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MUNICIPALITY OF
CHANIA • CRETE



CHANIA2023

21-24 JUNE

chania2023.uest.gr



10th International Conference on Sustainable Solid Waste Management



10th International Conference on Sustainable Solid Waste Management

WELCOME

On behalf of the Scientific and Organising Committee, I am pleased to welcome you to the **CHANIA 2023 10th International Conference on Sustainable Solid Waste Management**.

As in the cases of the previous international conferences, the **CHANIA 10th International Conference** aims to make a further step forward in the field of solid 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. This year we expect to exceed the number of 1,000 participants including both virtual participants and those traveling to the beautiful island of Crete. Actually, it is the 2nd time we host a conference of this series in Crete, after the successful conference in Heraklion in June 2019, the last conference before COVID-19. Every year significant effort is made to improve the quality of the papers and keep high standards, as proven by the increase of the papers finally published in the collaborating journals with high reputation and high impact factors.

Quality is always our first and main criterion and that is why we are also establishing collaboration with new journals, e.g. this year we have for the first time: ENVIRONMENTAL POLLUTION (ELSEVIER, Impact Factor: 9.988) & ENVIRONMENTAL RESEARCH (ELSEVIER, Impact Factor: 8.431). 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 5th 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 to different research fields every year.

The **CHANIA 2023 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 WASTe to ENERGY 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. Nickolas Themelis, the father of the 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.).

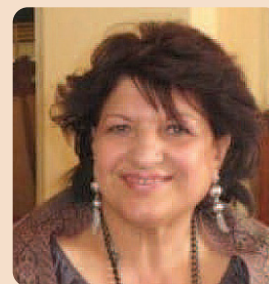
The Conference will provide an opportunity to bring together scientists & professionals from government departments, industries, Municipalities, private institutions, research & education institutions, being a forum for the exchange of the most recent ideas, techniques & experiences in a broad area of 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 and minimize residues for landfilling. The Conference agenda is rich and dense, offering a considerable variety of topics presented through more than 550 presentations within the twenty-six different oral sessions and an extensive poster session with more than 200 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 final event of the H2020 Project “WaysTUP!: Value chains for disruptive transformation of urban biowaste into biobased products in the city context” Friday morning, while the Launching event of the LIFE CO₂toCH₄ project with title “Demonstration of a mobile unit for hybrid energy storage based on CO₂ capture and renewable energy sources” has been scheduled on Thursday. Lastly, we have included in the agenda a LIFE networking session on Thursday organized by the new capacity building project Greek Life Task Force plus (LIFE21-CAP-EL-GRLTFplus) of the Green Fund in collaboration with ELMEN-EEIG, the external LIFE project monitoring team.

I 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, I would like to thank the co-organisers, the Waste-to-Energy Research & Technology Council, the Region of Crete, the Municipality of Chania, the DEDISA that is responsible for municipal waste management in Chania and the sponsors for the support to the conference.

We hope you will find the **CHANIA 2023 Conference** interesting, useful and up to your expectations. After the hybrid conference last year in Corfu, we are happy that 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

10th International Conference on Sustainable Solid Waste Management

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Ioannis Skiadas, Technical University of Denmark
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Venue & Social Events



Chania Municipal Garden

The **CHANIA 2023 conference** will take place both with physical presence at the **Cultural Centre of Chania** and online (virtually).

The **welcome cocktail** will take place on 21st June 2023 at the **Chania Municipal Garden** after the end of the conference sessions, while the **Gala Dinner** will take place on Thursday 22nd June 2023.

A **one-day excursion** (by bus) will take place on Saturday 24th June 2023 starting from the Cultural Centre of Chania at 8.30 a.m. The site visit will start with the visit at the waste management facilities of **DEDISA**. The return time at the **Cultural Centre of Chania** is estimated at about 18.30.



Cultural Centre of Chania

Waste management facilities
of DEDISA



Publications

in International Scientific Journals

High quality **CHANIA 2023 papers** will be published after evaluation in:

a Special Issue of **ENVIRONMENTAL POLLUTION** (Elsevier, Impact Factor: 9.988) with title: Sustainable management and mitigation of municipal waste

a Special Issue of **ENVIRONMENTAL RESEARCH** (Elsevier, Impact Factor: 8.431) with title: Energy recovery from waste within the circular economy era

a Special Issue of **SUSTAINABLE CHEMISTRY & PHARMACY** (Elsevier, Impact Factor: 5.464) with title: Waste management and resource efficiency in the era of circular economy

a Special Issue of **ENVIRONMENTAL SCIENCE & POLLUTION RESEARCH** (Springer, Impact Factor: 5.190) with title: SUSTAINABLE WASTE MANAGEMENT & VALORISATION WITHIN THE CIRCULAR ECONOMY ERA

a Special Issue of **BIOMASS CONVERSION AND BIOREFINERY** (Springer, Impact Factor: 4.050) with title: Treatment of food and other biodegradable waste streams

a Special Issue of **WASTE AND BIOMASS VALORIZATION** (SPRINGER, Impact Factor: 3.449) in collaboration with Prof. Ange Nzihou, Editor-in-Chief of the Journal

a Special Issue of **SUSTAINABLE CHEMISTRY FOR THE ENVIRONMENT** (ELSEVIER, gold open access without publishing fee) in collaboration with Prof. Konstantinos Triantafyllidis, Editor-in-Chief of the Journal



Wednesday, 21 June 2023

All times are in Greek Time

8.00-9.15

Registration

ROOM 1

Welcome Speeches

Chair: M. Loizidou

9.15-9.45

Welcome Speeches

9.45-11.15

Keynote Speakers

Chair: M. Loizidou

Arnoldas Milukas, European Research Executive Agency - European Commission

EU Research and Innovation: New Funding Opportunities for the Circular Economy

Nicolas Abatzoglou, Université de Sherbrooke

Towards hybrid biorefineries: Waste plastics and metal-contaminated biomass as sources of nanocarbons, synthesis gas, hydrogen and liquid biofuels

Stephen Smith, Imperial College London

Organic micropollutants: their control, occurrence and consequences for recycling systems

Jonathan W.C. Wong, Hong Kong Baptist University, Hong Kong

In-situ composting strategies for sustainable food waste digestate management

Dan Tsang, Hong Kong Polytechnic University

Emerging biochar construction materials towards carbon neutrality

11.15-11.45



Coffee Break

ROOM 1
SESSION I
MSW management I
Experience of local authorities in waste management
Chair: M. Loizidou

11.45-12.00	K. Paterakis Comparative assessment of the qualitative characteristics of the produced compost from the separate collection of biowaste and of the soil improver from the organic fraction of mixed waste
12.00-12.15	M. Geranis Circular Economy: From theory to practice
12.15-12.30	K. Borboudaki ESDAK initiatives in the field of waste management
12.30-12.45	I. Segkos The era after MBT
12.45-13.00	M. Loizidou Waste management in Cyprus – Central Facilities and their challenges
13.00-13.15	E. Stylianopoulou, J. Constantinidou, A. Adamou, Ch. Mavronicola LIFE-IP CYzero WASTE: Intelligent monitoring and efficient waste reduction in Cyprus Island
13.15-13.30	P. Psonopoulos, I. Glarakis, E. Dellaporta, D. Tangilis, T. Paschali Organization and Monitoring of an integrated system of separate collection of biowaste at Central Macedonia Local Authorities
13.30-13.45	P. Kafasis Innovative circular economy activities of the Integrated Waste Management System of DIADYMA
13.45-14.00	E. Tritopoulou, A. Katsiaganni, M. Flemetaki, K. Paterakis Pay as you Throw in Chania Municipality
14.00-14.15	P. Gkouvousis Helector S.A.: Accelerating towards a circular economy transition. Our mission and vision
14.15-14.30	G. Michalopoulos Mesogeos experience from 1 year's operation of the MBT plant in Alexandroupoli
14.30-14.45	Thalis E.S S.A Investing in the circular economy: Challenges and opportunities
14.15-15.00	Lunch Break

ROOM 2
SESSION II
Circular Economy & Symbiosis Networks
Chair: J. W.C. Wong, D. Hidalgo, D. San Martin

