J. Contreras Pineda (BR)

Nitrogen circularity in organic production in the federal district: perspectives for sustainable agroecological systems

P. Sessa, A. Simboli, L. Monaco (IT)

Electronic waste in the framework of Urban Mining and Urban Metabolism: an overview

S. Martinini, L. Sparascio, L. Ciacchi, F. Passarini (IT)

Assessment of circularity requirements for rare earth permanent magnets in e-drive motors