



National
Technical
University
of Athens



CYPRUS2025

25-28 JUNE
PAPHOS, CYPRUS



12th International Conference on Sustainable Solid Waste Management

cyprus2025.uest.gr



12th International Conference on Sustainable Solid Waste Management

WELCOME

On behalf of the Scientific and Organising Committee, I am pleased to welcome you to the **CYPRYS 12th International Conference on Sustainable Solid Waste Management**. The CYPRUS 2025 Conference is organised within the framework of the **LIFE-IP CYzero WASTE** (<https://www.cyzerowaste.com>) with the help and support of the **Department of Environment of Cyprus**.

As in the cases of the previous international conferences, the CYPRUS 2025 12th International Conference aims to make an additional step forward in the field of waste management through the promotion of innovative technologies and effective practices. We are happy to announce that the series of our conferences keeps attracting the attention of the academia, private and public sector local authorities and businesses. This is proven by the gradual increase in the numbers of participants, the participating countries, the abstracts received and papers presented during the conference. We expect to have about of 1,000 participants including both virtual participants and those traveling to Cyprus.

Every year significant effort is made to improve the quality of the papers and keep high standards. At the same time, efforts are continuous in order to achieve high quality services for the conference participants. It is also important to mention the introduction for the 7th time of the summer school prior to the conference. More than 50 participants will attend the summer school this year and our aim is also to continue and keep it in all our future conferences giving emphasis on different research fields every year.

The CYPRUS 2025 Conference aims to stimulate the interest of scientific community, competent authorities of public and private sector including local authorities, businesses, financial institutions, policy makers and society and present the latest developments and achievements in the field of solid waste management with special emphasis on municipal solid waste. Waste prevention, source separation, recycling and production of secondary materials, biological Treatment (aerobic & anaerobic), the treatment at central facilities constitute priority subjects of the conference agenda. Attention is drawn to bioprocesses, biorefineries in waste management to close the loops, circular economy and bioeconomy and of course WASTEtoENERGY with the contribution of the Waste-to-Energy Research and Technology Council, that is a co-organiser of this conference, with the active involvement of Prof. Qunxing Huang, President of the Global WtERT Council. Emphasis is placed on circular economy in all key action areas (production, consumption, waste management, secondary raw materials, innovation, investment & monitoring) and all priority sectors (food waste, plastics, biomass and bio-based-products, construction & demolition waste, critical raw materials, textiles, etc.).

The Conference will provide an opportunity to bring together scientists & professionals from government departments, industries, Municipalities, private institutions, research & education institutions, being a forum for the exchange of the most recent ideas, techniques & experiences in a broad area of waste management. A special Session will focus on solid waste management and the role of Local Authorities & Municipalities for taking advantage of both recyclable materials and biowaste minimize residues for landfilling. The Conference agenda is rich and dense, offering a considerable variety of topics presented through more than 500 presentations within the twenty-six different oral sessions and an extensive poster session with more than 180 posters.

In addition, it is our intention to enlarge the conference benefits by including parallel sessions and events of ongoing projects within the conference agenda. The agenda includes this year the long session of the **LIFE-IP CYzero WASTE**: Intelligent monitoring and efficient waste reduction in Cyprus Island: Integrated waste management and circular economy in urban & rural areas (LIFE20

IPE/CY/000011)" Friday morning (Session XVIII), while the final international event of the **LIFE CO₂toCH₄**: Demonstration of a mobile unit for hybrid energy storage based on CO₂ capture and renewable energy sources (**LIFE20 CCM/GR/001642**) (<https://co2toch4.eu>), has been scheduled Wednesday afternoon (Session V, Part A).

The CYPRUS 2025 conference agenda also includes additional sessions of EU funded projects, namely the following:

HORIZON WALNUT Project: Promoting a circular model for nutrient recovery from wastewater to produce sustainable bio-based fertilisers (**Session XI, Thursday morning**) (<https://walnutproject.eu>)

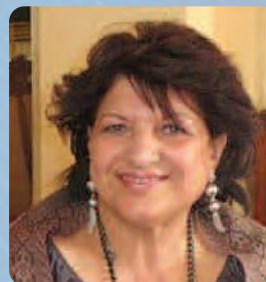
HORIZON EUROPE CRONUS project: Capture and Reuse of biogenic gases for Negative-emission-sustainable biofuels (**Session XVI, Part A, Thursday afternoon**) (<https://cronushorizon.eu>)

Promoting life cycle thinking in higher education, LIFE-C, Erasmus+ project (**Session V, Part B, Thursday afternoon**) (<https://life-c.eu>)

LIFE2M: The Future of Sustainable Micromobility, (Session XVI, Part B, Thursday afternoon)(<https://www.life2m.eu>),

Lastly, the LIFE 2025 Info Day (in Greek) has been scheduled on Thursday 26th June 2025 organized in collaboration with the Green Fund. We would like to thank you all very much for joining us this year. Many of you are repeaters and we certainly appreciate that very much and we will continue our attempts to do our best at all levels in order to enlarge this warm conference family and meet every year. Also, we would like to thank the co-organisers, the **Department of Environment of Cyprus** and the Waste-to-Energy Research & Technology Council, and the sponsors for the support to the conference.

We hope you will find the **CYPRUS 2025 Conference** interesting, useful and up to your expectations. After the hybrid Conference in Corfu in 2022, in Chania 2023 and in Rhodes 2025, we are happy that even more speakers join us this year with physical presence and I welcome you all, either joining us with physical presence or virtually.



Maria Loizidou, Professor NTUA
Chair of the Scientific Committee

12th International Conference on Sustainable Solid Waste Management

SCIENTIFIC COMMITTEE

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12th International Conference on Sustainable Solid Waste Management

Publications in International Scientific Journals

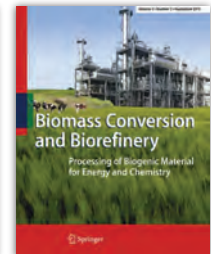
High quality CYPRUS 2025 papers will be published after evaluation in:

Waste Management & Research (SAGE, Impact Factor: 3.7) in collaboration with Prof. Costas Velis, Editor-in-Chief

a Special Issue of **BIOMASS CONVERSION AND BIOREFINERY** (Springer, Impact Factor: 3.5)

a Special Issue of **WASTE AND BIOMASS VALORIZATION** (SPRINGER, Impact Factor: 2.6) in collaboration with Prof. Ange Nzihou, Editor-in-Chief of the Journal

a Special Issue of **ENVIRONMENTAL SCIENCE & POLLUTION RESEARCH** (Springer) with title: "Sustainable waste management in circular cities"



Wednesday, 25 June 2025

All times are in Greek Time

08.00-9.15

Registration

ROOM 1

Welcome Speeches

9.15-9.45

Welcome Speeches

9.45-11.15

Keynote Speakers

Chair: M. Loizidou, K. Moustakas, D. Malamis

Maria Georgiadou, EC Directorate General for Research and Innovation

EU support on SAF technologies and policies

**Evdokia Achilleos, European Research Executive Agency - European Commission EU
Research and Innovation**

New Funding Opportunities for the Circular Economy

Nicolas Abatzoglou, Université de Sherbrooke

*Preliminary engineering of a plastic waste autothermal pyrolysis technology scaled up
two orders of magnitude*

Stephen Smith, Imperial College London

Future Direction, Challenges and Opportunities of Bioresource Recovery

**Kyriakos Maniatis, International Consultant, Ex Principal Administrator in the Directorate
General for Energy of the European Commission**

Waste to SAF value chains

11.15-11.45



Coffee Break

Wednesday, 25 June 2025

ROOM 1
SESSION I

MSW management
Experience of local authorities in waste management
Chair: M. Loizidou

11.45-12.00	M. Grafakos, General Secretary for the Coordination of Waste Management Solid waste management in Greece
12.00-12.15	Th. Mesimeris Solid waste management in Cyprus
12.15-12.30	M. Loizidou Waste management in Cyprus – Central Facilities and their challenges
12.30-12.45	J. Constantinidou LIFE-IP CYzero WASTE: Intelligent monitoring and efficient waste reduction in Cyprus Island
12.45-13.00	M. Geranis Circular Economy: From theory to practice
13.00-13.15	N. Aggelopoulos Waste management in Peloponnese Region
13.15-13.30	E. Tritopoulou PAYT as an economic tool for circular economy - the case of Aradippou Municipality
13.30-13.45	Al. Vecozola, Project Manager LIFE Waste To Resources IP Waste To Resources Latvia - boosting regional sustainability and circularity
13.45-14.00	G. Michalopoulos The Anaerobic Digestion Technology of MESOGEOs: Operation, Performance and Future Outlook
14.00-14.15	A. Charalambous Circular economy in the business sector
14.15-14.30	C. Dias-Ferreira, D. Bugarim, D. Alcalde, T Coelho, C Silva, E. Almeida, M Rosa, V Sousa, J. Vaz, L Cavique, C Nunes, M Jacquinet Municipal biowaste collection strategies in Portugal: Assessing local approaches to EU-driven separate collection requirements

Wednesday, 25 June 2025

14.30-14.45	M. Struk Seasonal variation of paper and plastic collection in the city of Brno – how lockdown influenced the performance?
14.15-15.00	Lunch Break

ROOM 2
SESSION II

PRIMA NEWFEED: Turn food industry by-products into secondary feedstuffs via circular-economy schemes
Chair: Ev. Achilleos, D. San Martin, E. Barampouti, B. Inarra



11.45-12.00	D. San Martin, J. Ibarruri, M. Gutierrez, J. Zufía, B. Iñarra NEWFEED - Turn food industry by-products into secondary feedstuffs via circular-economy schemes
12.00-12.15	J. Ibarruri, D. San Martin, M. Gutierrez, J. Zufía, B. Iñarra Assessment of the use of grape stem from wineries as a second-generation feedstuff to produce a new feed ingredient for ruminants (dairy sheep and cattle)
12.15-12.30	S. Mai, E.M.Barampouti, K. Moustakas, M. A. Karatzia, E. Kasapidou Orange peels as a second-generation feedstuff to produce a new feed ingredient for dairy sheep
12.30-12.45	Hassan. A. F. Rahmy, S. Nour El-Deen, F. M. Abosamra, A. M. Khaled, A. S. M. Korayema Valorization of Olive Cake as a By-product as a Solution for Olive waste and validating the obtained ingredients with Poultry
12.45-13.00	F. B. Dilek, D. San Martin, U. Yetis Comparative Life Cycle Costing and Life Cycle Assessment of Animal Feed Ingredient Production from Grape Stems, Orange Peels, and Olive Cake
13.00-13.15	E. Xaxiri, E. Maravelia, El. Tsapa, A. Gavriil, A. Kapetanakou, V. Papadimitriou, D. San Martin Social assessment of turning food industry by-products into secondary feedstuffs via circular-economy schemes (NEWFEED project)
13.15-13.30	B. Iñarra, J. Ibarruri, M. Gutierrez, J. Zufía, D. San Martin Business Models for the Circular Economy: Valorisation of Food Industry By-products to produce Animal Feed Ingredients

Wednesday, 25 June 2025

13.30-13.45	E. Sigala, K. Abeliotis, K. Lasaridi Underreporting Household Food Waste: Comparing Questionnaires and Diaries in Relation to Socio-Demographic Factors
13.45-14.00	A.P. Djukić-Vuković, J. Grbić, M. Bogdanović, S. Lazović, A. Žugić, V. Tadić, D. Mladenović Biotech and non-thermal treatments to upgrade value of crop and herbal residues
14.00-14.15	A. Agraso Otero, A. Tehseen, R. Rebolledo-Leiva, S. González-García Environmental Assessment of an Integrated Biorefinery for Grape Marc Valorisation
14.15-14.30	A. Arias, G. Álvarez-Rivera, G. Feijoo, M. Teresa Moreira Environmental Evaluation of Antioxidant Extraction from Hops Using Innovative Extraction Techniques and Natural Eutectic Solvents
14.30-14.45	N. Solomakou, D. Fotiou, N. Itskos, I. Roumelioti, A.M. Goula Sustainable Alternatives in Beer Production: Replacement of Barley Malt with Malt from Unused Beans
14.45-15.00	D. Fotiou, N. Solomakou, E. Chrysopoulou, P. Charalampidou, A.M. Goula Utilization of Beetroot By-Products in Pasta Production: A Nutritional and Sustainable Approach

Wednesday, 25 June 2025

ROOM 3
SESSION III

Sustainable Fuels / Hydrogen: solutions & innovations for H₂ production, efficient storage, distribution & applications
Chair: M. Georgiadou, D. Malamis, K. Maniatis

11.45-12.00	V. Rahimi, D. Gómez-Díaz, M.S. Freire, M. Lazzari, J. González-Álvarez CO ₂ separation by adsorption with biomass-based carbon adsorbents activated with ZnCl ₂ and H ₃ PO ₄
12.00-12.15	A. Dimitriadis, N. Turlakidis, G. Meletidis, S. Bezergianni Advanced electrified marine fuel production via hydrotreatment of plastic pyrolysis oil
12.15-12.30	E.A. Nanaki, S. Kiartzis, A. Koutinas, S.M. Ioannidou, D. Ladakis, S. Awad, J. Prudhomme Unlocking the Potential of Microalgae SAF Production: An industry approach
12.30-12.45	L.P. Chrysikou, S. Bezergianni Marine fuels via plastic waste valorisation: a path to sustainability
12.45-13.00	F. Ferjani, I. Esmâ Achouri Deactivation and Valorization of an inflammable mining residues into a highly efficient catalyst
13.00-13.15	H. Abdalla, M. Sartaj, M. Abdallah, N. Abdehagh Assessment and Optimization of In-situ Hydrogen Biomethanation to Enhance Anaerobic Digestion Process
13.15-13.30	A. Marchetti, M. Villano, M. Zeppilli Sustainable Hydrogen Production in a Two-Chamber MEC: Effect of Synthetic and Real Substrate Feeding on System Performance
13.30-13.45	A. Maragkaki, P. Liapis, I. Sabathianakis, E. Kyzakis, N. C. Stratigakis, A. Kaliakatsos, I. Gounaki, D. Venieri, K. Velonia, T. Manios Biohydrogen Production from Dark Fermentation of olive mill wastewater with a thermal dried mixture of food waste and cheese whey: Effect of HRT and pH
13.45-14.00	A. Marchetti, M. Villano, M. Zeppilli Characterization of Microbial Electrolysis Cell's Bioanode Performances through Potentiostatic and Potentiodynamic Techniques
14.00-14.15	L. Taboada-Ruiz, E. Ciurcina, R. Pardo, J. Holgado, P. Álvarez Rodríguez, M. Díaz-Somoano, B. Ruiz Maximising bio-oil yield from industrial dairy sludge: a paradigm on pyrolysis temperature and heating rate in the context of the EU FLEXBY project