11.45-12.00	M. Batsioulas, S. Skoutida, D. Geroliolios, L. Melas, C. Karkanias, A. Malamakis, S. Patsios, G.F. Baniyas Mapping the biological feedstock streams: A methodological approach for Material Flow Analysis to support the transition to a Circular Bioeconomy
12.00-12.15	B. Iñarra, J. Ibarruri, C. Bald, M. Gutiérrez, D. San Martin, N. Luengo, J. Ferrer, J. Zufía Optimization and scaling up bioactive peptides production from fish discards
12.15-12.30	L.D. Allegue, V. Marchisio, M. Perez, M. Figueroa, M. Margallo, D. Mendez RE-FISH TO FOOD biorefinery: Valorization of seafood and cannery industry resources into alternative proteins
12.30-12.45	S. Fraterrigo Garofalo, T. Tommasi, D. Fino Valorization of fish processing waste through enzymatic extraction: a short review
12.45-13.00	H. Domínguez, B. Iñarra, C. Bald Optimization of the autolysis of rainbow trout viscera for amino acid release using response surface methodology
13.00-13.15	D. Christianides, A. Tsimaras, F. Chatzimaliakas, I. Bousoulas, M. Chatziaggelakis, K. Passadis, D. Malamis, K. Moustakas, E.M. Barampouti, S. Mai Production of orange peel-based ingredients for dairy sheep feed in pilot scale
13.15-13.30	A. Djukić-Vuković, J. Grbić, S. D. Mladenović, Pavlović, S. Lazović, L. Mojović Corn stalks as a lignocellulose substrate for biorefinery applications
13.30-13.45	E. Garcia Muchart, L. Mejias Torrent, O. Martínez-Avila, S. Ponsá Salas Novel biostimulant bacterial exopolysaccharides production via solid-state fermentation as a valorisation strategy for agri-food waste
13.45-14.00	Junye Wu, Yiyang Wang, Guiying Lin, Lifeng Li, Chi-Hwa Wang, Tianshu Ge The application of water hyacinth biochar as the soil conditioner for vegetable planting in greenhouses with direct air capture CO2 enrichment: a comparative study
14.00-14.15	L. Alizadeh, M. Ciro Liscio, P. Sospino The phenomenon of greenwashing in the fashion industry: a conceptual framework

14.15-14.30	E. Kokkinomagoulos, A. Stamkopoulos, A.M. Michaelidou, A.M. Goula, P. Kandyliis Sustainable exploitation of wine lees for winemaking applications: a circular economy approach
14.30-14.45	P. Delgado-Plana, D. Eliche-Quesada, S. Bueno-Rodríguez, L. Pérez-Villarejo Alternative activation of silicomanganese slag with olive biomass fly ash to produce one-part geopolymers for a circular economy
14.45-15.00	Lek Hong Lim, Preston Tan, Wei Ping Chan, Andrei Veksha, G. Lisak, Wen Liu A techno-economic assessment of CO ₂ capture from incineration from flue gases reutilising municipal solid waste incineration ashes

ROOM 3 SESSION III

Recovery of materials from wastewater, sludge - Sludge Management Chair: K. Chojnacka, S. W.H. Van Hulle, B. Ruffino

11.45-12.00	Jie Bu, Y.W. Tong Recovery of resources from wastewater to synthesise nutrient-loaded slow-release hydrogel: Release characteristic and mechanism
12.00-12.15	G. Campo, B. Ruffino, A. Reyes, M.C. Zanetti Options for the reuse of municipal wastewater in the Antofagasta mining district: a 3-E analysis for a nearly-energy positive WWTP
12.15-12.30	A. Kaskova, M. Kwapinska, W. Kwapinski, J.J. Leahy Comparison of hydrothermal carbonization and low-temperature pyrolysis for nutrients recovery from the milk/dairy processing sludge
12.30-12.45	M. Zubrowska-Sudol, J. Walczak, N. Doskocz, A. Narożniak Hydrodynamic disintegration of sewage sludge – recovery of organic compounds, biomass deactivation, cell lysis
12.45-13.00	J. Walczak, M. Zubrowska-Sudol Impact of total solids concentrations on release of organic compounds via mechanical disintegration of sewage sludge
13.00-13.15	D. Kumar Singh, A. Garg Application of sewage sludge derived hydrochar as an adsorbent for removal of methylene blue dye from wastewater

13.15-13.30	S.W.H. Van Hulle Optimisation of advanced oxidation processes in view of organic (micro)pollutant removal from (waste) water in view of water reuse
13.30-13.45	C. Bald, F. Eloy, H. Domínguez, B. Iñarra, C. Thonar, D. San Martín, M. Gutierrez Production of biofertilizers from tuna cooking waters through membrane nanofiltration and enzymatic hydrolysis
13.45-14.00	Satya Brat Tiwari, Eunice Weilin Wong, Andrei Veksha, Wei Ping Chan, Wen Liu, Xunchang Fei, Teik-Thye Lim Phosphorus recovery from sewage sludge amended with alum and ferric sludges using sequential extraction and pyrolysis
14.00-14.15	M. Gutierrez, D. San Martin, J. Ibarruri, C. Bald, J. Zufía, B. Iñarra Scaling up of savoury compounds production from mussel cooking side streams
14.15-14.30	M. Dosa, N. Grifasi, C. Galletti, D. Fino, M. Piumetti Natural zeolite clinoptilolite for wastewater treatment
14.30-14.45	S. Anangadan, J. Saththasivam, S. Pradhan, G. McKay, H. R. Mackey A comparative study of the impact of greywater and freshwater irrigation on plant growth and biomass production
14.45-15.00	K. Tsamoutsoglou, A. Manali, P. Gikas Microsieving: A novel process for the removal of suspended solids from wastewater, upfront of the aeration tank

ROOM 4
SESSION IV
Bioprocesses, Biorefineries in waste management I
Chair: A. Zouboulis, K. Lasaridi, T.A. Kotsopoulos

11.45-12.00	A. Chatzis, M. Gaspari, K. Kontogiannopoulos, A. Zouboulis, P.G. Kougias Comparative assessment of different packing materials in biological methanation
12.00-12.15	T. Sari, D. Akgul, B. Mertoglu Assessing the potential of anammox bacteria as an alternative bioenergy resource
12.15-12.30	D. L. Restrepo-Serna, C. A. Cardona-Alzate A comparison between the solvent extraction and supercritical fluid extraction to obtain polyphenolic compounds using the orange peel as raw material
12.30-12.45	A.A. Lithourgidis, S.D. Kalamaras, M.A. Morales, I. Angelidaki, M. Pinelo, T.A. Kotsopoulos Purification of fermentation broths produced from industrial candy waste towards separation and recovery of bio-succinic acid
12.45-13.00	A. Arias, C.-El. Nika, V. Vasilaki, G. Feijoo, M. T. Moreira, E. Katsou Environmental, economic and circularity assessment of the hydrothermal liquefaction of black liquor under a biorefinery approach
13.00-13.15	C. Treinen, J.A. Poveda-Giraldo, J.C. Solarte-Toro, D.L. Restrepo-Serna, P. Noll, M. Henkel, R. Hausmann, C.A. Cardona Alzate Assessing the feasibility and sustainability of surfactin bioprocesses: A techno-economic and environmental analysis
13.15-13.30	Yang Bai, Xinmin Zhan FeS-based autotrophic denitrification for removal of nutrients and emerging contaminants
13.30-13.45	K. Czerwińska, S. Del Pero, L. Lombardi, A. Polettini, R. Pomi, A. Rossi, S. Shivali, M. Śliz, M. Wilk, T. Zonfa Environmental evaluation of innovative biorefinery process
13.45-14.00	S. Torres-Herrera, J. Palomares-Cortés, J.J. González-Cortés, X. Gamisans, D. Cantero, M. Ramírez Biogenic sulfur flocculation from pilot bioscrubber for landfill biogas desulfurization
14.00-14.15	G. Ghiotto, S. Campanaro, L. Treu Strain resolved metagenomics applied to biogas upgrading

14.15-14.30	S. Werle, S. Sobek, M. Sajdak, H. Mumtaz, R. Muzyka, P. Sakiewicz Experimental Analysis of the Solvolysis and Oxidative Liquefaction of the End-of-Life Composite Wastes
14.30-14.45	F. Sereti, M. Alexandri, D. Tagiou, F. Mpatsolaki, A. Papadaki, N. Kopsahelis Rhodosporidium paludigenum yeasts as a novel biotechnological tool for natural carotenoids production

ROOM 1
SESSION V

MSW management II
Experience of local authorities in waste management
Chair: M. Loizidou, K. Moustakas, D. Malamis

15.00-15.15	M. Romenska EPR as tool for plastic packaging circularity
15.15-15.30	M. Donner, H. De Vries Emerging collaborative circular bioeconomy business models in France
15.30-15.45	J. Faitli, S. Nagy, C. Ágoston, A. Szabo, P. Szakolcai EPR and DRS Based Municipal Solid Waste Analysis Seasonal Campaigns in Hungary
15.45-16.00	V. Stergiou, H. Xirou, N. Cretsi-Bacolas, A. Stamos Assessment of the waste management of portable and industrial batteries in Greece in light of the new EU battery regulation
16.00-16.15	V. Sousa, A. Drumond, I. Meireles, C. Dias-Ferreira Waste generation pattern drivers: the impact of economic crisis, pandemics and war
16.15-16.30	M. Struk, T. Lebánková Improving biowaste management practices using municipal and citizen perspectives
16.30-16.45	H. Xirou, V. Stergiou, C. Sherrington, M. Hilton, L. Eggleston Proposals towards the design of a Greek Deposit Refund System

16.45-17.00	S. Manzur, T. Thomas Characterizing solid waste in New York State: 2022 sampling results
17.00-17.15	S.V. Theodoridou, S.Lianoudaki, E.D. Polytides Investigation of the impact of Environmental Education on the Greek family through her children. A Case study on the topic of carbon footprint
17.15-17.30	G. Tavoularis, A. Sakalis, T. Lolos, C. Tsompanidis, M. Tsakona A Circular Economy and Marine Litter Strategy for the Maldives small-island country
17.30-17.45	A. Alahmary, X. Yan A Review of Municipal Solid Waste Management in Saudi Arabia Environmental, Economic and Social Perspective
17.45-18.00	B. Moura, H. Monteiro MAM as a more resource efficient alternative to conventional machining: A systematic review
18.00-18.15	I. Voukkali., I. Papamichael, P. Loizia, M. Stylianou, A.A Zorpas Building resilient coastal cities in Mediterranean Area. The 15-minute city approach
18.15-18.30	K. Manabe, T. Shimaoka Research on the estimation of disaster waste generation potential and generation intensity
18.30-18.45	P. Nowakowski, M. Wala Towards sustainable community – the evaluation of the local municipal waste collection centers by residents – a case study of Poland
18.45-19.00	N. Hamizah Mohamed, S. Khan, S. Jagtap Waste 4.0: Towards Digitalization in Waste Management Segregation
19.00-19.15	E.A. Diamantouli, L. Stendardo Wastelands and circular economy: landfills as a reused, "recycled" or restored space
19.15-19.30	U. Bassey, Abasi-Ofon Tom, U. Luke, U. Okono, J. Mbetobong, M. B. Sinn, A. Bassey Characteristics and management of municipal solid waste in Uyo, Akwa-Ibom State, Nigeria
19.30-19.45	A. Castellucci, A. Zunguze, I. Rama, E. Rada, V. Torretta, M. Ragazzi Benefits of switching from incineration to sterilisation of health-care waste in Beira, Mozambique: sustainability, reuse of treated material, safety at work
19.45-20.00	M. Waqas, A. S. Nizami Unlocking Integrated Waste Biorefinery Approach by Predicting Calorific Value of Waste Biomass

ROOM 2
SESSION VI
Tools in the field of waste management & Management of Specific Waste Streams
Chair: U. Yetis, F. Dilek, L. Lombardi

15.00-15.15	V. Orfanos, D. Barkas, A. Nikolaou, H.C. Leligou, S.D. Kaminaris, C.S. Psomopoulos IoT technologies applied in Waste Management
15.15-15.30	G. Hafner Digital Tools for Monitoring and Reducing Food Waste in the Tourism Sector - Experiences and Results from Greece and Germany
15.30-15.45	M. Legan, P. Štukovnik, K. Zupan, A. Žgajnar Gotvajn Effect of differently shaped recycled PET plastic on the early-age properties of cement mortar
15.45-16.00	N. Stoikou, A. Symeonidis, E. Moreno-Ruiz ecoinvent database as a tool for waste treatment modelling and Life Cycle Assessment
16.00-16.15	L. Lombardi LIFE-C project: spreading Life Cycle Thinking in higher education
16.15-16.30	P. Sospiro, M. Ciro Liscio Life Cycle Assessment on fashion industry: four case studies
16.30-16.45	D. Silva, H. Monteiro, F. Ribeiro, R. Rocha Life Cycle Assessment of an innovative aeronautic thermoplastic carbon composite produced by stamping
16.45-17.00	S. Chari, A. Sebastiani, A. Paulillo, P. Lettieri, M. Materazzi Waste to hydrogen with CCS: Life cycle assessment of plant operation and feedstock variation
17.00-17.15	A. Castagnoli, I. Pecorini, R. Iannelli The Waste to methanol process: an eco-sustainability assessment from a life cycle perspective
17.15-17.30	F. Soltanipour, F. Donsì, G. Ferrari Process optimization, techno-economic and life cycle analyses for the extraction of valuable compounds from agri-food residues
17.30-17.45	S. R. Raut, M. K. Chandel Advancing the circular economy for e-commerce packaging waste in India by closed loop models

17.45-18.00	P. N. Mandaliev, R. M. Schreiber, J. Dupont A fast and cost-efficient method for rapid monitoring of foreign substances in biogenic waste and organic recycled fertilizer based on hyperspectral imaging and artificial intelligence
18.00-18.15	N.U.M. Nizam, M.M. Hanafiah Synthesis, Optimisation and Cradle-to-Gate Life Cycle Assessment (LCA) of Biowaste-Derived Nanomaterials: A Circular Bioeconomy Approach
18.15-18.30	G. Mavrias, P. Grammelis, I. Kontodimos, C. Ketikidis, D. Kourkoumpas Pilot application of modified asphalt mixture with End of Life Tires (ELTs) and Reclaimed Asphalt Pavement (RAP)
18.30-18.45	C. Hoffmann Sampaio, W. Monteiro Ambrós, B. Grigore Cazacliu, J. Oliva Moncunill, M. Medeiros Veras, G. Luis Miltzarek, A. Salvador Kuerten, M. Alejandra Liendo, J. Luis Cortina Construction and Demolition Waste Concentration in Water Jig, Air jig, and Sensor-Based Sorting
18.45-19.00	A. Piccinali, A. Abbà, A. P. Galvin, G. Plizzari, S. Sorlini Characterization of aggregates from construction and demolition waste in relation to Italian and Spanish regulations
19.00-19.15	J. Alexandre Bogas, R. Cruz, B. Azevedo, S. Real, M. da Glória Gomes Physical and Mechanical strength characterization of compressed earth blocks produced with recycled cement
19.15-19.30	M. Glória Gomes, J. Alexandre Bogas, S. Real, R. Cruz Thermal conductivity of compressed earth blocks produced with recycled cement
19.30-19.45	J. Alexandre Bogas, R. Cruz, B. Azevedo, A. Balboa, V. Sousa Water resistance of recycled cement compressed earth blocks
19.45-20.00	D. Silva, H. Monteiro, F. Ribeiro, R. Rocha Environmental impact of an innovative aeronautic carbon composite produced via heated vacuum-assisted resin transfer moulding

ROOM 3
SESSION VII
Bioprocesses, Biorefineries in waste management II
Chair: C.A. Cardona Alzate, N. Abatzoglou, C. Kennes

15.00-15.15	C. Kennes, M. C. Veiga C1-gas (syngas, CO ₂) bioconversion to biofuels and bioproducts
15.15-15.30	C. A. Cardona, J. Camilo Solarte-Toro, M. Ortiz-Sanchez, P. J. Inocencio-García, J. Salcedo, J. Hernández, D. Otero Bioenergy and Biorefinery potential of residues: A representative case of the Sucre region in Colombia
15.30-15.45	R. Rebolledo-Leiva, S.M. Ioannidou, A. Arias, D. Ladakis, A. Koutinas, M. T. Moreira, S. González-García Environmental hotspots analysis of the second-generation polylactic acid (PLA) based on wheat straw
15.45-16.00	J.A. Poveda-Giraldo, C.A. Cardona Alzate Analysis of catalyzed acid pretreatments as the basis for the design of lignocellulosic biorefineries
16.00-16.15	S. Peña-Picola, A. Serra-Toro, M. Peces, J. Vila, M. Grifoll, F. Valentino, S. Astals, J. Dosta Acidogenic fermentation coupled with nitrogen recovery using a gas-permeable membrane to produce a VFA-rich liquor with a high C/N ratio
16.15-16.30	M. Gottardo, G.A. Tuci, A.C. Parmar, P. Pavan, F. Valentino Tannery sludge valorization through biological processes: preliminary evaluation of biogas and short-chain fatty acids (SCFAs) production
16.30-16.45	P. Karanicola, M. Patsalou, P. Christou, G. Panagiotou, M. Koutinas Development of a citrus processing waste-based biorefinery for production of high-added value commodities
16.45-17.00	C. A. Cardona Alzate, J. C. Solarte Toro, V. Aristizábal-Marulanda Biorefineries design and implementation in crisis times: A challenge for sustainable development
17.00-17.15	E. A. Nanaki, S. J. Kiartzis Investigating the role of biorefineries within the concept of circular economy
17.15-17.30	G. Proietti Tocca, F. Regis, S. Fratterigo Garofalo, V. Agostino, B. Menin, T. Tommasi, D. Fino Valorization of gas fermentation acetate - rich outflow into valuable microalgal biomass