Wednesday, 25 June 2025

14.15-14.30	R. Pardo, L. Taboada-Ruiz, E. Ciurcina, J. Holgado, P. Álvarez Rodríguez, M. Díaz-Somoano, B. Ruiz The potential of microalgae biomass from urban wastewater treatment for biofuel production by pyrolysis: flash versus conventional processes in the EU FLEXBY project
14.30-14.45	Arun P Asokan, Somanath Kukade, Pramod Kumar HP-COAT: Technology for Single Step Conversion of Crude to Olefins & Aromatics
14.45-15.00	Sushma Sunkara, Santhoshkumar Reddy S, Srinivasa Rao Ganagalla, Narasimha Rao Kanna, Kanuparth Naga Raja, G. Valavarasu, Sriram S, V K Maheshwari HP-TriJet: Revolutionizing Waste-to-Fuel with a Single-Step SAF & Green Diesel Process

ROOM 4 SESSION IV

WEEE, Construction & Demolition Waste & other waste streams Chair: P. Sospiro, J. L. Hao, A. Piemonti

11.45-12.00	G. Santomasi, A. Fiorente, G. D'Agostino, F. Todaro, M. Notarnicola Life-Cycle Assessment of joint technologies for WEEE-cycle closure
12.00-12.15	C. Magrini, M. Bartoli, F. Drago, F. Verga, C. Fabrizio Pirri, A. Abdel Azim Advancing biohydrometallurgy: metal extraction from mobile phone PCBs using spent microbial effluent
12.15-12.30	M. A.D. Silva, L. Martelo, M.M.S.M. Bastos, H.M.V.M. Soares Towards a Closed-Loop Alchemy — A Vision for the Cyclical Reclamation of Gold from Integrated Circuits
12.30-12.45	E. O. Achukwu, M. S. Saharudin, M. M. Owen, R. Salehiyan, A. A. Janjua, J. Njuguna Wide-range Profiling of WEEE-Derived Polypropylene Using Multi-Technique Analytical Methods
12.45-13.00	L. M. Martelo, M. A. D. Silva, Hugo A. M. Bacelo, M. M. S. M. Bastos, H. M. V. M. Soares Holystic recycling of raw materials from waste liquid crystal displays screens of smartphones
13.00-13.15	V. Rahimi, D. Gómez-Díaz, M.S. Freire, M. Lazzari, J. González-Álvarez Kinetic analysis of selective copper and zinc leaching from printed circuit boards

Wednesday, 25 June 2025

13.15-13.30	A. Borthakur Textile Waste in Emerging Economies: Exploring Circular Economy Characteristics as a Potential Solution with Special Focus on India
13.30-13.45	Sohyun Park, Yongtae Ahn Study on a Reductant-assisted Hydrometallurgical Process for Lithium Recovery from Wastewater in Lithium Carbonate Production
13.45-14.00	A. Piemonti, G. Plizzari, S. Sorlini, C. Gatti LIFE CDW CIRCLE: Value added Recycled Materials from Construction and Demolition Waste
14.00-14.15	S.W. Yu, J.L. Hao, Y. Liu, X. Tang Key Drivers for Integrating Blockchain and Reverse Logistics in Transforming Construction Waste Management towards a Circular Economy
14.15-14.30	V. E. Phinikettou, F. Economou, I. Voukkali, A. A. Zorpas Managing Construction and Demolition Waste in Insular Communities—The Case of Cyprus
14.30-14.45	W. Zhao, J.L. Hao Sustainability performance of construction waste management policies by 2050: A comparative study of China and Australia
14.45-15.00	M. Alint, Z. Zarkada, G. Palantzas, M. C. Samolada Sustainable WEEE management in academic institutions: The case of Aristotle University of Thessaloniki

Wednesday, 25 June 2025

ROOM 1
SESSION V
PART A

LIFE CO₂toCH₄:
Demonstration of a mobile unit for
hybrid energy storage based on CO₂
capture and renewable energy sources
Chair: M. Georgiadou, M. Loizidou,
A. Antoniadis, P. Kougias



15.00-15.15	S. Psaltou Project Overview
15.15-15.30	P. Kougias Operation of the Prototype System
15.30-15.45	L. Treu Process optimization using technically advanced systems and control architectures microbial resource management
15.45-16.00	A. Chatzis Design of the mobile unit for hybrid energy storage
16.00-16.15	H. Partheniou, S. Konstantinidi Test operation and optimization of the mobile unit for hybrid energy storage
16.15-17.30	Discussion with representatives of companies with high CO ₂ emissions (Eva Nanaki, Hellenic Energy, etc)

Wednesday, 25 June 2025

ROOM 1
SESSION V
PART B

**Promoting life cycle thinking in
higher education, LIFE-C, Erasmus+ project**
Chair: S. Sobek, M. Kyriazi, M. Wilk



17.30-17.45	S. Sobek Challenges and coaching conclusion from delivery of the LIFE-C course module Application of life cycle assessment
17.45-17.55	S. Nateghi Life Cycle Assessment of Airborne Infection Control Strategies in Classrooms
17.55-18.05	H. El Hyani Manufacturing of a torque transmission shaft, made with filament winding method and carbon fibers
18.05-18.15	L. Slobodkina Theoretical environmental impact assessment of repowering of a 50 MW windfarm
18.15-18.25	M. Małysiak, B. Wolny, D. Lubojański Comparative LCA analysis of bicycle frames made from different materials
18.25-18.35	O. Cudnik, A. Suchanek Theoretical analysis of Formula 1 tire life cycle
18.35-18.45	Al. Merkoureas – Karras Life Cycle Assessment of Water Treatment Systems: Reverse Osmosis (RO) and RO+LTE

Wednesday, 25 June 2025

ROOM 2
SESSION VI

Tools in the field of waste management
Chair: D. Fino, A. Arias, M.I. Loizides

15.00-15.15	S. Sobek, M. Abdulkareem, K. Grönman, L. Lombardi, M. Kyriazi, G. Arcese, C. Elmo, A. Woszczek, M. Khan, K. Moustakas, M. Horttanainen LIFE-C - Educating non-environmental engineers on life cycle thinking and tools
15.15-15.30	R.L. Aguiar, C. Dias-Ferreira AI-Driven Production Optimization: Enhancing Industrial Efficiency, Sustainability and Recycling through Automated Decision Systems
15.30-15.45	S. Ozgen, L. Saguatti, A. Wu, F. Ruiz Application of Data-Driven Techniques for Continuous Emission Monitoring in WtE
15.45-16.00	A. Arias, M. Cineli, G. Feijoo, M. T. Moreira, S. Cucurachi New composite indicator reporting the Safe-and-Sustainable-by-Design and circularity profiles for bio-based systems
16.00-16.15	X.I. Loizidou, M.I. Loizides, D.L. Orthodoxou, D. Petsa Towards green shipping: A decision-support method for (plastic) waste minimisation
16.15-16.30	H. Jalalaipour, H.A. Abu-Qdais, A. Nassour Environmental and Economic Assessment of GHG Emissions Mitigation through Improved Waste Management in Jordan
16.30-16.45	A. Alahmary Assessing the Economic Viability and Sustainability of Municipal Solid Waste Management Strategies in Riyadh, Saudi Arabia
16.45-17.00	B. Karolinczak, J. Walczak, M. Żubrowska-Sudoł Life Cycle Assessment of energy production from sewage sludge and green waste
17.00-17.15	A. Amat-Bernabeu, S. Morales-Titos, AB. Muñoz-Milán, E. Orgilés-Calpena Towards a Predictive Durability Index for Footwear Through Advanced Modelling in Life Cycle Assessment

Wednesday, 25 June 2025

17.15-17.30	Dhruv Singh, P. Sirini, L. Lombardi Comparative Life Cycle Assessment of Steam Methane Reforming and Dry Methane Reforming from Landfill Gas for Green Hydrogen Production
17.30-17.45	L. Melas, St. Skoutida, M. Batsioulas, A. Malamakis, Th. Patsakidou, G. Baniyas From Waste to Value: Life Cycle Assessment of Polyphenol Extraction from Second-Grade Fruits
17.45-18.00	B. Khoshnevisan, S. Khademi, M. Birkved Global Assessment of Waste Nitrogen Recycling for Microbial Protein Production: A Prospective LCA and Integrated Assessment Model Approach
18.00-18.15	A. Peppas, C. Politi, V. Benedetti, F. Patuzzi, M. Baratieri, K. Baldoukas Wood Waste Management in Europe and the Łódzkie Region: LCA, LCC and S-LCA analysis
18.15-18.30	H. Monteiro, D. Silva, M. Azevedo, J. Silva, C. Carreira, P. Almeida, M. Almeida Life Cycle Assessment of Novel Ceramic Pastes Incorporating Secondary Raw Materials
18.30-18.45	S. Pennellini, S. Zanni, A. Fiorucci, A. Bonoli Sustainable water filtration: Life Cycle Assessment of recycled Polysulfone membranes within a Circular Economy framework
18.45-19.00	M. Tsangas, A. Zorpas, I. Voukkali, M. Stylianou LCA for the hospitality sector, applications and challenges
19.00-19.15	Theertha Dhanesh, Padmanaban Velayudhaperumal Chellam Life cycle assessment of production of Polyhydroxyalkanoates using agro-industrial waste as a carbon source

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Climate change mitigation and adaptation through Nature-Based Solutions
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15.00-15.15	A. Malamakis, C. Karkanias, K. Devlioti, M. Batsioulas, T. Patsakidou, G. Banias Reflexive Monitoring and Impact Assessment of Nature-Based Solutions: Advancing Climate Adaptation and Stakeholder Engagement through Living Labs
15.15-15.30	S. Malamis The CARDIMED project
15.30-15.45	M. Loizidou Brine management using innovative technologies for zero liquid discharge
15.45-16.00	A. Al khatib, K. El Kadi, A. Nemmour, I. Janajreh Multistage Freeze Desalination Process for High-Purity Water Production and Optimized Energy Consumption
16.00-16.15	Th. Patsakidou, A. Malamakis, K. Devlioti, C. Karkanias, G. Banias Living Labs as a tool for urban coastal resilience: The case of eNaBIS-ACT
16.15-16.30	M. A. Vasiliades, A. G. Tsiampartas, M. C. Christodoulou, M. Stylianou, A. Agapiou, A. M. Efstathiou Investigating the adsorption of greenhouse gases on biomass biochar using transient kinetics and temperature-programmed techniques
16.30-16.45	M. Romenska EPR contribution for CO ₂ eq savings updated with Eurostat data 2022
16.45-17.00	I. Petrovic New international master study program in the field of environmental geotechnics and geohazards
17.00-17.15	P. J. Inocencio-García, D. D. Otero Meza, J. G. Salcedo Mendoza, C. A. Cardona Alzate Life cycle assessment modifications for understanding the effect of carbon dioxide transformations into high value-added products
17.15-17.30	O. Kosík, T. Macsek, Tatána Halšová, P. Hlavínek Addressing recalcitrant pharmaceuticals at the WWTP effluent using nature-based solutions

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17.30-17.45	M. Popova, S. Simeonov, I. Slavchev, Y. Mitrev, P. Shestakova, S. Grozdanova, I. Trendaflova CO ₂ capture on cyclic amino-modified mesoporous silica obtained from biomass wastes
17.45-18.00	F. Corona, F. Verdugo, F. Burgoa, D. Hidalgo Best available techniques to recover or recycle fertilizing products from secondary raw materials
18.00-18.15	Y.F. Ma, P.J. He, F. Lü, H. Zhang Improved accounting of carbon emissions from waste incineration confirmed by 14C test of flue gas
18.15-18.30	So-Yee Park, Jai-Young Lee The Role of Carbon Removal and Certification Standards for Biochar in Climate Change Mitigation
18.30-18.45	Chan-Mi Choi, Young-Soo Han Investigation of Volatilization and Chemical Speciation Transformation of Arsenic in Paddy Soil under Temperature Conditions
18.45-19.00	A. Bisak, Z. Zakrzewski, A. Włodarska-Jurkowska Evaluation of the efficiency of removing residual pollutants from treated wastewater – third stage of wastewater treatment
19.00-19.15	N. Ahmed, M. Khaled, S. Elagroudy Technical and Financial Evaluation of Composting Versus Biodrying Treatment Facilities in Egypt
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Waste Valorisation I