17.30-17.45	I. Papachristou, C. Anagnostopoulou, K. N. Kontogiannopoulos, P. G. Kougias Carotenoid extraction from microalgae cultivated in food industry effluents for the production of cosmeceuticals
17.45-18.00	I. Kontogeorgos, H. Bylinski, M. Szopinska, A. Remiszewska – Skwarek, A. Łuczkiwicz, S. Fudala – Ksiazek Low-thermal pre-treatment of organic fraction of municipal solid waste – effect of solubilization
18.00-18.15	F. Demichelis, F. Deorsola, T. Tommasi, D. Fino Close the loop: study of the effect of digestate derived biochar on anaerobic digestion of organic fraction municipal solid waste.
18.15-18.30	C.L. Duarte, J. Fradinho, B.S. Ferreira, J.F.B. Pereira, M.A.M Reis Upcycling microalgae side streams for biopolymers production
18.30-18.45	D. L. Restrepo-Serna, C. A. Cardona-Alzate A comparison between avocado peel var. Hass and var. Lorena to obtain polyphenolic compounds
18.45-19.00	M. Gaspari, A. Chatzis, E. Orellana, L. Treu, K. Kontogiannopoulos, S. Campanaro, A. Zouboulis, P.G. Kougias Metagenomic analysis on hydrogen assisted carbon dioxide fixation for biomethane production
19.00-19.15	A. Xirostylidou, M. Gaspari, A. Zouboulis, P. G. Kougias Investigation of the effect of different packing materials on biogas upgrading
19.15-19.30	D. Mladenović, J. Grbić, A. Djukić-Vuković, L. Mojović Fractionation of corncob biomass towards sustainable valorization in biorefinery processes
19.30-19.45	A. Oulakhir, K. Lyamlouli, M. Danouche, R. Benhida Biosorption of a cationic dye using raw and functionalized Chenopodium quinoa pericarp biomass after saponin glycosides extraction, a sustainable approach to a green, zero waste-management

ROOM 4
VIRTUAL
SESSION VIII

Waste-to-Energy & Energy from Waste I & Anaerobic Digestion
Chair: A.-S. Nizami, S. Kumar, M. Tabatabaei, S. Varjani, A. Bourtsalas

15.00-15.15	T. Qureshi, M. Farooq, A. Nizami, F. Riaz, U. Ali, M.H. Siddiqi Thermo-Gravimetric Investigation of Biofuel Mix Performance for Renewable Energy Generation
15.15-15.30	F.C.C. Sacramento, V.M. Zanta, L.M. Queiroz Effects of climate conditions variation on methane recovery in a municipal solid waste landfill: a Brazilian case study
15.30-15.45	H. Raclavská, J. Růžicková, D. Juchelková, M. Šafář, M. Kucbel, B. Švédová, K. Raclavský, K. Slamová Torrefaction of spruce biomass under different conditions and characterising the formation of volatiles during thermodegradation
15.45-16.00	M.A.M. Costa, A.J.D. Souza, B.S. Melo, E. A. Oliveira, L.F. Oliveira, G. Albin, A. Sarti, K.J. Dussan Energy crisis: the use of biomass as fuel, its emissions and CO ₂ capture
16.00-16.15	A.L. Araujo, F.T. Silva, A. Ribeiro, J.B. L. M. Campos, R.M. Pilão Effect of temperature on the gasification of animal fat: Preliminary results
16.15-16.30	A.I. Tanase, N. Slavu, C.K. Banica, A. Hadar, C. Dinca Mobile energy generation system based on biomass waste gasification
16.30-16.45	J. Skrinsky, L. Niedzwiecki, M. Azam Saeed Safety Characteristics of Biomass Waste after Gasification Using the 20-L Dust Explosion Vessel
16.45-17.00	M. Quintero-Naucil, J. Salcedo-Mendoza, V. Aristizábal-Marulanda Assessment and comparison of thermochemical pathways for the rice residues valorization: pyrolysis and gasification
17.00-17.15	A. H. Seikh, M. Rezaul Karim, H. Al-Harbi, I. Abdullah Alnaser, J. Ali Mohammed, H. Sayed Abdo, M. Omer Aijaz Production of Bio-Oil and Biochar from agricultural waste by using Pyrolysis process
17.15-17.30	A. Ayub, D. Habib, M. Ashir Murtaza, A.S. Nizami Product Space Model analysis of biomass waste utilization for bioenergy and economic growth in different countries

17.30-17.45	F. Hussain, A. Ahmad, M. Hassan Javed, A.-S. Nizami Designing of Mixed Municipal Solid Waste Processing Line to Produce Refused Derived Fuel: under Life Cycle Assessment
17.45-18.00	T. Qureshi, M. Farooq, A. Nizami, F. Riaz, U. Ali, M.H. Siddiqi Structural Analysis for Developing Organic Waste Biorefinery Model through Integrated Sustainable Approach
18.00-18.15	M. De Sanctis, V. Guido Altieri, F. Tedeschi, C. Di Iaconi Comparison among thermal pre-treatments effectiveness in increasing anaerobic digestibility of OFMSW
18.15-18.30	B. Sampaio de Mello, A. Pozzi, B. C. Gomes Rodrigues, M. A. Martins Costa, A. Sarti Anaerobic digestion of crude glycerol from biodiesel production for biogas generation: Process optimization and pilot-scale biodigester operation
18.30-18.45	V.P. Aravani, V.G. Papadakis Technoeconomic Assessment for the Viable Exploitation of Western Greece' Biomass Residues by an Innovative Pyrolysis-Anaerobic Digestion Processing Plant
18.45-19.00	Y. Kabakci, S. Kosar, O. Dogan, F.G. Uctug, O.A. Arikan Enhancement of methane production by applying electrohydrolysis pretreatment in anaerobic digestion of OFMSW
19.00-19.15	E. Sobolewska, S. Borowski, P. Nowicka-Krawczyk The use of solar light for green algae cultivation and liquid digestate treatment
19.15-19.30	V. Kumar Tyagi, Banafsha Ahmed, A A Kazmi Insight into thermally enhanced and conductive material-mediated anaerobic codigestion of organic fraction of municipal solid waste
19.30-19.45	Ying Zhang, Zhi-yuan Bai, Yi-Xin Zhang, Fang Zhang, Wen-Xin Zhang, Yu Lu, Shuai You Improving the catalytic efficiency and thermostability of GH10 xylanase from <i>Cladophialophora carrionii</i> by rational design
19.45-20.00	A. Tomar, A. Rajpal, A.A Kazmi, A.K. Goel, V. Tyagi Onsite wastewater Treatment by Modified Anaerobic Baffled Reactor

8.00-9.30

Registration

ROOM 1

9.00 - 10.45

Keynote Speakers**Chair: K. Moustakas, D. Malamis****Sunita Varjani, City University of Hong Kong & University of Petroleum and Energy Studies, India***Food waste-based value-added products and linkages in a circular bioeconomy:
Pitfalls and future directions***Rafael Luque, University of Reggio Calabria***Biowaste valorisation: The waste to wealth concept***Meisam Tabatabaei, Universiti Malaysia Terengganu (UMT)***The Need for Transition Toward Biorefineries: A Narrative based on The Lancet Countdown 2022 Report
On Health And Climate Change***Paschalis Alexandridis, The State University of New York***Valorization of Plastic Waste: Research Advances in Molecular Recycling***Giuseppe Mancini, University of Catania***Waste-Water-Energy nexus: a feasible, sustainable approach in climate-change affected
Mediterranean regions***Marco J. Castaldi, City University of New York***Life cycle and experimental assessment of sustainable thermal processing of waste plastics*

10.45-11.15



Coffee Break

ROOM 1
SESSION IX
Anaerobic Digestion I
Chair: D. Bolzonella, D. Fino, G. Antonopoulou

11.15-11.30	Jiachen Sun, Le Zhang, Kai-Chee Loh Integrated uses of alkali in lignin-first pretreatment and arrested anaerobic digestion for volatile fatty acids from yard waste
11.30-11.45	T. Agudelo-Patiño, C.A. Cardona Alzate Prefeasibility analysis of different anaerobic digestion upgrading pathways using organic kitchen food waste as raw material
11.45-12.00	A. Maragkaki, N. Papastefanakis, G. Daskalakis, N. Markakis, E. Michalodimitraki, E. Stafilarakis, C. Tsompanidis, T. Manios Solid anaerobic digestion of pig manure with dry and fresh food waste
12.00-12.15	F. Fazzino, A. Pedullà, A. Gelsomino, M. Pittarello, P. S. Calabrò Effects of carbon-based materials on the anaerobic co-digestion of the organic fraction of municipal solid waste and thickened sludge: preliminary result
12.15-12.30	F. Demichelis, F. Deorsola, E. Robotti, T. Tommasi, D. Fino Technical, environmental, and economic evaluation of semi-continuous anaerobic digestion of pre-treated organic fraction municipal solid waste: effect of the organic loading rate on process performance
12.30-12.45	J. Bu, Y.W. Tong Improving anaerobic fermentative performance of food waste by Fe-modified biochar: FeBC synthesis and application in fermentation system
12.45-13.00	P. Stamatopoulou, M. Scarborough Medium Chain Carboxylic Acids Production from Food Waste
13.00-13.15	R.P. Ipiales, A.F. Mohedano, G. Lelli, A. Sarrion, E. Díaz, E. Díaz-Portuondo, M.A. de la Rubia Valorization of process water from hydrothermal carbonization of biomass waste by UASB reactors
13.15-13.30	N. Anusree, P. Sughosh, G. L. Sivakumar Babu Closed landfill as an Anaerobic digester for treating young landfill leachate: Laboratory study
13.30-13.45	S. Tisocco, P. Crosson, X. Zhan Integration of anaerobic co-digestion into a sustainable livestock farming system