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15.00-15.15	K. Devlioti, A. Malamakis, Z. Kazlari, I. Kalfas, G. Baniias Unlocking the Potential of Agricultural Residual Biomass: A methodological framework for the effective use of UAVs
15.15-15.30	B. Ziantoni, F. Demichelis, P. Premchand, C. Galletti, D. Fino, G. Saracco, F. A. Deorsola Conversion of corncob into high-performance biochar: pyrolysis conditions, activation methods, and adsorption capabilities
15.30-15.45	G. Dall'Osto, D. Mombelli, S. Scolari, C. Mapelli Modeling of the biogenic carbon composite agglomerates degree of reduction for effective biochar valorization and utilization
15.45-16.00	M. Legan, A. Žgajnar Gotvajn Mechanical and toxicological aspect of carpentry wood waste biochar in concrete as partial cement replacement
16.00-16.15	A. Magdziarz, A. Mlonka-Mędrala, I. Kalembe-Rec, W. Jerzak Investigation of biochar properties – comprehensive review of instrumental techniques
16.15-16.30	M.A.M. Costa, G. Albini, L.F. Oliveira, A.J.D. Souza, M.O. Bérqamo, L.V. Moreno, K.J. Dussan CO ₂ removal by applying the adsorption process to biochar from waste materials
16.30-16.45	M. C. Christodoulou, A. G. Tsiampartas, M. A. Vasiliades, A. Agapiou, M. Stylianou Sustainable odorous VOC mitigation in livestock waste using biomass biochar
16.45-17.00	H. Khan, I. Janajreh Thermochemical Conversion of Palm Woody Biomass: Ways to Reduce the Tar
17.00-17.15	O. R Dada, M. F Yemba, B. D Ikotun Investigation of synergistic potential of Fly Ash and Foundry Sand Waste in Sustainable Concrete Production for African Infrastructure
17.15-17.30	L. Cesoniene, D. Sileikiene, R. Simanaviciute Degradation intensity of disposable face masks in water of different salinity

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17.30-17.45	J. Alexandre Bogas, R. Cruz, J. Rodrigues, A. Balboa Towards fully-recycled high sustainable compressed stabilised earth blocks
17.45-18.00	S. Khamkure, A. Reyes-Rosas, C. Treesatayapun, L. Díaz-Jiménez, L. Samaniego-Moreno, J.A. Gil-Marin Pecan Shell-Based Magnetic Biochar for Arsenic Remediation: Performance Optimization using a Fuzzy Decision Network and Response surface methodology
18.00-18.15	I. Orlandella, K. N. Smith, E. Belcore, N. Dilillo, R. Ferrero, M. Pugliese, M. Piras, S. Fiore Effect of biochar type and dose in cultivation tests at lab and pilot scale
18.15-18.30	M. Khaled, M. Abdallah, R. Tarek, N. Ahmed, S. Elagroudy Quantifying Specific Emission Factors from Organic Waste Management
18.30-18.45	L. V. Moreno, M. O. Bérgamo, S. A. Grünwald, K. J. Dussán Adsorption of phenolic compounds in sugarcane bagasse hydrolysates using spent coffee ground biochar
18.45-19.00	K. Sajid, M. H. Javed, A. Ahmad, Ala'a H. Al-Muhtaseb, M. Rehan, M. Ilyas Khan, F. Musharavati, M. Waqas Anjum, M. Naqvi, M. Ali, M. Rizwan Tabassum, A. S. Nizami Advancing Sustainable Bioethanol Production from Organic Waste by Integrating Life Cycle Modeling

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| 03 J. A. Conesa, S. S. Núñez, A. Fullana, Núria Ortuño, J. Moltó
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| 07 N. Gkolfinopoulou, S. Spanoudakis
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| 17 I. Platanos, A.S. Dounavis
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| <p>37 A. Ochogavias, M. Cid-Fernández, A. Paz, J. Manuel Domínguez
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| <p>55 N. Lekše, M. Zupančič, T. Griessler Bulc, A. Žgajnar Gotvaj
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| <p>69 M.-M. Narra, M. Haseler, S. Narra
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| <p>79 L. Menacho Rodriguez, L. Pérez Villarejo, J. Solís Veliz, D. Eliche Quesada
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| <p>95 L. di Bitonto, A. Li, C. Pastore
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Synthesis of mesoporous silicas with biomass derived carboxylic acids as templates: mechanism of formation and templates reuse</p> |
| <p>97 S. Vicianá, D. Franco, A. Franco-Uría, J.A. Vázquez, J. Sineiro
Harnessing of fishing fatty discards to obtain structured oleogels with chitosan and vanillin</p> | <p>98 P. Lombardi, S. Barbero, S. Fiore, I. Orlandella, F. Rovera, E. Todella
Multidimensional sustainability assessment of circular orange peel waste management</p> |

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| 99 I. Kosma, L. P. Chrysikou, S. Bezergianni
Evaluating the stability of marine fuels: a storage-based approach | 100 L.P. Chrysikou, S. Bezergianni
A microalgae-biorefinery pathway towards advanced biofuels |
| 101 A. Riveros-Bermúdez, J. A. Vazquez, A. Franco-Uría, L.T. Antelo
Viability assessment of an integrated valorization strategy for fish waste | 102 Tran T. Ho, E. Solomina, H.-M. Heinla, M. Kulp
De-ashing Kraft lignin |
| 103 N. Saca
Reactivation of old cement by thermal treatment to substitute Portland cement in mortars | 104 L. Radu, A. Neagu
Study on the potential use of polyester textile waste on the properties of concrete |
| 105 A. Karagianni, A. Zourou, A. M. Tavlaridi, E. Alexandratou, K.V. Kordatos
Harnessing Reactive Oxygen Species Generation of Carbon Dots for Photo-induced Processes | 106 J. Žaltauskaitė, G. Šidlauskaitė
Swards of different botanical composition: the impact of an additional fertilization under drought conditions |
| 107 G. Giannadaki, A. Zourou, A. Karagianni, A. M. Tavlaridi, P. P. Falara, M. Antoniadou, K.V. Kordatos
Synthesis & Characterization of Graphene Oxide-ZnO For Photocatalytic Hydrogen Evolution | 108 J. Žaltauskaitė, A. Dikšaitytė, G. Sujetovienė, M. Aikas, R. Uscila, J. Eimontas, D. Gimžauskaitė
Remediation of diesel-contaminated soil by means of thermal desorption: effect on soil ecological properties |
| 109 O. Semenova, E. Usiatinsky, Z.A. Dargie, E.-O. Sharoni, F. Nakonechny, L. Yadgarov, M. Nisnevitch
Brown grease as a potential source of raw materials for biodiesel production | 110 L.M. Stefan, A-M. Seciu-Grama, L-A. Bocancia-Mateescu, A-C. Mirica, D. Stan, O. Craciunescu
Biological properties of hybrid hydrogels enriched with algal polysaccharide ulvan as promising wound dressings |
| 111 E. A. Espinosa, A. H. Espinosa, I. R. Cabeza, J. R. Gracia, N. S. Moreno
Selection of Mixed Microbial Cultures to Produce Polyhydroxyalkanoate Polymers from Wastewater Effluents | 112 C. Lopes, L.T. Antelo, J.A. Vázquez
Valorisation of marine biomass for the production of functionalised food products – sustainability assessment |
| 113 M. T. Santos, T. Trindade
Home and community composting in Portugal | 114 S. Bravo-Argote, J. C. Solarte-Toro, C. A. Cardona Alzate
Analysis of small scale biorefineries for cocoa residues valorization |
| 115 M.J. Lozano, K.J. Salgado, C.A. Arroyo, J.E. Hernández-Ruydiaz, J.G. Salcedo-Mendoza, D.D. Otero Meza, C.A. Cardona Alzate, E.P. Mendoza
Prefeasibility analysis of horticultural and fruit waste valorization through anaerobic digestion to obtain biomethane and biofertilizer | 116 M.C. Valerin, L. Francescato, F. Illuminati, M. de Hooge, M. C. Lavagnolo, L. Treu, S. Campanaro
Development and characterization of a microbial inoculum for the valorization of hardly degradable by-products through the production of biohydrogen and biomethane |
| 117 D. Liakos, A. Dimitriadis, L. P. Chrysikou, N. Tourlakidis, S. Bezergianni
Exploring hydrothermal liquefaction of microalgae for sustainable biocrude | 118 E. Gagliano, S. Spotorno, G. D'Agostino, A. A. Casazza, P. Perego, M. Gallo, A. Del Borghi
LCA study on innovative extraction technique for recovering added-value products from olive pomace waste |

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| <p>119 G. Mitropoulou, I. Prapa, A. Nikolaou, Y. Kourkoutas
Resident Microbial Dynamics During Natural Digestion of Olive Mill Waste</p> | <p>120 F. Trucco, M. Pugliese
Effects of bio-based fertilizers recovered from biowastes on lettuce development and health in pot experiments and field trials</p> |
| <p>121 L. Alfarano, S. Bellezza Oddon, L. Gasco, M. Pugliese
Valorization of insect frass as a tool for improving tomato plants development and health</p> | <p>122 M. Stylianou, I. Voukkali, A. Zorpas
Bio-waste exploitation towards agroecological transitions – the ecoFABULAnds project</p> |
| <p>123 A. Tsiampartas, E. Kyriakou, M. Christodoulou, M. A. Vasiliades, A. Zorpas, A. Agapiou, M. Stylianou
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Optimizing soil amendment application in agroecosystems using GIS analysis - Review</p> |
| <p>125 L. Cutroneo, L. Gaggero, T. Rossi, S. Vercelli, M. Di Carro, E. Magi, M. Capello
Benchmarks of asbestos fibres in marine sediments in the Port of Genoa (Italy)</p> | <p>126 G. Liberati, S. Pennellini, A. Bonoli, S. Gabriele, V. Lorenzi, M. Roccaro, A. Peli, S. Gallese, F. Mattacchione, F. Fusi, L. Bertocchi
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| <p>127 T. Ramos da Silva, H. Monteiro, M. Camerin, S. Zinck, M. Roderich, D. Penaranda
Circularity Framework for Assessment of Novel Steel Waste Valorisation Technologies</p> | <p>128 J. Grbić, D. Mladenović, M. Bogdanović, P. Kannappan Karthikeyan, T. Radu, S. Lazović, A. Djukić-Vuković
Low-energy alkaline hydrogen peroxide pretreatment for high-value application of corn stalk</p> |
| <p>129 C. Marzo-Gago, J. M. Romero-García, E. Castro
Comparative analysis of pretreatment techniques for enzyme production from olive tree pruning biomass through solid-state fermentation</p> | <p>130 P. Zakrzewska, B. Zygmunt-Kowalska, D. Głowacz-Czerwonka, M. Kuźnia, T. Telejko
Wastewater fat as a valuable by-product in bio-polyol production</p> |
| <p>131 V. López-Grimau, G. Benveniste, M. Artés, D. Cuesta-Mota, B. Amante
Life Cycle Assessment to promote circularity in the cotton fabric dyeing process</p> | <p>131 A. Muñoz-Castillo, S. Bueno-Rodríguez, L. Pérez-Villarejo, D. Eliche-Quesada
Valorisation of Industrial Waste Materials as Sodium Silicate Alternatives in Chamotte-based Alkaline Activated Cements</p> |
| <p>132 J. M. Romero-García, J.C. Solarte-Toro, A. Galán-Martín, E. Ruiz-Ramos, I. Romero-Pulido, C.A. Cardona-Alzate, E. Castro-Galiano
Biorefinery from olive leaves. Technical comparison of two proposals</p> | <p>133 M. Bogdanović, D. Mladenović, J. Grbić, A. Detsi, A. Tzani, A.P. Djukić-Vuković
Whole-cell biotransformation of <i>Epilobium parviflorum</i> by-products in natural deep eutectic solvents</p> |
| <p>134 F. Zimbardi, C. Torri
Green retrofitting of a vintage reaction: production of acetone from renewable sources via pyrolysis of acetates</p> | <p>135 H. Monteiro, D. Silva, D. Teixeira, T. Ramos da Silva
Life Cycle Analysis of Nano-Enabled Bio-Based Materials along BIOMAC Value Chain</p> |

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- 136 B. Zygmunt-Kowalska, P. Zakrzewska, M. Kuźnia, D. Głowacz-Czerwonka
Techniques for recycling fly ash-modified rigid polyurethane foam: grinding, polyol recovery and combustion
- 137 S. Jurado-Contreras, C. Estrella-Cruz, J.A. Rodríguez-Liébaná, F.J. Navas-Martos, M. Dolores La Rubia
From waste to worth: Comparing the recycling potential of olive fiber-reinforced polypropylene and conventional polypropylene for a circular economy
- 138 M. Lassinantti Gualtieri, E. Colombini, P. Veronesi, A.F. Gualtieri
Recycling of metal powder waste and thermally vitrified dismantled mineral wool for the synthesis of ceramic body pigments
- 139 E. Muñiz, P. Diaz, L. Taboada-Ruiz, B. Ruiz, M. Díaz-Somoano
Exploring the potential of hemp seed shells as dye removal from waters to a sustainable economy
- 140 R. Pardo-Fernández, L. Taboada-Ruiz, E. Ciurcina, M. Diaz-Somoano, B. Ruiz
Chemical pre-treatment strategies for enhanced biofuel production from grape stalk biomass
- 141 B. Ruiz, R.R. Gil, C. Canals-Batlle, H. Monclús, M. J. Martín, E. Fuente, A. Cabrera-Codony
Upcycling Pyrolyzed Biogenic Waste into High-Performance Adsorbents for H₂S Abatement
- 142 T. Ramos da Silva, H. Monteiro, D. Teixeira, F. Marques
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- 143 S. Fogarasi, F. Imre-Lucaci, M. Fogarasi, A. Imre-Lucaci
Solder mask removal and copper recovery from electronic components free waste printed circuit base boards
- 144 N. Tzortzakis, G. Neofytou, E. Hadjisolomou, M. Koutinas, A. Chrysargyris
Application of municipal biowaste-derived products for the peat cultivation of spearmint
- 145 M.C. García-Rico, I.A. Zurita, B. Mayans, S. López-Rayó, C. García-Delgado, L. Hernández-Apaolaza
Potential of Algae wastes from *Caulerpa prolifera* as Biostimulants for Soil microbial activity and Plant Germination in Sustainable Agriculture
- 146 T. Staněk, M. Nguyen, J. Holub, M. Krejčí Kotlánová, M. Boháč, Z. Krejza
The issue of transforming asbestos-cement waste into a usable product
- 147 St. Skoutida, L. Melas, M. Batsioulá, G. Banias
A holistic approach to the valorization of second-grade fruits: Technoeconomic Assessment and Value Chain Integration
- 148 E. Ciurcina, R. Pardo, L. Taboada-Ruiz, J. Holgado, P. Álvarez Rodríguez, M. Díaz-Somoano, B. Ruiz
Balancing quality and yield of biofuel and biochar in the pyrolysis of industrial macroalgae sludge: future perspectives with a circular economy approach in the EU FLEXBY project
- 149 K. Kalinowska-Wichrowska, M. Franas, A. Masłoń, K. Granatyr, E. Pawluczuk, M. Kosior-Kazberuk, M. Bołtryk
The Influence of Thermal Treatment Temperature on the Physico-Mechanical Properties of Artificial Aggregates Produced from Recycled Concrete Fines and Municipal Waste Incineration Ashes
- 150 E. Moslehi, E. Larsson, G. A. Seisenbaeva, C. Tunsu
Hydrometallurgical recovery of potassium and phosphorus nutrients from bioindustry ashes
- 151 E. Hajisolomou, G. Neofytou, A. Chrysargyris, N. Tzortzakis
Exploring the effects of biochar and/or mycorrhizal inoculation in soilless cultivation of spearmint
- 152 B. Mayans, E. Eymar, C. García-Delgado, S. López-Rayó
Sustainable Agriculture: Impact of Algal Extracts from *Caulerpa prolifera* on Free Amino Acid Content in Lettuce Cultivation
- 153 B. Mayans, E. Eymar, C. García-Delgado, S. Lopez-Rayó
Antifungal Potential of Algal Extracts Against Fruit-Pathogenic Fungi: A Sustainable Approach to Post-Harvest Waste Management