13.35-14.00	I. A. Fotidis, Y. Yan, N.I. Kallikazarou, T. Kotsopoulos, M.G. Antoniou Biogas and struvite production from animal slurry in a novel pilot-scale reactor
14.00-14.15	M. Casallas-Ojeda, I. Cabeza, M. Cobo, D. M. Caicedo-Concha, S. Astals Influence of the addition of dairy cow manure as cosubstrate during the energetic valorization of cheese whey by psychrophilic anaerobic digestion
14.15-14.30	A. Rizzetto, S. Bensaid, R. Pirone, M. Piumetti Study of ceria-based materials for CO ₂ capture and their functionalization with ruthenium for methane production
14.30-14.45	A. Rajpal, V. Kumar Tyagi, P. Kumar Mutiyar, A. Ahmad Kazmi Evaluation of sewage sludge quality and sludge treatment technologies for the reutilization potential in India
14.45-15.00	K. Chelvam, M.M. Hanafiah Environmental Performance of Hydrogen Production from Industrial Waste: Towards Circular Economy
14.15-15.00	Lunch Break

ROOM 2 SESSION X

Agricultural Waste Management, Aerobic Treatment Chair: N. Tzortzakis, A. Witek-Krowiak, P. Rusek

11.15-11.30	Yiying Wang, Chi-Hwa Wang Plantation of sunflowers in elevated carbon dioxide concentration by the addition of biochar
11.30-11.45	H. Stiborova, M. Kracmarova, A. Kodatova, E. Alexova, J. Szakova, P. Tlustos, F. Mercl, K. Demnerova Evaluation of the effect of different soil amendment additions on changes in the soil ecosystem
11.45-12.00	Ana and Vlade Divac Foundation Survey on behavior of plant protection product users in the Republic of Serbia
12.00-12.15	K. Bampalioutas, D. Tsivas, L. Karaoglanoglou, A. Vlysidis Techno-economic assessment of an olive mill waste biorefinery at different scales
12.15-12.30	A. Lagiou, D. Papanikolaou Animal byproducts management in poultry slaughterhouses

12.30-12.45	N. Tzortzakis, C. Goumenos, P. Xylia, A. Chrysargyris Exploring Medicinal and Aromatic Plant residues after distillation as a peat substitute component in growing media for <i>Sonchus oleraceae</i> production
12.45-13.00	A. Hanc, B. Dume, P. Michal, T. Hrebeckova The fate of selected pharmaceutical residues during composting of sewage sludge
13.00-13.15	D. Bosilj, I. Petrovic, N. Hrcic, N. Kaniski Duration of the biodrying process as a function of the initial moisture content of municipal solid waste
13.15-13.30	U. Ryszko, K. Borowik, P. Rusek, D. Kołodyńska Removal of Cd(II) ions from industrial wet phosphoric acid on strongly acidic cation exchangers
13.30-13.45	K. Borowik, P. Rusek, A. Bińczak, U. Ryszko Removing of cadmium ions from wet-process phosphoric acid using precipitation methods
13.45-14.00	P. Rusek, K. Borowik, S. Schab, Ł. Rusek, U. Ryszko Technology of obtaining mineral fertilizers with a controlled release rate (CRF) by the coating methods using biodegradable materials
14.00-14.15	S. Schab, P. Rusek Method and plant for continuous production of granular USP nitrogen and phosphate type fertilizers and products on their basis
14.15-14.30	M. Mercurio, G. Costa, C. Potena, D. Broglio Montani, A. Carrera, F. Lombardi Comparative Life Cycle Assessment of two different technologies for converting the organic fraction of MSW into compost
14.30-14.45	F.Z. Mesrar, H. Tachallait, K. Bougrin, R. Benhida Sustainable Dyeing of Wool with Agricultural Waste as Natural Dyes
14.45-15.00	N. Solomakou, A. Kyriakoudi, E. Kalfa, K. Kaderides, I. Mourtzinis, A.M. Goula An holistic approach for the valorization of pomegranate by-products using green methods

ROOM 3
SESSION XI
Waste Valorisation I
Chair: S. Smith, P. Alexandridis, M. Piumetti

11.15-11.30	P. Delgado-Plana, S. Bueno-Rodríguez, L. Pérez-Villarejo, D. Eliche-Quesada One-part geopolymers from spent filtering earths using alternative activators from waste glass. An example of circular economy
11.30-11.45	A. Fresneda-Cruz, G. Murillo, C. González-Niño, I. Julian Microwave-assisted valorisation of unsortable thermoplastic waste
11.45-12.00	N. Striūgas, K. Zakarauskas, J. Eimontas, A. Jančauskas On the gasification of end-of-life plastic waste in an air/oxygen/steam atmosphere
12.00-12.15	L. Liang, G. Lisak Effects of plastic-derived carbon dots on germination and growth of pea (<i>Pisum sativum</i>) via seed nano-priming
12.15-12.30	Crystal C. Y. Ling, Sam F. Y. Li Synergistic Interactions between Sewage Sludge and Plastics during Co-pyrolysis
12.30-12.45	F. Barracco, E. Parisi, G. Pipitone, E. Simone, S. Bensaid, D. Fino Valorisation of char derived from industrial pyrolysis of mixed plastic waste through methylene blue adsorption
12.45-13.00	J. Lacuesta, N. Tancredi, S. Gutiérrez Valorization of rice husk chars as adsorbent: characterization and utilization in a novel reactor operating mode
13.00-13.15	T. Sapmaz, R. Manafi, A. Mahboubi, D. Lorick, D.Y. Koseoglu-Imer, M. Taherzadeh Application of food waste-derived volatile fatty acids as alternative carbon source for post-denitrification process in municipal wastewater treatment
13.15-13.30	C. Anagnostopoulou, I. Papachristou, K.N. Kontogiannopoulos, P.G. Kougias Food industry wastewater valorization for microalgae cultivation in microplates
13.30-13.45	B. Singla, P.M. Binder, N. Guerra, L. Díaz-Guerra, R. Vilaplana, A.A Robles, N. Frison, L. Llenas, E. Meers Assessing phosphorus recovery potential from ashes: incubation studies of different secondary raw materials after multiple combustion processes

13.45-14.00	N. Kamariah, K. Binnemans, J. Spooren Exploring the Potential Use of Monoethanolamine-Based Lixiviants for Lead Extraction from Zinc Calcine and Zinc Leaching Residue
14.00-14.15	M. Zouari, L. Marrot, D. B. Devallance From misused feedstocks to valuable air purification materials
14.15-14.30	O. Okoligwe, T. Radu, M. Leaper, J.L. Wagner Valorisation of hydrothermal liquefaction aqueous phase: Process modelling to quantify net energy recovery
14.30-14.45	S. Nishad, I. Krupa Recycled Tetra Pak-based PCMs for enhanced photothermal conversion and thermal energy storage
14.45-15.00	Barun Kanoo, Anurag Garg Characterization of the hydrochar and process wastewater recovered after hydrothermal pretreatment of diaper waste

ROOM 4**SESSION XII****LIFE CO₂toCH₄ Launching Event****Chair: A. Antoniadis, P. Kougias, A. Zouboulis, M. Loizidou**

11.15-11.30	M. Loizidou What is the concept of modern biorefineries? How we will move fast towards 4 th generation biofuels, supporting EU policies?
11.30-11.45	A. Antoniadis What are the main objectives and the scope of the project CO ₂ toCH ₄ ? Which are the main activities of PPCR and how are they associated with the project?
11.45-12.00	C. Roumpos Why CO ₂ toCH ₄ LIFE program is important for PPC?, How is this program associated with the production of CO ₂ ?
12.00-12.20	A. Zouboulis What are the main CO ₂ capture technologies? How can membrane separation be applied for separating CO ₂ from flue gases?

12.20-12.40	P. Kougias What is the biological CO hydrogenation technology? Where can this technology be applied? What we have been taught from the first year of reactor operation?
12.40-13.00	L. Treu What is microbial resource management? How can we optimize the process by applying microbial resource management?
13.15-14.00	P. Papazoglou The Horizon Europe R&I Framework Programme, with Focus on its WIDERA Schemes (General Introduction & Structure, Funding Mechanisms & Partner Search, Proposal Preparation Tips)

ROOM 1

SESSION XIII

Anaerobic Digestion II

Chair: P. G. Kougias, C. Eskicioglu, M.C. Zanetti

15.00-15.15	C. Koutsiantzi, P. Gkotsis, A. Zouboulis, A. Liatsou, E.S. Kikkinides Upgrading biogas produced via anaerobic digestion from municipal waste into biomethane by 2-stage membrane separation in pilot-scale conditions
15.15-15.30	D. Hidalgo, E. Pérez-Zapatero, J.M. Martín-Marroquín Comparative effect of acid and heat inoculum pretreatment on dark fermentative biohydrogen production
15.30-15.45	E. Roslan, J.A. Magdalena, H. Mohamed, A. Akhiar, A.H. Shamsuddin, H. Carrere, E. Trably Coupling lactic acid fermentation and dark fermentation of food waste for biohydrogen production
15.45-16.00	D. Bertasini, D. Bolzonella, N. Frison, F. Battista Valorisation of Agricultural residues to produce H ₂ through Two Stage Anaerobic Digestion process
16.00-16.15	N. Ntavos, E. Papista, A. Lampropoulos, G. Varvoutis, Y. Fallas, E. Terzis, M. Zhurka, C. Tsompanidis, T. Douskas, K. Tsiptsias, A. Grigoropoulos, G.E. Marnellos Valorization of urban sewage sludge and used cooking oils into bio-H ₂ or bio-methane alternative transport fuels for municipal garbage trucks
16.15-16.30	C. Nikolaidou, M. Mola, M. Gaspari, N. Monokrousos, V. G. Aschonitis, P.G. Kougias The effect of digestate on indigenous soil microbial communities and mesofauna diversity and activity

16.30-16.45	D. Hidalgo, E. Pérez-Zapatero, J.M. Martín-Marroquín Enhanced biohydrogen production by dark fermentation using additives
16.45-17.00	A. Cerutti, G. Campo, M.C. Zanetti, G. Scibilia, B. Ruffino Improving hydrogen biomethanation in a CSTR reactor fed with primary sludge: (preliminary) results of a pilot-scale test
17.00-17.15	P. Postacchini, A. Grimalt-Alemany, P. Ghofrani-Isfahani, L. Menin, I. Angelidaki, F. Patuzzi, M. Baratieri Syngas co-digestion with manure: kinetic modelling in a novel framework
17.15-17.30	V. Kumar, C. Eskicioglu Novel bioaugmentation strategy with a syntrophic enrichment for enhanced digestion (SEED) system for maximizing methane yield from municipal sludge
17.30-17.45	J. Meng, S. Wang, X. Zhan Integration of anaerobic digestion and electrodialysis for methane yield promotion and ammonium in-situ recovery
17.45-18.00	M. Żubrowska-Sudoł, K. Sytek-Szmeichel, J. Walczak, A. Garlicka, K. Umiejewska Analysis of possibilities of obtaining positive energy balance in anaerobic digestion systems with hydrodynamic disintegration
18.00-18.15	M. Adghim, M. Sartaj, N. Abdehagh Comparing the performance of common ammonia stripping configurations for enhancing the biogas potential of poultry manure
18.15-18.30	F. Lombardi, L. Bartolucci, S. Cordiner, V. Mulone, D. Sorino Numerical analysis to predict bioplastic biodegradation with FORSU in an integrated anaerobic and composting process
18.30-18.45	G.-C. Mitraka, K.N. Kontogiannopoulos, A.I. Zouboulis, P.G. Kougias Evaluation of the optimal sewage sludge pre-treatment technology through lab-scale CSTRs – Performance and reliability assessment prior to pilot implementation
18.45-19.00	M.A. Tsitsimpikou, S.D. Kalamaras, C.A. Tzenos, T.A. Kotsopoulos Autonomous system for remote control of anaerobic CSTR reactors
19.00-19.15	O. Sengur, D. Akgul, A. Bayrakdar, B. Calli Effects of vacuum treatment on anaerobic digestion of chicken manure digestate
19.15-19.30	I. Kontodimos, C.E. Papadelis, N. Margaritis, P. Grammelis Valorization of medical plants residues through anaerobic digestion

ROOM 2
SESSION XIV
Food Waste Management
Chair: A. Zorpas, D. Malamis, A. Djukic-Vukovic

15.00-15.15	K.E. Lasaridi, C. Chroni, K. Abeliotis, C. Cicatiello, C. Strotmann, S. Zurbuchen, K. Boikou Investigating food waste generation and prevention in Greek hotels using an AI technology innovation
15.15-15.30	K. Synani, E. Sigala, C. Chroni, K. Abeliotis, K. Lasaridi Life cycle assessment of selected edible parts of discarded food in Greek households
15.30-15.45	G. Montevercchi, L. Miron, A. Aragón Gutiérrez, L.I. Macavei, G. Benassi, E. Zanelli, Luke Mizzi, S. D'Arco, P. Albaladejo Sánchez, G. Bruggeman, M. Thomas, L. Maistrello, A. Antonelli The black soldier fly (<i>Hermetia illucens</i> L.) strategy within "SCALIBUR – Scalable technologies for bio-urban waste recovery" H2020 project
15.45-16.00	V. Savary, S. Costa, M. Donner, C. Duquennoi New circular business models for urban solid biowaste valorisation
16.00-16.15	A. Kunszabó, G. Kasza, D. Szakos, J. Oláh, J. Popp, Z. Lakner, A. Dorkó, M. Süth Possibilities to reduce household food waste based on consumers' opinions in the light of the SDGs
16.15-16.30	Al. Kavrakos, C. Kypraios, M. Kavrakos System development for the separate collection of biowaste and waste producer identification services for the purpose of producing soil conditioners
16.30-16.45	S. Pradhan, H. R. Mackey, T. A. Al-Ansari, G. McKay Application of pistachio shell biochar with organic cow manure for sustainable agriculture practice
16.45-17.00	D. San Martin, J. Ibarruri, A. Garcia-Rodriguez, I. Goiri, R. Atxaerandio, A. Uribesalgo, J. Zufía, E. Sáez de Cámara, B. Iñarra Biorefinery of coffee by-products to obtain a feed ingredient and briquettes as energy source
17.00-17.15	M. Wzorek, E. Yilmaz, R. Junga, H. Unyay, S. Szufa Pretreatment of spent coffee grounds for biofuels production
17.15-17.30	N. Solomakou, A. Drosaki, M. Jonuzi, A.M. Goula Improving the recovery of phenolic compounds recovery from olive mill wastewater by using activated spent coffee grounds

17.30-17.45	S. Christaki, N. Solomakou, A. Kyriakoudi, K. Kaderides, A.M. Goula, I. Mourtzinou Valorization of peach (<i>Prunus persica</i> L.) by-products using green methods
17.45-18.00	D. San Martin, J. Ibarruri, N. Luengo, J. Ferrer, A. Garcia-Rodriguez, I. Goiri, R. Atxaerandio, J. Zufía, E. Sáez de Cámara, B. Iñarra Biorefinery of grape stem to obtain a sugar-rich liquor for food applications and an ingredient for animal feed
18.00-18.15	M.A. Suárez, E. Gambuzzi, E. Vogiatzidaki, E. Skourtanioti Urban biowaste valorisation – What is the menu? The H2020 HOOP project's state-of-the-art
18.15-18.30	F. Chatzimaliakas, D. Christianides, D. Malamis, E.M. Barampouti, S. Mai Turning urban biowaste in bioethanol in pilot scale
18.30-18.45	D. Āriņa, I. Teibe, R. Bendere, L. Jākobsone The household bio-waste management: a case study of Latvia
18.45-19.00	K. Koutsoumanis, O. Misiou Climate change is expected to increase food waste due to spoilage of non-refrigerated foods: Use of risk assessment to identify mitigation strategies
19.00-19.15	A. Sarrion, J.R.V. Flora, R. Goel, L. Liu, E. Diaz, A.F. Mohedano, N.D. Berge Hydrothermal Carbonization of food waste: Influence of food waste composition and carbonization conditions on hydrochar for application in soils
19.15-19.30	K.K. Razman, M.M. Hanafiah Environmental Performance of Waste-to-Energy in Promoting Sustainable Food Waste Management

ROOM 3
SESSION XV
Waste Valorization II
Chair: K. Moustakas, C. Dias-Ferreira, N. Frison