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| <p>154 S. Jurado-Contreras, Á. García-Ruiz, L. M. Morales-Ocaña, P. González-Torres, Francisco J. Navas-Martos, J. A. Rodríguez-Liéban, S. I. Molina, D. Moreno-Sánchez, A. Sanz de León, J. M. López, R. Escobar-Galindo, J. Sutil, M.D. La Rubia
Compatibility Studies in the Valorization of Olive Grove Wastes for Fused Granular Fabrication</p> | <p>155 L. Taboada-Ruiz, E. Ciurcina, P. Diaz, R. Forján, M. Díaz Somoano, J.R. Gallego, B. Ruiz, E. Fuente
Sustainable magnetic activated carbon from industrial food waste for the immobilization of arsenic present in contaminated soils according to the principles of the circular economy</p> |
| <p>156 Chan-Mi Choi, Young-Soo Han
Investigation of Volatilization and Chemical Speciation Transformation of Arsenic in Paddy Soil under Temperature Conditions</p> | <p>157 M. Franus, K. Kalinowska-Wichrowska, A. Masłoń, M. Janek, M. Grzegorzczak-Frańczak
Properties of green concrete manufactured from artificial aggregates</p> |
| <p>158 E. Pawelczyk, I. Frąckiewicz, A. Gil, J. Karczewski, M.E. Maciejewski, T. Dymerski, J. Gębicki
Plastic Waste to Syngas: Recent Catalyst Developments in Pyrolysis–Dry Reforming</p> | <p>159 Jeong-Hyeon Lee, Min-Ye Seo, So-Yee Park, Seung-Taek Lee, Jai-Young Lee
Preventing Illegal Household Waste Dumping through Crime Prevention Through Environmental Design(CPTED) and Analytic Hierarchy Process(AHP) Principles</p> |
| <p>160 Jae Won Jeong, Ilho Bae, Changhyeon Park, Ilwoo Kang, Juhee Shin, Jin Mi Triolo, Seung Gu Shin
Methane production from tuna processing waste sludge under fed-batch operation</p> | <p>161 I. Giannakis, C. Emmanouil, E.E. Golia, S.G. Papadimou, V. Manakou, A. Kungolos
Physicochemical and Ecotoxicological Evaluation of Biosolids for Agricultural Use: A Case Study from Northern Greece</p> |
| <p>162 M. Lassinantti Gualtieri, E. Colombini, C. Leonelli, P. Veronesi
Temperature-induced microstructure evolution of geopolymer-copper slag composites-implications on high-temperature applications</p> | <p>163 A. Chatzis, A. Xirostylidou, A. Antoniadis, C. Roumpos, K. N. Kontogiannopoulos, P.G. Kougias
From CO₂ to CH₄: Pilot-Scale Biomethanation as a Pathway for Carbon Recycling</p> |
| <p>164 S. L. Parra-Angarita, M. Essanoussi, H. Ben Hamed, A. Léonard
Geotextile Filter Bags as a Cost-Effective Dewatering Solution for Agri-Food Wastewater Sludge (Applied case – Wallonia (Belgium))</p> | <p>165 A. Chatzis, K.N. Kontogiannopoulos, N. Dimitrakakis, A. Zouboulis, P.G. Kougias
Artificial Neural Network Modeling of Pressure and Nutrient Effects on Biological Methanation Performance</p> |
| <p>166 C. Nikolaidou, M. Mola, N. Monokrousos, V. Aschonitis, P.G. Kougias
Enhancing Soil Properties Using Biochar-Digestate Blends as Biowaste-Based Soil Amendments</p> | <p>167 Ilwoo Kang, Dae Wook Kim, Jae Won Jeong, Jin Mi Triolo, Seung Gu Shin
Assessment of biochemical methane potential of soy sauce manufacturing by-products</p> |
| <p>168 F. Economou, I. Voukalli, V. Phinikettou, M. Stylianou, A. A. Zorpas
Technologies and their Role in Reducing Pre-Consumption Food Loss</p> | <p>169 A.J. Tóth, Gy. Kasza, M. Süth, A. Bittsánszky
Reducing Food Waste in Schools: A Path Toward Sustainability</p> |

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| <p>170 Arun Kuniyil, Mr. Bhanu Prasad G, Mr. Pramod Kumar, Mr. Sriram S, Mr. V K Maheshwari
Innovative HCNG Technology for Sustainable Energy Transition and Circular Economy</p> | <p>171 Bharati Panigrahy, Renny A Moonjely, B Ramachandra Rao, Vipul Kumar Maheshwari
Electrolyzer Technologies for Green Hydrogen Production with reduced CAPEX and OPEX: In-house Development and Demonstration</p> |
| <p>172 Madan Kumar Kumaravelan, Annaji Rajiv Kumar Tompala
HP HiGAS technology - A first-of-its-kind innovative and process intensification technique revolutionizing in carbon capture</p> | <p>173 Nikesh Samarth, Jyothilakshmi C G, Vinoth Kumar D, Dharun T, Yogesh P. Patil, Bennet Chelliahn
HP-Recpol Revolutionizing Sustainability: Recycling of Plastic Waste</p> |
| <p>174 J. T. Felix-Leyva, R. Antón-Herrero, B. Mayans, C. García-Delgado, S. Lopez-Rayó, M. L. Hernandez-Apaolaza, E. Eymar
Effect on growth of Capsicum annum seedlings of different Biostimulants Derived from Caulerpa prolifera and Frass of Tenebrio molitor</p> | <p>175 Xuguang Ma, Yang Li, Tao Zhao, Zhixin Lan, Boming Cao, Xufeng Yuan, Zongjun Cui, Tao Jiang
Comparisons of performance and microbial communities in continuous solid-state anaerobic digesters for lignocellulosic biomass treatment at different total solids and organic loading rates</p> |
| <p>176 G. C. Kortas, M. Stylianou, I. Voukkali, A. A. Zorpas
Evaluating AI-Driven Environmental Impact Assessments: Accuracy and Effectiveness of a Custom Chatbot-Assisted Approach</p> | <p>177 M. Hassan Javed, A.-S. Nizami, A. Ahmad
Advancing Circular Economy: Environmental and Economic Analysis of Plastic Waste Gasification</p> |
| <p>178 Sejin Hwang, Yong Jun Choi, Bo Sung Kang, Young-Kwon Park
Application of Ball-Mill Reactor for the Pyrolysis of Acrylic Resin Waste</p> | <p>179 P. Karachaliou, I. Vyrides
CO₂ Injection into Wastewater/Waste: A Dual Strategy for pH Control and Enhanced Methane Production During Anaerobic Digestion</p> |
| <p>180 E. Peleka, E. Kokkinos, M. Giannakoudi, A. Zouboulis
Acid Mine Drainage neutralization using thermally treated chromite mining waste</p> | <p>181 C. N. Aguilar
Microbial bioprocessing for the coffee pulp valorization</p> |
| <p>182 S. Christou, G. Neofytou, M. Oikonomou, A. Chrysargyris, P. Xylia, A. Gregori, N. Tzortzakís
Spent mushroom substrates as a growing media constituent for germination and growth of <i>Raphanus sativus</i> L</p> | <p>183 P. Amaechi Ako (formally Ozor), J. Chidiebere Ani
Measured Replacement of Portland cement with Processed Solid Cow-Bone Ash and Stone Dust for Manufacture of Hollow Concrete Blocks in Nigeria</p> |
| <p>184 R. Kalpokaitė-Dičkuvienė, V. Snapkauskienė, V. Makarevičius
Characterization of energy production wastes and their potential applications</p> | <p>185 J. Walczak, A.G. Chmielewski, M. Zubrowska-Sudol
Release of Organic Compounds from Sewage Sludge During Hydrodynamic Disintegration: Pilot Prototype System Verification</p> |
| <p>186 F. Battista, S. Alfano, G. Salvatori, M. Villano, F. Valentino, P. Pavan, D. Bolzonella
An Italian biorefinery platform for the conversion of food waste into sustainable biobased products: the BIOREFINE project</p> | <p>187 I. Pitterou, A. Ntirogianni, A. Tzani, K. Tsiantas, A. Batrinou, P. Zoumpoulakis, A. Detsi
Optimization of Bioactive Chitosan-Based Hydrogels Using Natural Deep Eutectic Solvents (NADES) as Dissolution and Crosslinking Agents</p> |

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| <p>188 K. Safari, I. Pitterou, P. Smyrli, A. Tzani, A. Detsi
Harnessing Waste for Value: Green Preparation of Spent Coffee
Grounds-Extract-Loaded Alginate Nanoparticles</p> | <p>189 N. Papafillippou, E.M. Barampouti, S. Mai, K. Moustakas
Comparative Physicochemical Characterisation of Olive Mill Pomace
in Greece</p> |
| <p>190 E. Sigala, K. Abeliotis, K. Lasaridi
Everyday Choices, Lasting Impacts: Exploring Daily Habits
Influencing Household Food Waste Generation</p> | <p>191 I. Vourdelis, V. Karamplia, E.M. Barampouti, S. Mai, D. Malamis,
K. Moustakas
Exploring Green Solvents for the Recovery of Oils from
Organic Waste Streams</p> |
| <p>192 U. C. Ogbuefi, C. P. Ohanu, S. C. Madu
Energy for sustainable development for a better future: Building
resilience innovation to promoting sustainability in industry</p> | <p>193 P.F. Chatzimaliakas, S. Mai, D. Malamis, E. M. Barampouti
Energy Recovery from Algal Biomass: Evaluating Sequential Bioethanol
and Biomethane Production Pathways</p> |
| <p>194 K. Vryonides, A.A. Zorpas
Hazardous Waste to Energy Recovery in the Defence Sector</p> | <p>195 C. C. Y. Ling, S. F. Y. Li
Synergistic effects in co-pyrolysis of sewage sludge and
polyethylene terephthalate</p> |
| <p>196 F. M. Abosamra, M. Gouda Youmna, A. M. Khaled, H.A.F. Rahmy
From Waste to Wealth: Leveraging Agricultural and Livestock
Residues for Climate Action and Sustainability</p> | <p>197 D. Flegkas, N. Pagonis, C. Tsanaktsidis, V. Karayannis
Valorization of bio-based waste as secondary resources in the
development of sustainable biomaterials</p> |

Thursday, 26 June 2025

All times are in Greek Time

08.00-9.30

Registration

ROOM 1

9.15-10.45

Keynote Speakers

Chair: K. Moustakas, D. Malamis

Qunxing Huang, President of WtERT® – Global Waste-to-Energy Research and Technology Council

AI-Powered Waste-to-Energy: A new Era of Intelligent Thermal Combustion Technologies

Paschalis Alexandridis, University at Buffalo, The State University of New York (SUNY)

Unlocking Value from Plastic Waste with Advanced Sorting and Molecular Recycling

Lucile Sever, European Biogas Association

Biogases systems as circular economy hubs: EU market and policy challenges

Steffen Walk, European Compost Network

Evaluating municipal biowaste management: The importance of data on key performance indicators and their influencing factors

Costas Velis, Imperial College London

Plastic pollution global challenge: linking waste sources, emissions, environmental fate and human exposure

Nick Voulvoulis, Imperial College London

The sustainable circular economy as a destination for system transformation and policy development for green growth

10.45 - 11.15



Coffee Break

Thursday, 26 June 2025

ROOM 1
SESSION IX

Anaerobic Digestion I
Chair: S. Smith, S. Campanaro, I. Vyrides

11.15-11.30	G. Ghiotto, G. Zampieri, E. Orellana, A. Chazis, P. G. Kougias, S. Campanaro, L. Treu Microbial and phage dynamics associated with gas retention time and mechanical failure in a pilot-scale CO ₂ bimethanation system
11.30-11.45	R. Amiri, P. Postacchini, M. Baratieri The effects of tar on acidogenic glucose fermentation and acetoclastic methanogenesis in syngas bimethanation
11.45-12.00	M. García-Prats, D. González, A. Sánchez Unveiling the relationships between biochar characteristics and its beneficial effects in the anaerobic digestion of the organic fraction of municipal solid waste (OFMSW)
12.00-12.15	J. Colin, A. Sarrion, P. Lorenzo, E. Diaz, A.F. Mohedano, M.A. de la Rubia Improved anaerobic digestion of organic fraction of municipal solid waste pre-treated by thermal hydrolysis
12.15-12.30	Ziting Zhou, S. M. Grimes, S. R. Smith Anaerobic Co-digestion of Fat, Oil and Grease (FOG)/FOG deposits with Sewage sludge
12.30-12.45	I.A. Fotidis, C. Moulogianni, A.A. Lithourgidis, D. Pitsikoglou, S. Douklias, M-A. Tsitsimpikou, T.A. Kotsopoulos, T. Bournaris LCA and market analysis of a novel bioaugmentation strategy for co-digesting lignocellulosic- and ammonia-rich biomasses
12.45-13.00	M. I. Loizides, X. I. Loizidou, O. Papakyriakou, D. Petsa, C. Fessa, M.-C. Constantinou, D. L. Orthodoxou Safeguarding Halloumi: Reducing Carbon Footprint and Enhancing Anaerobic Digestion Viability through Digestate Co-Composting with green waste
13.00-13.15	Fei Long, Meicai Xu, Wei Liao, Hong Liu Machine Learning for Predicting and Optimizing the Performance of an Anaerobic Digester with Diverse Feedstocks and Operating Conditions
13.15-13.30	R. E. Haro-Torralba, Si. González-Martínez, G. D. Jojoa-Unigarro Biogas production from wastes from Opuntia ficus indica at different temperatures