15.00-15.15	G. Pesante, N. Frison Fish feed production from pure culture PHA-rich microbial proteins obtained from agricultural residues
15.15-15.30	L. Lorini, L. Giordani, L. Gianni, B. Matturro, M. Petrangeli Papini A Sustainable Approach For TCE Contaminated Groundwater Remediation: Polyhydroxyalkanoates (PHA) from waste as Electron Donor for biological reductive dechlorination
15.30-15.45	Jiachen Sun, Kai-Chee Loh Lignin valorization to polyhydroxyalkanoates assisted by adding volatile fatty acids
15.45-16.00	H. Pérez-Aguilar, M. Lacruz-Asaro, F. Arán-Ais Protein recovery from animal by-products in tannery and rendering industries for biostimulant applications in agriculture
16.00-16.15	A. Maragkaki, F. Galliou, E. Diafonidi, K. Kalaitzaki, N. Bounakis, T. Manios System Development for the Collection and Transport of Agricultural and Agro-Industrial Residues for Animal Feed Production
16.15-16.30	K. Chojnacka, M. Samoraj Anaerobic Digestate-Based Fertilizers in Agriculture: Benefits, Limitations, and Future Prospects - A Comprehensive Review
16.30-16.45	F.B. Dilek, E. M. Barampouti, S. Mai, K. Moustakas, D. Malamis, D.S. Martin, U. Yetis Environmental Sustainability Assessment of Valorizing Orange Peels Waste in Animal Feed Production
16.45-17.00	A. D. Zentelis, N. Kotrotsos, D. P. Zagklis, V. Sygouni, F. N. Lamari, C.A. Paraskeva Isolation of high-added-value products from grape marc of the plant <i>Vitis vinifera</i> L.
17.00-17.15	J. P. Souza, H. M. Fogarin, S. G. C. Almeida, B. C. S. Santos, D. D. V. Silva, K. J. Dussán Co-production of ethanol and xylitol from sugarcane hemicellulose hydrolysate by yeasts isolated from the Atlantic Forest and the Brazilian Amazon Forest
17.15-17.30	H. A. F. Rahmy, S. Nour El-Deen, F. Mohamed Abosamra, A. Saied Mohamed Korayem Fermentation strategies for the valorizations of Olive cake to improve their nutritional value in Broiler's feeds

17.30-17.45	S.G.C. Almeida, J. P. Souza, H.M. Fogarin, B. V. Franca, K J. Dussán Growth characterization of adapted <i>Rhodospiridium toruloides</i> in sugarcane biomass hemicellulosic hydrolysate
17.45-18.00	E. Rrucaj, G. Ferrari, G. Pataro Optimization of Pulsed Electric Fields-Assisted Extraction of phenolic compounds from sweet cherry press cake using Response Surface Methodology
18.00-18.15	C. Bald, M. Lavilla, C. Abaroa, X. Aboitiz, G. Díez, B. Iñarra Inactivation of <i>Anisakis simplex</i> in hake viscera by acid autolysis
18.15-18.30	C.E. Orrego Alzate, S.L. Murillo-Franco, J.D. Galvis-Nieto Açaí seeds as a source of prebiotics (mannan oligosaccharides)
18.30-18.45	A. Zamboi, S. Fraterrigo Garofalo, T. Tommasi, D. Fino Optimization of Ultrasounds Assisted Extraction of pectin from cladodes of <i>Opuntia ficus-indica</i> (L.) Mill using Response Surface Methodology
18.45-19.00	N.P. Arias, J.J Hoyos-Sebá, J. Hernández-Ruydiaz, J. Salcedo-Mendoza, C.A Cardona Nonconventional characterization of cow manure: Electrical Impedance Spectroscopy and X-Ray diffraction analysis
19.00-19.15	A. Bounaga, M. Danouche, R. Boulif, R. Benhida, Y. Zeroual, K. Lyamlouli Microbial transformations by sulfur bacteria can recover value from Phosphogypsum: Sulfate bio-reduction from phosphogypsum leachates and sulfur biorecovery
19.15-19.30	R.P. Ipiates, A. Sarrion, E. Díaz, E. Díaz-Portuondo, M.A. de la Rubia, A.F. Mohedano Scale-up the production of swine manure hydrochar in a continuous pilot plant

ROOM 4
SESSION XVI
LIFE Networking Session
Chair: N. Psimmenos, S. Papageorgiou

15.00-15.20

1st part – LIFE Programme

G. Protopapas, National Contact Point Environment, Director Green Fund
 N. Psimmenos, Climate Change officer, Greek Life Task Force plus, Green Fund

- The Life Programme and the 4 sub-programmes
- 2023 LIFE Programme Call

15.20-15.30

Concluding remarks / questions and answers

15.30-16.30

2nd Part - Industry & circular economy round table

Moderation: Sophia Papageorgiou, LIFE Program External Monitoring Team, ELMEN EEIG & Indicative LIFE projects present their contribution to the implementation of the European Circular Economy Policy. Discussion about the direct impact of the actions on the environment and the economy, the experience of the stakeholders from the implementation of the projects, faced challenges and mainly, created, opportunities

K. Lasaridi, Professor, Harokopio University

LIFE IP CEI Greece – Circular Economy Implementation in Greece & Waste Prevention actions for the priority streams of WEEE and food waste, in the LIFE REWEEE and LIFE IP CEI Greece projects

J. Constantinidou, Senior Environment Officer, Department of Environment, Ministry of Agriculture, Rural Development and Environment of Cyprus, LIFE IP Cyprus, LIFE IP CYZERO WASTE

M. Loizidou, NTUA Professor, Water Circular Economy
 LIFE SOL-BRINE & LIFE BRINE-MINING

P. Gikas, Professor, School of Chemical and Environmental Engineering, Technical University of Crete
 LIFE B2E4Sustainable WWTP

F. Corona, Foundation CARTIF

Low energy treatment technology for leachate valorization - LIFE LEACHLESS

M. Kyriazi, Senior Engineer, UEST-NTUA

Demonstration of an innovative method for the detoxification of pharmaceutical wastewater from pharmaceutical facilities - LIFE PHARMA-DETOX

Concluding remarks / questions and answers

16.30-17.30

3rd Part – Agriculture – Circular Economy & Climate Change

Moderation: Sophia Papageorgiou, LIFE Program External Monitoring Team, ELMEN EEIG & Nikos Psimmenos, Green Fund

Presentation of good practices on circular economy and climate change from beneficiaries, having implemented projects in the agricultural sector

N. Kourgialas, Associate Researcher - Institute of Olive Tree, Subtropical Crops & Viticulture (IOSV) / ELGO DIMITRA, Head - Water Resources, Irrigation & Env. Geoinformatics Lab

Good Agricultural Practices as a Result of Applied Research to Ensure Sustainable Agriculture and Adaptation to Climate Change Through Efficient Water Use

Thr. Manios, Professor, Department of Agriculture, Hellenic Mediterranean University

LIFE -Food for Feed: An Innovative Process for Transforming Hotels Food Wastes into Animal Feed

S. Sotiraki, DVM, PhD, EBVS European Specialist in Veterinary Parasitology, Research Director ELGO-DIMITRA, Coordinator LIFE MiCliFeed

Feeding Ruminants against Climatic Change – LIFE MiCliFeed

I. Spanos Ioannis, Chemical Engineer NTUA, TERRA NOVA Ltd.

Integrating the circularity of waste in the primary sector: synergies between LIFE IP CEI and LIFE MiCliFeed

D. Malamis, Senior Researcher, NTUA

A circular economy system for multi-source biomass conversion to added value products - LIFE CIRCforBIO project

Concluding remarks / questions and answers

17.30-18.00

Networking between the participants of the Session

ROOM 1
SESSION XVII
Waste-to-Energy & Energy from Waste II
Chair: M. Loizidou, M. Baratieri, M. Castaldi, E. Voutsas, C.S. Psomopoulos