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13.30-13.45	C. Torri, F. Zimbardi, A. Facchin, V. Spadavecchia, T. Aktas, A. Girolamo Rombolà Preliminary investigation on Pyrolysis-Anaerobic Digestion Integration for the safe Exploitation of Digestate
13.45-14.00	L. Vergine, F. Todaro, O. Giustolisi, M. Notarnicola Digitalization of sewage sludge treatment plants: the case study of Acquedotto Pugliese SpA (Apulia, Italy)
14.00-14.15	S. Colantoni, D. Molognoni, M. Marin, F. Liendo, M. Mansouri, S. Aamodt, E. Borràs From Waste to Energy in the Fish Processing Industry: integration of pilot-scale Bioelectrochemically improved Anaerobic Digestion
14.15-14.30	A. Martis, I. Bassani, E. Mazzocchi, G. Usai, A. Vizzarro, M. Bartoli, N. Vasile, F. Pirri, B. Menin, R. Bellini Dark fermentation potential in increasing circularity of biotechnological wastes
14.30-14.45	D.S. Pitsikoglou, A. A. Lithourgidis, M-A. Tsitsimpikou, C. A. Tzenos, S. Douklias, T. A. Kotsopoulos, I.A. Fotidis Long-term preserved composite methanogenic inocula for bioaugmentation of unwanted biomasses
14.45-15.00	D. Constantinou, A. Kisouri, I. Vyrides Enhancing Anaerobic Digestion of Food Waste: Hyperthermophilic Pretreatment and Zero-Valent Iron addition
14.15-15.00	Lunch Break

Thursday, 26 June 2025

ROOM 2
SESSION X

Circular Economy & Symbiosis
Chair: N. Voulvoulis, A. Zorpas, D. Hidalgo

11.15-11.30	K. Kalkanis, V. Viziryiannakis, C.S. Psomopoulos The role of Industrial Symbiosis in Circular Economy
11.30-11.45	C. Politi, A. Peppas, N.A. Zafeiri, K. Meletis, S. Boutsis Replication strategy assessment related to the 2030 targets for municipal waste and packaging waste in Greece
11.45-12.00	M. Maniadakis, F. Raptopoulos, G. Alexakis, N. Mavrakis prMRF: Automating Decentralized Material Recovery from Municipal Solid Waste
12.00-12.15	Ch. Manousiadis, A. Korba, L. Łękańska-Andrinopoulou, K. Chatziioannou, G. Tsimiklis, A. Amditis Industrial-Urban Symbiosis Matchmaking Framework integrating Regional Scenery to support Hubs4Circularity approaches
12.15-12.30	M. Ciro Liscio, F. Perugini, P. Sospiro Innovations in Waste Management: Mapping the Path Toward a Circular Economy
12.30-12.45	F. Pinzin, S. Al Hosni, R. Vahidzadeh, M. Domini, E. de Marco, T. Beltrani, S. Sbaffoni, L. Cutaia, G. Bertanza, M. Vaccari Towards Technical Standards for circular economy: a comparative analysis and sustainability implications
12.45-13.00	J. Snyman C. Stander, Integrating a Clean Waste Stream Materials Recovery Strategy into a Circular Economy: A Case Study of Gauteng Province
13.00-13.15	S. Ahmed, M. Ciro Liscio, P. Sospiro, I. Voukkali, A. A. Zorpas Insights and Case Study in the fashion industry through Organisational Life Cycle Assessment
13.15-13.30	P. F. Rizzo, D. Cantabella, O. Mauricio Martínez-Ávila, Y. Chourak, J. Pous, A. Álvarez-Ordoñez, M. Oliveira, E. Garcia, I. Laasri, L. Mejias, L. Llenas Shaping the future of soil health: The Spanish Living Lab's role in sustainable agriculture

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13.30-13.45	S. Skoutida, A. Karanasiou, M. Batsioulas, P. Bartocci, A. Hellström, I. Burdallo, S. Patsios, G. Banias Unveiling the flows of key residual streams of the forestry sector towards valorization
13.45-14.00	F. Burgoa Francisco, R. H.E.M. Koppelaar, D. Hidalgo Industrial-Urban Symbiosis: Enabling Circular Hubs for Regional Waste-to-Resource Transformation
14.00-14.15	Á. Ramírez, L. López-Rivilla, M. Muñoz-Morales, E. López-Fernández, J. Llanos Influence of Electrode Surface Properties in the Valorization of Waste Biomass for Sustainable Hydrogen Peroxide Production
14.15-14.30	D. Liakos, S. Vakalis Comparative Assessment of Bio-Oils from Pyrolysis and Hydrothermal Liquefaction: An Application of the BioFairNet Pilot Site 1 Technologies

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ROOM 3
SESSION XI

H2020 WALNUT: Promoting a circular model for nutrient recovery from waste water to produce sustainable bio-based fertilisers

Chair: Ev. Achilleos, F. Corona, M. Loizidou, M. Pugliese



11.15-11.30	F. Corona Introduction of the WALNUT project: objectives, expected results
11.30-11.45	M. Kyriazi Case study 1: Selective magnesium and potassium crystallisation
11.45-12.00	F. Burgoa Case study 2: Hybrid system of photoautotrophic and heterotrophic microalgal cultivation
12.00-12.15	B. Saerens Case study 3: HRAS & adsorption/ion-exchange
12.15-12.30	A. González Case study 4: Ion exchange and membrane contactors for ammonium salts recovery
12.30-12.45	I. Sigurnjak Substitution potential of wastewater derived bio-based fertilizers
12.45-13.00	M. Pugliese, S. Manfrin, F. Trucco Opportunities and challenges of wastewater bio-based fertilizers application on vegetable crops
13.00-13.15	P. Papazoglou-Karachontzitis LCA: summary of the project environmental assessment
13.15-13.30	I. González A White Book for bio-based fertilisers: Policy and practice recommendations to overcome gaps in legislation, market acceptance and research
13.30-13.45	M. Avramidi WALNUT Nutrient Platform
13.45-14.00	F. Rizzioli, N. Frison, D. Bolzonella, A. Morandini, R. Artegiani, F. Battista Scaling Up Nutrient Recovery: The Demonstrative Filtration plant (TRL7) of LIFE DIMITRA project

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14.00-14.15	Y. L. Yaphary, S. Fong Yau Li Synergistic treatment of sewage sludge incineration ash and concrete slurry wastewater for recovery of phosphorus and usable water
14.15-14.30	Xinmin Zhan, Lin Shi, Jizhong Meng, Wenjing Bai Nutrient recovery from digestate using electrodialysis technology
14.30-14.45	A. Ramírez, A. Parodi, F. Martín, M. Muñoz-Morales, J. Llanos Valorization of Sludge Digestate and Biomass Wastes for the Electro-Generation of Hydrogen Peroxide
14.45-15.00	V. Proskynitopoulou, A. Vourros, P. Dimopoulos Toursidis, S. Lorentzou, K.D. Panopoulos Innovative valorization of food processing residues: Sustainable digestate treatment for fertilizers and soil amendments

ROOM 4 SESSION XII

LIFE 2025 Info Day (*in the Greek language*)
Chair: G. Protopapas, D. Banousis, N. Psimmenos



11.15-11.20	Connection - Registrations
11.20-11.25	Greetings Dr. Maria Panagiotou, Minister of Agriculture, Rural Development and Environment of Cyprus
11.25-11.30	Greetings Ioannis Androulakis, President of the Green Fund
11.30-11.40	Trends in the Environmental Field, the European LIFE Programme and the role of the Greek LIFE Task Force plus George Protopapas, LIFE National Contact Point for the Environment, Director of the Green Fund
11.40-11.50	Trends on Climate Change and the European LIFE Programme Chariklia Kloukinioti, LIFE National Contact Point for Climate Change Mitigation and Adaptation, Ministry of Environment and Energy

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11.50-12.00	Trends on the Clean Energy Transition and the European LIFE Programme Stelios Alifantis, LIFE National Contact Point for the Clean Energy Transition, Ministry of Environment and Energy
12.00-12.10	The European LIFE Programme and evaluation of Cypriot participation Aimilia Hatziprocopiou, LIFE National Contact Point for Climate Change Adaptation and Mitigation, Environmental department
12.10-13.10	Presentation of the Nature and Biodiversity subprogramme: Marilena Papastavrou, LIFE National Contact Point for Nature and Biodiversity, Environmental department Presentation of the Circular Economy and Quality of Life subprogramme: Dimitris Banousis, Environmental Expert, Greek LIFE Task Force plus, Green Fund Presentation of the Climate Change Mitigation and Adaptation subprogramme: Nikos Psimmenos, Climate Action Expert, Greek LIFE Task Force plus, Green Fund
13.10-13.40	Presentation of the Clean Energy Transition subprogramme & Tips for writing a successful proposal Stamatis Sivitos, Project Advisor LIFE Climate & Energy Unit, CINEA Vivian Doriza, Project Advisor LIFE Climate & Energy Unit, CINEA
13.40-13.50	Questions and Answers
13.50-14.00	M. Dionysiou Introduction to project LIFE: The case of LIFE-IP CYzero WASTE (LIFE20 IPE/CY/000011)
14.00-14.10	K. Papapostolou Introduction to project LIFE: The case of ENERGATE (LIFE21-CET-MAINSTREAM-ENERGATE)
14.10-14.20	K. Passadis Introduction to project LIFE: The case of CIRCforBIO (LIFE18 CCM/GR/001180)
14.20-14.30	El. Giouni Introduction to project LIFE: The case of LIFE PHARMADETOX (LIFE20ENV/CY/000615)
14.30-14.40	D. Malamis Introduction to project LIFE: The case of LIFE DIMITRA (LIFE22-CCM-EL-DIMITRA/101113253)
14.40-14.50	K. Kounamas Introduction to project LIFE: The case of LIFE IP Physis (LIFE18 IPE/CY/000006)
14.50-15.00	Discussion

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ROOM 1
SESSION XIII

Anaerobic Digestion II
Chair: J. Dosta, P. G. Kougias, S. Vakalis

15.00-15.15	J. Vale Machado Biomethane production: A global technology review for Anaerobic Digestion and landfill biogas upgrading
15.15-15.30	N. Perez-Esteban, J. Vives-Egea, S. Astals, M. Peces, J. Dosta Impact of organic loading rate and microbial migration on acidogenic co-fermentation of waste activated sludge and food waste
15.30-15.45	F. Tanguay-Rioux, F. Matteau Lebrun, F. Ngoundjo, L. Spreutels Improving methane production during anaerobic digestion of the aqueous phase of hydrothermal carbonization: effect of intermediate treatment and choice of inoculum
15.45-16.00	M. Olaya-Rincon, J. Serra-Rada, C. Da Silva, P. Barcelona, J. Dosta, S. Astals, M. Martinez Thermophilic anaerobic biodegradation of commercial polylactic acid products
16.00-16.15	Ilho Bae, Juhee Shin, Seung Gu Shin Enhancing anaerobic digestion efficiency of dried fish waste through C/N ratio adjustment and additive application
16.15-16.30	R. V. Ramírez-Arriola, S. Gonzalez-Martinez, G. D. Jojoa-Unigarro Biogas production from codigestión of corn silage and sheep and goat manure
16.30-16.45	E. Gutiérrez-Domínguez, S. González-Martínez Startup of a semi-continuous anaerobic reactor operated at variable temperature
16.45-17.00	E.N. Bahçecioğlu, F.D. Sanin Fate and Effect of PET Microplastics in Anaerobic Sludge Digestion After Thermal and Pancreatin Enzyme Combined Disintegration
17.00-17.15	Seonmin Kang, Minjae Kim, Joonyeob Lee Anaerobic digestion of catechol wastewater in magnetite powder-added AnSBR system
17.15-17.30	H.L. Lee, B.Y. Kim, H.W. Kim Cold-plasma application for enhancing methanogenesis in the anaerobic digestion of sewage sludge

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17.30-17.45	E.Y. Lee, S. Pov, J.W. Jeon, K.J. Min, K.Y. Park Comparative Evaluation of Digestate Solubilization by Thermal Hydrolysis and Ultrasonication for Anaerobic Digestion
17.45-18.00	M. Andronikou, I. Vyrides A Metal-Assisted Circular System for CO ₂ Utilization and Methane Enhancement in Anaerobic Digestion
18.00-18.15	Al. Chatzis, A. Xirostylidou, K. Kontogiannopoulos, P. Samaras, A. Zouboulis, P. Kougias Overcoming Scale-Up Challenges in Biological Methanation: A 300-Day Pilot TBR Study
18.15-18.30	P. Cunha, M. T. Santos, T. Trindade Improvement of biogas production in anaerobic digestion process through numerical model predictions
18.30-18.45	M. Mzobotshe, P. Mukumba, S. Tangwe Development of a nonlinear response surface model to predict the volume of biogas yield of a fixed dome digester charged with cow manure
18.45-19.00	F. Makamure, P. Mukumba Design, construction and testing of a temperature control system for household biodigester using Arduino technology

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ROOM 2
SESSION XIV

Bioprocesses, Biorefineries in waste management
Chair: C.A. Cardona Alzate, N. Abatzoglou, S. Fiore

15.00-15.15	M. Christou Solid wastes for Sustainable Aviation Fuels value chains
15.15-15.30	I. Gómez-Cruz, J. Labidi, E. Castro, A.J.D Silvestre, A.M. Da Costa Lopes Analysis of different methods of olive tree pruning delignification using deep eutectic solvents
15.30-15.45	C. Kennes, M. C. Veiga Bioprocesses for waste, syngas and carbon dioxide valorisation
15.45-16.00	M. Sbicego, A. Gallipoli, A. Frugis, A. Gianico, M. Lazzazzara, E. Di Censo, F. Angelini, S. Angelini, G. Cecchini, C. M. Braguglia Sustainable anaerobic conversion of mixed sludge and food waste into marketable carboxylic acids and bioenergy towards green urban biorefineries
16.00-16.15	L. Gurreri, M. Calanni Rindina, D. Bonanno, A. Luciano, G. Mancini, D. Fino LCA of a microalgal plant under alternative scenarios: Photovoltaic energy and cultivation in wastewater
16.15-16.30	J. C. Solarte-Toro, C. A. Cardona Alzate Economic and environmental analysis of implementing hybrid renewable energy systems (HRES) for heat and power supply in biorefineries
16.30-16.45	J.A. Vázquez, R. Moreira, D. Franco, A. Franco-Uría, L.T. Antelo Biorefinery approach for the integral valorization of chub mackerel (<i>Scomber japonicus</i>) discarded biomass
16.45-17.00	H. Nagendra, K. N. Raja, G. Valavarasu, S. Sriram Successful demonstration of Indigenous Technology to produce Dearomatized Solvents - HP-DAK
17.00-17.15	M. Ortiz-Sánchez, O. A. Mimalchi-Valenzuela, C. A. Cardona Alzate Sustainability analysis of rural biorefineries to strengthen the cocoa value chain in Colombia
17.15-17.30	Á. Galán-Martín, D. Pérez-Almada, I. Romero-Pulido, C. Marzo-Gago Towards Optimizing Biorefinery Systems with CO ₂ Capture: A Circular Economy Approach for Valorizing Olive Pomace in Spain

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17.30-17.45	M.F. Blanco, A.D. Moreno, J.M. Oliva, C. Álvarez, M.J. Negro, R. Iglesias, I. Ballesteros Enhancing tolerance of <i>Heyndrickxia coagulans</i> through adaptive laboratory evolution for efficient conversion of lignocellulosic municipal forest wastes
17.45-18.00	G. Srinivasa Rao, G. Valavarasu, S. Sriram, V. K. Maheswari Production of TDAE grade environmental friendly rubber process oils from lube extracts through new process scheme
18.00-18.15	J. Hunicz, H. Kuszewski, M.S. Geca, A. Rybak, L. Yang, A. Jaworski, D. Szpica, M. Mikulski Hydrotreated vegetable oil blended with waste plastic pyrolysis oil as a renewable alternative to diesel fuel
18.15-18.30	M. Cottes, P. Simeoni Organic waste treatment: anaerobic digestion role as biorefinery
18.30-18.45	B. Sampaio de Mello, L. Vargas-Estrada, A. Sarti, R. Muñoz The influence of liquid nanoparticles on photosynthetic biogas upgrading, biomass growth and pigments accumulation of <i>Coelastrella thermophila</i>
18.45-19.00	E. Arcos, P. Gerin H_2/CO_2 addition during microbial batch fermentation of orange peel wastes for chain elongation of short chain carboxylates
19.00-19.15	C. A. Guerrero Fajardo, A. S. Lozano Pérez Improved Hydrothermal Conversion of Pea Pod Biomass for Production of Platform Chemicals with Organic Acid Catalysts

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ROOM 3
SESSION XV

Waste Valorization II

Chair: K. Moustakas, A. Karamanov, I. Fotidis, A.F. Mohedano

15.00-15.15	P. Dutournié, M. Zbaïr, G. Guicheney Numerical modelling of Thermochemical heat storage: modelling, model validation and simulations
15.15-15.30	B. Chiguano Tapia, E. Díaz, M.A. De La Rubia, J. Carrasco, A. Barbero-López, A.F. Mohedano Material and energy recovery from mushroom and lavandin stem wastes by hydrothermal carbonization
15.30-15.45	M. Costa-Pastor, AB. Muñoz-Milán, F. Arán-Aís, E. Orgilés-Calpena Recycling process for footwear cross-linked EVA waste using a mechanochemical batch method
15.45-16.00	Z. Sayouri, S. Abdelmoumen, A. Bourafa, M. Belhachemi, A. A. Zorpas, B. Khiari Impact of the Medium as a moisture source in the Hydrothermal carbonization of raw olive pruning
16.00-16.15	A.A. Papa, A. Amado-Fierro, T.A. Centeno, A. Di Carlo, S. Rapagnà Effect of process water recirculation on hydrochar behavior in gasification of hydrothermally treated organic fraction of municipal solid waste
16.15-16.30	V. Stefanelli, A. Kiwan, D. Pirini, D. Collini, C. Samori From waste to biopolymers: sustainable valorization of secondary sludge via hydrothermal carbonization, acidogenic digestion and aerobic fermentation
16.30-16.45	L. Martinez-Sanchez, M. Solana, E. Esteban, M. Reguera, A. F. Mohedano, M. A. de la Rubia, M. Tobajas Characterization and application of hydrochars from Co-hydrothermal carbonization of biowaste and sewage sludge
16.45-17.00	G. Ceragioli, E. Tito, G. Pipitone, S. Bensaid, R. Pirone Valorisation of multi-component plastic waste via hydrothermal liquefaction: A comprehensive analysis of interactions between PET and PA6 depolymerization
17.00-17.15	B. Chiguano-Tapia, A.F. Mohedano, M.A. de la Rubia, E. Díaz Hydrothermal liquefaction of swine manure and food waste: a pathway to sustainable energy and soil improvement
17.15-17.30	E. Garcia-Muchart, L. Mejias, N. Peña, O. Martínez-Avila, S. Ponsá From agro-food waste to biostimulant bacterial exopolysaccharides: solid-state fermentation as a circular bioeconomy tool

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17.30-17.45	L. Castellini, A. Giordana, M. Malandrino, G. Cerrato Synthesis and characterization of hydroxyapatite nanoparticles from eggshell without thermal treatment
17.45-18.00	J. Font-Pomarol, A. Sánchez, A. Artola, E. Molina Peñate, Ó. Prado Valorisation of organic waste through solid-state fermentation for sustainable agriculture: Biostimulant production by <i>Trichoderma harzianum</i>
18.00-18.15	H. Pérez-Aguilar, M. Bonilla-Espadas, E. Orgilés-Calpena Transforming Agriculture and Industry: Unlocking the Potential of Bivalve Mollusk Byproducts for High-Value Innovations
18.15-18.30	L. Taboada, M González-Ingelmo, M. Granda, Z. González, B. Ruiz, U. Sierra, E. D. B. Castro, E. Cuara, P. Álvarez Utilization of a macroalgae-based industrial waste to prepare graphene derivatives suitable in water filtration systems
18.30-18.45	A. Belasri, A. Boukrim, O. Lakbita, A. Bakka, B. Rhouta, M. Lahcini, R. Beniazza, T. El Assimi Nano-structuration and functionalization of cellulose acetate membrane for advanced water purification
18.45-19.00	M.C.M. Santos, H.M. Fogarin, C.V.S. Vechi, D.D.V. Silva, K.J. Dussán Assessment of adapted and non-adapted <i>Rhodospiridium toruloides</i> strain growth in hemicellulosic hydrolysate from spent coffee grounds

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ROOM 4
SESSION XVI
PART A

HORIZON EUROPE CRONUS project:
Capture and Reuse of biogenic gases for
Negative-emission-sustainable biofuels
Chair: M. Georgiadou, D. Malamis,
M. Loizidou



15.00-15.15	D. Malamis General presentation of the HORIZON CRONUS Project
15.15-15.30	S. Mai Functional Prototype 1 in Athens, Greece
15.30-15.45	P. Kougias Functional Prototype 2 in Thessaloniki, Greece
15.45-16.00	A. Grimalt Alemany Functional Prototype 3 in Copenhagen, Denmark
16.00-16.15	J.-M. Commandré Functional Prototype 4 in Montpellier, France
16.15-16.30	D. Hidalgo Functional Prototype 5 in Boecillo, Spain

ROOM 4

SESSION XVI

PART B

LIFE2M:
The Future of Sustainable Micromobility
Chair: P. Sospiro, S. Ahmed, R. Caldarulo



17.00-17.15	D. Vangi Long Life 2 Micromobility project
17.15-17.30	S. Ahmed Comparative assessment of Supercapacitors and batteries
17.30-17.45	M. Laschi Technological innovations and waste reduction
17.45-18.00	P. Sospiro Exploitation and commercialization
18.00-18.15	S. Ahmed Using composite material in micromobility vehicle construction for sustainable waste management
18.15-18.30	R. Caldarulo Innovative Products for Sustainable Micromobility project
18.30-18.45	F.J. Navas New generation of biocomposites based on olive fibers for industrial applications
18.45-19.00	Discussion

ROOM 1
SESSION XVII
Waste-to-Energy, Hydrogen & Energy from Waste
Chair: K. Moustakas, C. Psomopoulos, I. Janajreh, J. Zeaiter

9.00-9.15	Haim Cohen, Yaniv Knop Municipal Waste Incineration and Ash Utilization in Industrial Concrete
9.15-9.30	I. Mensah, S. Narra, J.C. Ahiekpor, N.Y. Asiedu Choosing optimal RDF gasification medium for H ₂ -rich syngas production
9.30-9.45	J. Čespiva, M. Charvát, J. Skřínský, J. Vereš, J. Ryšavý Evaluation of the Suitability of Defined SRF in Mixture with Wood and as a Standalone Fuel for Gasification Processes
9.45-10.00	J.E. Rubiano, I.O. Cabeza, D. Serrano, N.E. Sánchez, R. García From Urban Waste to Energy Through Performance Analysis of Pruning Residue Gasification in a Pilot-Scale plant
10.00-10.15	Yang Liu, Ruming Pan, R. Ansart, G. Debenest Optimizing Biomass Pyrolysis Through Joule Heating with Focus on Reaction Parameters and Product Quality
10.15-10.30	L. Halawy, J. Zeaiter Pyrolysis of Waste Tires over Bi-metallic USY for the Production of Hydrogen
10.30-10.45	E. Fersini, A. Giuliano, F. Todaro, C. Wieth, M. Notarnicola Technical evaluation of sewage sludge pyrolysis: laboratory and pilot plant tests
10.45-11.00	E.D. Arroyo-Dagobeth, D.D. Otero Meza, J.J. Cabello – Eras, R. Gómez-Vásquez, J.G. Salcedo – Mendoza, J.E. Hernández-Ruydiaz, C.A. Cardona Alzate Potential of pyrolytic gas from pelletized residual biomass of rice husk and corncob blends: Analysis of non-condensable gas evolution in a batch reactor
11.00-11.15	D. Sorino, M. Baldelli, L. Bartolucci, S. Cordiner, F. Lombardi, V. Mulone Multicriterial methodology for mixed plastic waste pyrolysis management
11.15-11.30	D. Liakos, L. Chrysikou, I. Kosma, A. Dimitriadis, K. Triantafyllidis, S. Bezergianni HTL of Wheat Straw and Biocrude Refinement for Petroleum Compatibility

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11.30-11.45	E. Emmanouilidou, T. Kikalishvili, A. Lazaridou, S. Mitkidou, A. Agapiou, N. Kokkinos Advanced characterization of biodiesel produced from spent Greek coffee grounds using gas chromatography-tandem mass spectrometry analysis
11.45-12.00	A. Tehseen, S. González-García Assessing the environmental implications of manure waste management and its application in purple hydrogen production
12.00-12.15	P. Kannappan Karthikeyan, J. Grbic, F. Iza, H. Chaminda Hemaka Bandulasena, T. Radu Integrating Fenton Process with Plasma Technology for Enhanced Biogas Production from High-Lignocellulosic Biomass
12.15-12.30	J. Mikusińska, K. Szkadłubowicz, Z. Prus, M. Kuźnia, I. Kalemba-Rec, E. Kudlek, A. Marszałek, M. Dudziak, G. Cema, M. Wilk Hydrothermal carbonization of agriculture digestate: the effect of residence time and temperature on chemical and physical properties of hydrochar and process water
12.30-12.45	M. Wilk, J. Mikusińska, M. Kuźnia, K. Szkadłubowicz, Z. Prus, G. Cema Wet biowaste from agriculture pretreated by enhanced hydrothermal pretreatment into energy fuels
12.45-13.00	D. Urbancl, D. Goricanec, A. Skorjanc, A. Petrovic Sustainable approach to the thermal conversion of solid residues
13.00-13.15	E. Bizzotto, D. Sanguineti, G. Zampieri, I. Angelidaki, L. Treu, S. Campanaro Syngas Biomethanation: metabolic modeling to improve methane production
13.15-13.30	A. Ramos Unlocking sustainable futures: exploring feedstock composition for waste-to-energy solutions
13.30-13.45	R. M. Ali, M. H. ElGreatly, H. A. Farag, M. S. Mansour, Ab. H. Al-Anazi Efficient eco-friendly economic esterification for waste cooking oil
13.45-14.00	Ji-Hye Ahn, Tae-Hoon Kim, Yun-Ju Jeon, Yeo-Myeong Yun Sulfide-Induced Shifts in Biohydrogen Production and Microbial Dynamics during Dark Fermentation
14.00-14.15	Xueli Chen Synergy of plastic-paper co-pyrolysis in MSW: Thermal behavior and product characteristics
14.15-14.30	Longfei Tang Fixed-bed pyrolysis of twigs Interaction mechanisms between bed layers

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14.30-14.45	A. Białowiec, M. Hejna Carbon-relative molar mass for the prediction of RDF torrefaction and calorific value of the carbonized solid fuel
14.15-15.00	Lunch Break

ROOM 2
SESSION XVIII

LIFE-IP CYzero WASTE: Intelligent monitoring and efficient waste reduction in Cyprus Island: Integrated waste management and circular economy in urban & rural areas
Chair: Ev. Achilleos, M. Loizidou, J. Constantinidou, E. Tritopoulou



9.00-9.15	M. Loizidou Compliant Waste Management Units with Circular Economy and Best Available Techniques – The case of OEDA Koshi and Pentakomo in Cyprus
9.15-9.30	M. Loizidou, E. Tritopoulou Organic waste management in Cyprus with Community Composters, and a New Organic Management Plant in Paphos
9.30-9.45	A. Adamou Reuse and Repair Centres in Cyprus and a network of Reuse Shops in synergy with Green Points
9.45-10.00	M. Alabritis Pay as you Throw in the Municipality of Aradippou in Cyprus
10.00-10.15	P. Mountoukos Hazardous Waste Management
10.15-10.30	E. Kazamia Green Kiosks for recyclables in Cyprus, challenges and installation
10.30-10.45	D. Boudouvas EPR in Batteries for use in Vehicles and Industry. The case of Greece

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10.45-11.00	T. Prastitou Merdi Revising the EU Waste Framework Directive in 2025: A stepping stone forward or a wasted opportunity?
11.00-11.15	G. Nohales, M. Stinavage, S. Walk Policy and Regulatory Recommendations for Bio-waste Management in the EU
11.15-11.30	M. Donner, F. Fabiano, V. Amorese, C. Mango, H. de Vries A circular collaborative business model for urban food waste management: the case of Milan
11.30-11.45	G. Hafner, D. Drissner Smart Food BaWue - Food Waste in Private Households
11.45-12.00	M. Kouloumis, V. Savvilotidou, S. Papadopoulos, C. Vatseris The impact of INTERGEO in remediation and waste management and the upcoming innovative services
12.00-12.15	F. Kyrkitsos, A. Dalamaga, K. Lasaridi LIFE IP CEI GREECE: The implementation of PAYT systems in Greece
12.15-12.30	L. Afxentiou, A. Giannis Implementation of a Pay As You Throw system in the municipality of Aglantzia, Cyprus
12.30-12.45	El. Demian Circular economy: opportunities, challenges and impact to the Greek economy
12.45-13.00	R. Titos-Guillen, E. Licon, T. Alvariño, A. Taboada, S. Sentellas, M. Reig LIFE CYCLOPS: Upcycling polyphenols from waste
13.00-13.15	G. Sánchez, J. Carlos Fernández, J. Hereza, R. Muñoz, A. González, M. Gil d, Ó. Prado, R. Montes, M. Macarulla, S. Gassó, R. Lebrero Marketable high-performance compact technologies for the abatement of VOCs in EU waste treatment plants, decreasing CO ₂ emissions and energy consumption- LIFE ABATE (LIFE22-ENV-EN-EN-LIFE-ABATE/101113838)
13.15-13.30	F. Liendo, S. Solaro, M. Antonini, E. Montoneri Production of eco-friendly multipurpose Biobased products from Municipal Bio Waste (MBW) – LIFE EBP project

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13.30-13.45	D. P. B. Fernandes, C. Dias-Ferreira Evaluating the Circularity of Municipal Waste Management in Maputo, Mozambique: A Holistic Approach Using the SGRU-CED Model
13.45-14.00	K. Tsimaras Climate change and water scarcity, the role of regulators
14.00-14.15	Jiasheng Cai, D. Parmentier, S. W.H. Van Hulle Applying a continuous electrooxidation reactor for the removal of bulk organic matter in biologically treated landfill leachate: influence of operational conditions and online surrogate monitoring
14.15-14.30	Ch. Ketikidis, Z. Gaitanarou, Chr. Makri, S. Plakantonaki PreVEnting and ReDucing the tEXtiles waste mountain in the MED area
14.30-14.45	J. Osiadacz, D. Włóka, P. Marcinek, E. Waluś, M. Smol Bringing science and practice in forestry: Transforming residual biomass into market opportunities
14.45-15.00	Z. Nikolaou, T.Furlanetto, G.A. Tsalidis, T. Parissis Life Cycle Analysis (LCC) of Precycling Home Appliances

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ROOM 3
SESSION XIX

Recycling & Resources Recovery

Chair: A.B. Ribeiro, E. Castro, Cl. Di Iaconi, G. Izydorczyk

9.00-9.15	S. Hippmann, H.L. Challa, F. Alipour, S. Pavón, M. Bertau, A. Michaelis Early-stage lithium recovery from EV battery black mass by CO ₂ in pilot scale
9.15-9.30	S. Ahmed, P. Sospiro, M. Ciro Liscio, Michelangelo-Santo Gulino, M. Laschi, D. Vangi Advancing Urban Micromobility: The Role of Supercapacitors in Enhancing Efficiency and Sustainability
9.30-9.45	C. Pires, J. Almeida, H. Ponte, E. P. Mateus, M. K. Lenzi, A. B. Ribeiro Evaluating Energy Consumption in the Electrodialytic Recovery of Lithium from Mineral Sources
9.45-10.00	M. Bruno, A. Zanoletti, E. Bontempi, S. Fiore Economic optimization of pre-treatments and operative conditions for leaching of critical raw materials from lithium-ion batteries black mass
10.00-10.15	L.L. Lassila, M. Bruno, C. Francia, A. Santasalo-Aarnio, S. Fiore Sustainable Pre-treatment Method for Lithium-ion Production Scrap Material Recovery and Re-utilisation
10.15-10.30	A. Vizzarro, C. Magrini, N. Santi Vasile, I. Bassani, R. Bellini, F. Drago, L. Baudino, B. Menin, C. Fabrizio Pirri, F. Verga, A. Abdel Azim Harnessing biomethanation for sustainable lithium depletion from sea water brine and energy generation: an integrated waste management strategy
10.30-10.45	S. Pavón, S. Hippmann, H.L. Challa, C. Rogoll, P. Fröhlich, M. Bertau, A. Michaelis Upcycling of NdFeB permanent magnets for green applications
10.45-11.00	J. Valeri, G. Costa, S. De Assis Bombardelli Miranda, N.M. Gusmerotti, L. Migliore, R. Baciocchi From microfibers to nanodiamonds: Assessment of the added environmental/social and economic benefits of a combined process for upcycling and reusing washing machine wastewater
11.00-11.15	G. Tarousinof, D. Sinioros, C.S. Psomopoulos Materials recovery and recyclability evaluation for the Measuring transformers in Medium Voltage Switchgears (20kV)
11.15-11.30	N.B. Jordanov, E.M.A. Hamzawy, A. Karamanov Effect of the oxidation stage on the foaming performance of Iron-rich sintered glass-ceramics

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11.30-11.45	A. Karamanov, N.B. Jordanov, V. Savic Influence of glass compositions, sintering rate and holding temperature on the sinter-crystallization of vitrified industrial wastes
11.45-12.00	S. Scolari, D. Mombelli, G. Dall'Osto, C. Mapelli Recycled Arabic Gum as Binder for Self-Reducing Briquettes Made by Steelmaking By-Products
12.00-12.15	I. Djobov, R. Andreeva, M. Peshova, A. Karamanov Characterization of main industrial wastes in Bulgaria and possibilities for their utilization
12.15-12.30	X.L. He, Y. Zhou, X.X. Xue, H. Yang Straw-type biomass as a clean reductant in magnetized roasting of Bayan Obo tailings
12.30-12.45	L. S. Fressato, A. Salimbeni, L. Bettucci, G. Lotti Efficient recovery of benzoic acid from the condensed phase of textile residues obtained by slow pyrolysis
12.45-13.00	I. Sammas, E. Mylona, P. Oustadakis, A. Kourtis, K. Tsakalakis, A. Xenidis Development of an integrated processing scheme for the recovery of chromite and platinum group metals (PGMs) from fine chromite tailings
13.00-13.15	A. Tomar, V.K. Tyagi, A.A. Kazmi, A. Rajpal, A.K. Goel Innovative High-Performance Bio-Digester for On-site Blackwater Treatment
13.15-13.30	P. Marcinek, J. Osiadacz, D. Włóka, M. Smol Circular economy business models as sustainable solutions for forestry biomass recovery in the Baltic Sea Region
13.30-13.45	C. Gutiérrez Palacios Recovery of the Landfill of the Municipality of Calakmul, Campeche, Mexico
13.45-14.00	S. E. AbdElhafez, H. A. Hamad, A. H. Al-Anazi, A. Nafady, F. Altawati, R. M. Ali Exploring a sustainable and economical biosorbent for organic pollutants remediation from real textile wastewater

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ROOM 4
SESSION XX

Plastics & Bioplastics / Characterisation of waste residues / Hazardous Waste
Chair: C. Velis, J. Čespiva, S. Mai, J. Ryšavý

9.00-9.15	Yoonhee Ahn, Minjoo Lee, Wonsik Nam, Gayeon Jang, Jeongmin Yun, Eunjoo Choi, Joonhong Park Influence of Gas-phase CO ₂ Control on Lactate and Methane Productions from PLA (Poly Lactic Acid)-Degrading Thermophilic Anaerobic Digestion
9.15-9.30	Donggyu Lee, Woohyeok Jang, Seokhwan Hwang Effect of Inocula from Full-Scale Anaerobic Plants on Thermophilic Bio-gasification of PLA and PBAT
9.30-9.45	B. Lleshi, S. Facchini, M. Occhinegro, M.E. Di Clemente, G. Santomasi, F. Todaro, M. Notarnicola Circular management of beach litter: densimetric separation of natural and anthropic fractions
9.45-10.00	V.E. Messerle, A.B. Ustimenko, O.A. Lavrichshev Using plasma gasification to reduce plastic waste: thermodynamic analysis and experiment
10.00-10.15	Paul Amaechi Ako, Unatshilidzi Benedictus Khangale Technical specifications for value-added production planning and control of plastic recycling in South Africa
10.15-10.30	M.-C. Constantinou, X. I. Loizidou, D. L. Orthodoxou Exploring Marine Litter on Cyprus's Beaches: Microplastic Abundance, Distribution and Seasonal Dynamics
10.30-10.45	Ji Young Park, Jae Hwan Yang Upcycling Waste PET for Efficient Toluene Oxidation Catalyst
10.45-11.00	P.A. Márquez, M.N. Rojas Evaluation of the microbiological decomposition of biodegradable, compostable and water-soluble plastic bags in a seawater inoculum
11.00-11.15	A. Kumar, M. K. Mondal Sustainable and Cost-Effective Recycling of Thermoset Plastics via Cryogenic Grinding for Composite Manufacturing
11.15-11.30	Yan Jin, Xinxin Zhao, Guangqing Liu, Chang Chen Anaerobic degradation of commercially available biodegradable plastics

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11.30-11.45	Xuefeng Wang, Xue Sun, Yan Jin, Chao Song, Chang Chen, Guangqing Liu Biosynthesis of poly(hydroxybutyrate-co-hydroxyvalerate) using the volatile fatty acid produced from food waste
11.45-12.00	D. Mombelli, G. Dall'Osto, S. Scolari, C. Mapelli On the role of Zn/Fe ratio on the mineralogy of Electric Arc Furnace Dust for optimization of Zn recovery
12.00-12.15	M. Dej, L. Kubonová, J. Ryšavý, P. Musil The Ash Fusibility of Waste Biomass from the Agricultural Industry
12.15-12.30	A. R. Zubas, G. Denafas, E. Griškonis, J. Kruopienė Mechanical and Thermal Treatment for Recycling Photovoltaic Modules
12.30-12.45	I. Pachakis, K. Passadis, S. Mai, E. M. Barampouti, D. Malamis Simulation and optimization of potassium carbonate-based carbon dioxide capture for industrial applications
12.45-13.00	J. Negrete, F. García, A. Tejeda, N. R. López, M. R. González, G. Fernández Characterization of Waste Generated from Discarded or End-of-Life Solar Panels Thermal Delamination Process for Possible Valorization
13.00-13.15	N. Ratola, F. Bernardo, F. Sánchez-Soberón, L. Vidal, L. Ripoll, A. Alves, V. Homem Volatile methyl siloxanes in WWTPs: where do they come from?
13.15-13.30	A.F. Gualtieri, R. Arletti, D. Malferrari, A. Viani, R. Fantini, M. Sisti, F. Colombo, S. Conte, C. Zanelli, M. Dondi, F. Dentella, I. Zanatto Recycling Man-Made Vitreous Fibres hazardous waste for the manufacture of traditional ceramics
13.30-13.45	M.E. Silva, M.V.R. Azevedo, G.A.V. Silva, B. Cirino-Crema, I.P. Brás Burned Soils Regeneration Practices: preliminary studies
13.45-14.00	J. Ryšavý, L. Kubonová, M. Dej 3D Printed Neutralization Modules for Gas Boiler Condensate: A Scalable Approach to pH Control
14.00-14.15	P. Petropoulou Hazardous Waste Management and One Health Approach

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ROOM 1
SESSION XXI

EU policies and strategies for solid waste management
Chair: K. Lasaridi, C. Dias-Ferreira, C. Marouli

15.00-15.15	J. Constantinidou Financial instruments in Cyprus: Pay as You Throw, Landfill Tax, Waste Management Fund, Circular Economy Agency
15.15-15.30	S. Fortatos, K. Boikou, C. Chroni, E. Sigala, K. Synani, K. Abeliotis, K. Lasaridi Harvesting Insights: Quantifying Primary Production Food Waste in Greece
15.30-15.45	D. Bregoli, D. Iacobucci, M. Ciro Liscio, P. Sospiro Waste management in the EUSAIR: an overview of the performance of the Adriatic-Ionian Countries
15.45-16.00	M. Demoz Tewodros, M. Ciro Liscio, M. Senekane, P. Sospiro Insights on comparative analyses of solid waste management regulations in Africa
16.00-16.15	M.M. Narra, K. Agboka, S. Narra, M. Nelles Exploring Extended Producer Responsibility for Sustainable Tyre Recycling in Togo and West Africa
16.15-16.30	P. Nowakowski Evaluation of the separate collection of waste in airport passenger terminals
16.30-16.45	A. Kunszabó, M. Süth, D. Szakos, G. Kasza Hungarian residents' habits and willingness to separate food waste at the source
16.45-17.00	S. Eikenberry, C. Marouli Student Attitudes on Food Waste at a Higher Education Institution: Insights for Institutional Policy and Strategy
17.00-17.15	I. Voukkali, E. Yiagkou, I. Papamichael, I. Vardopoulos, A. Zorpas Fostering Sustainability: The Role of Environmental Education in School Waste Management
17.15-17.30	T.P. Curran, L. Ní Chléirigh, M. Nic an Bhaire Developing a bioeconomy education programme for primary, secondary and tertiary level students
17.30-17.45	A. Koroma, R.E. Scott, J. Esson The Invisible Workforce: Informal Waste Pickers and the Challenges of Sustainable Waste Management in Freetown, Sierra Leone

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17.45-18.00	Shengnan Wang, Qian Zhang, Tingting Liu A powerful method to minimize household food waste and its environmental impacts—information interactions via social media
18.00-18.15	M.F Senekane Understanding the Socio-cultural systems of the rural communities in indigenous management of solid waste
18.15-18.30	C. Karkanias, A. Malamakis, L.M.S. Kingfisher, L.H.M. van de Burgwal, G.F. Banias Blockchain and megatrends: pathways to sustainable, inclusive and resilient food systems
18.30-18.45	Xiangbiao Yu, Tianyuan Li, Gongjin Cheng, Xiangxin Xue, He Yang Reduction of Solid Waste at Source: High-Proportion Pellet Smelting of Chromium-Bearing Vanadium Titanomagnetite
19.00-19.15	Closing Session with the active participation of chair persons – Poster award ceremony – Announcement of the place for the 2026 13th International Conference on Sustainable Solid Waste Management

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ROOM 2
SESSION XXII

Agricultural and/or livestock waste - Aerobic biological treatment – composting
Chair: K. Chojnacka, N. Tzortzakis, M. Stylianou

15.00-15.15	K. Chojnacka From Biomass to Fertilizer: The Role of Chemical Processes in Addressing Agricultural Challenges of the 21 st Century
15.15-15.30	F. Economou, I. Voukkali, V. Phinikettou, M. Stylianou, A. A. Zorpas Developing Standardized Food Loss Audit Protocols for Agricultural Producers
15.30-15.45	M. Batsioulas, A. Karanasiou, St. Skoutida, E. Papadopoulou, E. Athanasiadou, S. Patsios, G. Banias Agricultural biomass as a raw material: the case of sustainable particle boards production
15.45-16.00	G. Neofytou, A. Chrysargyris, N. Tzortzakis Struvite can substitute phosphorus needs in marigold soilless cultivation in regards to commercial fertilizers
16.00-16.15	I. Kaffman, R. Posmanik Hydrothermal Processing of High-Salinity Anaerobic Digestate: Transformation Pathways and Nutrient Retention in Hydrochar
16.15-16.30	G. Theochari, M. Popova, D. Kovacheva, D. Karashanova Sustainable methane production by CO ₂ hydrogenation on the Ni-Mn-modified mesoporous silicas obtained from rice husks
16.30-16.45	C. Papachrysostomou, M. Omirou, M. Constantinou, A. Zorpas, M. Stylianou Coccidiostat compounds present in animal waste
16.45-17.00	J. E. Hernández-Ruydiaz, J. Cabello E, M. Ortiz-Sánchez, D. D. Otero Meza, J. G. Salcedo – Mendoza, C. A. Cardona Alzate, C. Meza, S. K. Salgado A, C. Novoa P. Theoretical energy potential of biogas produced from agricultural waste in Sucre, Colombia: Subregional distribution
17.00-17.15	B. C. Gomes Rodrigues, B. Mello, J. Ferreira de Brito, A. José da Silva, K. C. Leal Visconcin, A. Sarti Evaluation of Electrooxidation as a Pretreatment for Lignin Extracted from Sugarcane Bagasse for Application in Anaerobic Digestion

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17.15-17.30	M. Samoraj, D. Skrzypczak, M. Mironiuk, G. Izydorczyk, K. Chojnacka Innovative ecological fertilizers based on waste biomass – concept and in vitro studies
17.30-17.45	D. Skrzypczak, F. Gil, M. Mironiuk, G. Izydorczyk, K. Chojnacka, M. Samoraj Final formulations of waste biomass-based fertilizers: evaluation in plant trials
17.45-18.00	G. Izydorczyk, D. Skrzypczak, F. Gil, M. Mironiuk, K. Chojnacka, M. Samoraj Bioefficacy of waste biomass-based fertilizers under drought and salinity stress in model crops
18.00-18.15	C.W. Hu, S.S. Feng, Q.X. Sun The conversion of silicon contained in agriculture waste to alkoxysilanes
18.15-18.30	K. Sobieraj The impact of organic matter content on the carbon monoxide (CO) production during food waste composting: the comprehensive lab-scale evaluation
18.30-18.45	B. Ben Ali, J. Ait Brahim, N. Haneklaus, R. Beniazza Phosphogypsum purification: Implications for use in cement production

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ROOM 3
SESSION XXIII

Waste Valorisation III
Chair: G. Mancini, F. Lombardi, A. Luciano

15.00-15.15	W. T. Stringfellow, M. K. Camarillo, P. F. Dobson, P. S. Nico Solid and hazardous waste production during geothermal lithium extraction
15.15-15.30	Huilin Li, L. M. Ottosen Rare-earth elements extraction from municipal solid waste incineration bottom ash by Electrodialytic Process
15.30-15.45	L. Acampora, G. Costa, I. Verginelli, C. Mensi, S. Malvezzi, F. Lombardi Evaluation of the Environmental Compatibility of the Use of Waste to Energy Bottom Ash in Porcelain Stoneware Tile Manufacturing through Leaching Tests and Risk Assessment
15.45-16.00	S. León-Gutiérrez, P. Delgado-Plana, M.A. Gómez-Casero, D. Eliche-Quesada One-part alkaline activated cements manufactured by the activation of brick dust and biomass bottom ash using a potential sustainable activator from spent diatomaceous earth
16.00-16.15	A. Masi, G. Costa, F. Lombardi Valorisation of the fine fraction from EAF steel slag treatment through the application of carbonation-based processes
16.15-16.30	S. Gómez-Sánchez, A. Montaña, A.P. Ponce-González, R.M. Ramírez-Zamora, B. Alcántar-Vázquez Geothermal silica waste as raw material for preparing CO ₂ sorbents
16.30-16.45	R. Arévalo, M. F. Magalhaes Advanced Simulation of Iron Oxide Reduction Using Hydrogen: CFD-DEM and USCM Integration
16.45-17.00	Naiqi Shang, D. Mombelli, M. Mariani, G. Dall'Osto, N. Lecis, M. Zago, I. Cristofolini, V. Fontanari Utilization of Stainless Steel 316L and Red Mud Composite on Binder Jetting for Innovative Direct Carbon Fuel Cell Anode production
17.00-17.15	A. Hejna, M. Barczewski, A. Bartnicki, J. Andrzejewski, J. Aniśko, R. Malinowski In pursuit of degradation – seeking beneficial effects of thermal and thermomechanical modification of plant-based materials used in polymeric materials
17.15-17.30	A. Serra-Toro, S. Peña-Picola, E. Abad, F. Valentino, S. Astals, J. Dosta Membrane treatment of fermentation liquids to recover ammonia and to concentrate Volatile Fatty Acids

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17.30-17.45	P. Izák, P. Stanovský, K. Friess New membranes for mix gas and flue gas separation
17.45-18.00	E. Moutafis, A.S. Dounavis Valorization of Recycled Materials and Organic Residues of Agricultural, Livestock and Industrial Origin for Energy and Compost Production within the Circular Economy Framework
18.00-18.15	H. A. F. Rahmy, S. Nour El-Deen, F. M. Abosamra , A.I. E. M. Mahmoud, A. M. Khaled, A. S. M. Korayema Valorization of Olive Cake as a By-product in Broiler Ration and its Effect on Growth, Carcass Characteristics and Blood Parameters
18.15-18.30	S. M. Hailan, Z. Nogellova, A. Popelka, M. Ilcikova, M. Mrlík, A. Minařík, F. Mikulka, G. McKay, I. Krupa Utilization of polyethylene waste for designing foamy oil sorbents
18.30-18.45	A. Luciano, L. Petta, L. Gurreri, D. di Trapani, G. Mancini Energy efficiency in wastewater treatment plant through modelling and process control: the SMARTEE-PLANTS project
18.45-19.00	D. Bonanno, A. Luciano, G Benina, C. Gatto, G. Mancini A sustainable treatment of the residues from industrial waste incineration

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ROOM 4
SESSION XXIV

Sludge Management & Recovery of materials from wastewater & sludge
Chair: A. G. Capodaglio, P. Hlavinek, M. Smol

15.00-15.15	R. Annelio, C. De Ceglie, S. Murgolo, M. De Sanctis, Ed. Slavik, G. Mascolo, Cl. Di Iaconi An advanced biological treatment for PFAS removal from landfill leachate
15.15-15.30	D. Hidalgo, E. Pérez, A. Urueña, D. Díez, M. Andérez, J.M. Martín-Marroquín, M.A. Sánchez, M. Gómez Hydrothermal carbonization of sewage sludge under different reaction conditions: Biodegradability and biomethane potential of the generated liquid fraction
15.30-15.45	F. Alizad Oghyanous, C. Eskicioglu Hydrothermal Liquefaction of Municipal Sludge from Biological Nutrient Removal Plant: A Process for the Circular Economy
15.45-16.00	O. Khoury, S. Spatari, R. Posmanik Hydrothermal Carbonization of Sewage Sludge: A Sustainable Approach for Phosphorus Recovery and Greenhouse Gas Mitigation in Wastewater Treatment Plants
16.00-16.15	L. di Bitonto, V. Locaputo, C. Pastore Solvent-free method for lipid extraction from sewage sludge: a dual and synergistic approach for reducing emerging pollutants
16.15-16.30	Z. Prus, K. Szkadłubowicz, J. Mikusińska, X. Badura, J. Worek, K. Kawoń, M. Rugieł, J. Chwiej, K. Styszko, M. Wilk The Effect of Hydrothermal Carbonization of Sewage Sludge on Microplastic
16.30-16.45	Praveen Kumar Vidyarthi, Pratham Arora, Nadège Blond Sustainability assessment of valorisation for sewage sludge: Indian case study
16.45-17.00	S. L. Parra-Angarita, H. Ben Hamed, A. Fantasse, A. Leonard Understanding Dehydrated Sludge Drying: The Role of Viscoelastic Properties
17.00-17.15	S. Durán-Videra, R. Rodríguez-Alegre, L. Pérez Megías, J. Erreyes Piloza, C. Andecochea Saiz, X. You Extraction of Humic and Fulvic acids from sewage sludge at different pH
17.15-17.30	P. Hlavinek, J. Kucerik, T. Chorazy, J. Racek Defining the potential for effective processing and recycling of industrial sludge

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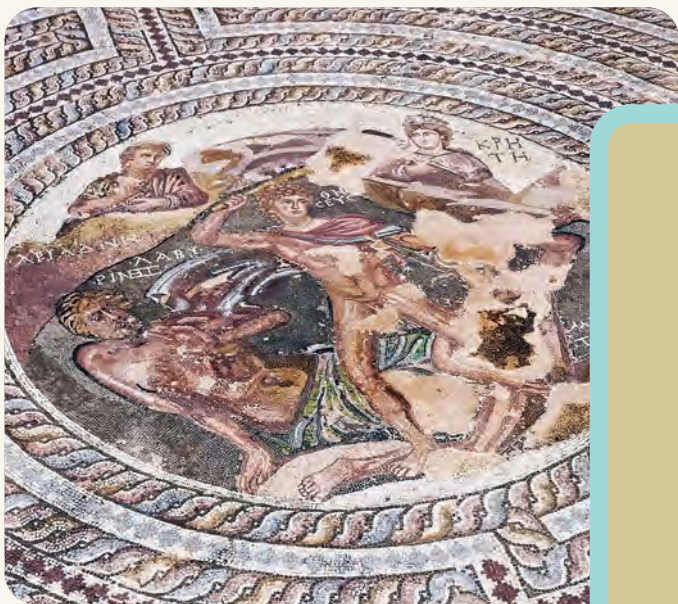
17.30-17.45	H. Ben Hamed, S. Chakam-Kom, S. L. Parra-Angarita, D. Toye, A. Léonard Sewage sludge stabilization through indigenous microalgae promoting growth: performance in a 20L tubular photobioreactor
17.45-18.00	A. Wijatkowska, F. Gil, D. Skrzypczak, K. Chojnacka Biostimulatory potential of waste whey-derived fertilizer: composition, processing and plant response
18.00-18.15	R. Taf, F. Gil, M. Mironiuk, K. Chojnacka Optimization of the acid hydrolysis process of dairy waste for the production of organic-mineral fertilizer
18.15-18.30	D. Szołdrowska, P. Marcinek, E. Walus, M. Smol Organic waste as a source of nutrients in agriculture – the potential of sewage sludge, animal manure and digestate
18.30-18.45	H. Abu-Qdais, W. Taan Promoting Solid Waste Composting Through Policy Reforms: The Case of Jordan



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