8.45-9.00	K. Kalkanis, A. Bourtsalas, C. Chroni, N.J. Themelis, C.S. Psomopoulos Waste-to-Energy global status. Technologies and perspectives in times of transition and climate crisis
9.00-9.15	G. Mancini, L. Lombardi, A. Luciano, D. Bolzonella, L. Gurreri, D. Fino Waste-Water-Energy nexus: a feasible, sustainable approach in climate-change affected Mediterranean regions
9.15-9.30	D. Panepinto, MC. Zanetti Municipal Solid Waste thermal treatment – An overview on the environmental aspects
9.30-9.45	L. Cretarola, G. Mazzolari, E. De Lena, M. Spinelli, M. Gatti, F. Viganò Carbon capture for Energy-from-Waste plants: comparison of three applicable technologies
9.45-10.00	N. D. Williams, B. M. Williams, J. Ballard, K. D. Farris Selection of waste to energy technology for a demonstration project
10.00-10.15	W. Meynendonckx, M. Ishteva, J. De Greef Controllability of HCl and SO ₂ release in a grate-fired Waste-to-Energy furnace
10.15-10.30	D. Liakos, G. Altiparmaki, K. Moustakas, S. Malamis, S. Vakalis Assessing the products and thermodynamic transitions of hydrothermal treatment of anaerobic sludge
10.30-10.45	D. Antolini, F. Patuzzi, M. Baratieri Experiences on fuel flexibility of small-scale biomass gasification systems
10.45-11.00	M. C. Garcia-Vallejo, C. A. Cardona Alzate Prefeasibility analysis of biomass gasification and electrolysis for hydrogen production
11.00-11.15	R. Borooah, F. Patuzzi, M. Baratieri Modeling gasification of forest residues using deep learning algorithms
11.15-11.30	I. Adeyemi, M. Badawi, H. Khan, I. Janajreh Entrained Flow Gasification of Solid Waste and Coal Mixture
11.30-11.45	R. Pan, G. Debenest Optimal conditions determination for plastic wastes valorization using pyrolysis in a semi batch reactor
11.45-12.00	V.E. Messerle, A.B. Ustimenko, O.A. Lavrichshev, M.N. Orynbasar Plasma processing of waste from the woodworking industry: numerical analysis and experiment

12.00-12.15	J. Eimontas, N. Striūgas, K. Zakarauskas, A. Jančauskas, L. Vorotinskienė Catalytical seaweed pyrolysis over ZSM-5 and Y-Type catalysts under the different temperature for the gathered products analysis
12.15-12.30	M. Alonso, B. Ledesma, M. Olivares, S. Román In-situ capture of degradation HTC products. Influence on hydrochar properties
12.30-12.45	D. Liakos, L. Chrysikou, S. Tzouratzoglou, V.M. Vasdekis, S. Bezergianni Catering wastes conversion to bio-crude oil via hydrothermal liquefaction
12.45-13.00	N. D. Williams, B. Max Williams, J. Ballard, K. D. Farris Evaluation of higher heating value of RDF for waste to energy facilities
13.00-13.15	K. Tsimaras An approach on the potential of implementation of Hydrogen technologies and its utilisation
13.15-13.30	C. Keumala Banaget, G. Reza Check, I. A. Watson Combustion kinetics of char product derived from torrefaction of Miscanthus pellets with different operational conditions
13.30-13.45	A. Dimitriadis, S. Bezergianni, N. Tourlakidis, G. Meletidis Engine fuels production via hydrotreatment of hydrothermal liquefaction biocrude oil and pyrolysis bio-oil
13.45-14.00	M. Zeppilli, L. Cristiani, C. Marandola, M. Villano Microbial Electrolysis Cell (MEC) for biofuel production from organic waste
14.00-14.15	V. Benedetti, L. Menin, S. Piazzzi, D. Antolini, M. Kollmer, F. Patuzzi, M. Baratieri Thermal energy, fillers and pigments from wood packaging waste
14.15-14.30	J. Čespiva, J. Skřinský Production efficiency and safety assessment of the solid waste-derived liquid hydrocarbons
14.30-14.45	Shekhar Jyoti Pathak, Prabu V. Thermal treatment of the High ash Coal with Electronic Waste plastics and characterization of the co-liquefied oil
14.45-15.00	R. Vilasrao Mankhair, M. K. Chandel Characterization of combustible fraction of legacy waste: exploring the impact of landfill depth and quantifying energy recovery potential
14.15-15.00	Lunch Break

ROOM 2

SESSION XVIII

The H2020 WaysTUP! project

Chair: A. Milukas, M. Tsantakis, M. Loizidou

9.00-9.15	Representative of the WaysTUP! Project, Representative of the Organising Committee of CHANIA 2023 Welcome
9.15-9.30	A. Milukas - Head of Unit B3 "Biodiversity, Circular Economy and Environment" at the European Research Executive Agency EU funding opportunities for the bioeconomy
9.30-9.45	F. Ample The WaysTUP! Project (the project scope, partners, and journey)
9.45-10.00	A. Xirou Assessment of European biowaste management V. Mañez The role of biowaste in the circular economy
10.00-10.30	M. Lattore The URBIOFIN Project - Demonstration of an integrated innovative biorefinery for the transformation of Municipal Solid Waste (MSW) into new BioBased products D. Malamis The CIRCforBIO Project - A circular economy system for multi-source biomass conversion to added value products. M. Angel The HOOP project - Vitalise Europe's Urban Bioeconomy
10.30-11.30	F. Ample, S. Mai, E. Barampouti, M. Lattore, M. Lilli, N. Nikolaidis, G. Anzelmo, S. Rojo End products and new value chains from urban biowaste (Brief pilots' presentation)
11.30-12.00	 Coffee Break
12.00-12.15	S. Mai, E. Barampouti WaysTUP! Learning Workshop: Sharing lessons learnt of the NTUA pilot
12.15-12.45	Learning Workshop Open Discussion
12.45-13.00	A. Sotiropoulos The WaysTUP! EU level policy recommendations

13.00-13.15	C. Papadaskalopoulou Environmental assessment of innovative value chains for biowaste valorization
13.15-13.30	J. Mastilovic WaysTUP! ways towards commercialization
13.30-13.45	L. Temmerman A behavioral change approach for the collection of urban biowaste and usage of biowaste derived products with citizens and communities
13.45-14.15	Bioeconomy, the cities' experience in waste management N. Maneta The experience in Athens' municipalities G. Sanchez The Barcelona Metropolitan Area experience

ROOM 3
SESSION XIX

Recycling & Resource Recovery
Chair: P. Champagne, J. Dosta, F. Battista, S. Mai

9.00-9.15	J. Almeida, C. Pires, A.B. Ribeiro Electrodialytic recovery of lithium from secondary mining resources with lepidolite
9.15-9.30	J. Ait Brahim, A. Merroune, R. Boulif, R. Beniazza Recycling of phosphogypsum: Recovery of rare earth elements and production of high-added value products
9.30-9.45	D. Fila, D. Kołodynska, Z. Hubicki An efficient and renewable natural bead-type adsorbent for critical raw material recovery
9.45-10.00	S. R. Yashas, E. B. Ruck, Y. Gendel Capacitive-faradaic fuel cells: a novel method for recovery of metals from end-of-life photovoltaic panels
10.00-10.15	M.A. Al-Ghouti, M. Khan Microwave-assisted leaching technique as a novel technique for metal recovery from municipal solid waste (bottom and fly ashes)

10.15-10.30	T. Neves, V. Sousa, J.A. Bogas, A. Carriço Carbon emissions from producing an eco-clinker from concrete waste
10.30-10.45	S.K. Antiohos, J. Marinos, K. Xynou, P. Megagianni, P. Papadeas Recycling index determination for SRF co-processed in the cement industry
10.45-11.00	Ch. Kouris Utilization of secondary raw materials and fuels in the cement industry: The road to net zero
11.00-11.15	P. Fröhlich, L. Blaesing, M. Bertau Approaches for chromium recovery from leather processing residues
11.15-11.30	P. Guedes, E. P. Mateus, A. N. Alshawabkeh, A. B. Ribeiro Assessment of the ultrasound assisted electrodialytic separation of cobalt from tungsten carbide scrap powder
11.30-11.45	L.M Ottosen, N.M. Sigvardsen Cr leaching from wood fly ashes before and after hydration/carbonation
11.45-12.00	A.K. Ram, S. Mohanty Assessment of engineering behaviour of coal ash for wider application in Civil engineering
12.00-12.15	Chang Hua Hsieh, Minh Man Trinh, Yi Fu Chen, Jyun Jie Liao, Moo Been Chang Effectiveness of Applying Sewage Sludge to Inhibit PCDD/F Formation in Thermal Treatment of Fly Ash
12.15-12.30	S. Plakantonaki, N. Zacharopoulos, K. Kiskira, I. Chronis, V. Belessi, D. Bilalis, G. Priniotakis Valorisation of industrial food waste to produce pulp for the textile industry
12.30-12.45	S. Sehnemt, G. Airton da Silveira, P. Veiga Desmaterialization: looking for the system and implications for sustainability
12.45-13.00	H. Zhang, W.T. Chen, Y.S. Pei Preparation of one-part geopolymers for heavy metal immobilization from waste leachate concentrate
13.00-13.15	M. Kraft, P. Fröhlich, M. Bertau Brick-based geopolymer building materials - 100 % secondary raw material based and recyclable
13.15-13.30	M. Novotný, M. Marković, J. Raček, M. Šipka, T. Chorazy, P. Hlavínek Effect of recycled organic materials on the substrate properties of green roofs: A field study
13.30-13.45	A. Fresneda-Cruz, J. Castillo, G. Murillo-Ciordia, I. Lanz, M. Blecua, M. Figueirêdo, I. Julián Microwave-assisted recycling of wind blade waste for glass fibers recovery and resin valorisation

13.45-14.00	G. Hafner Method development for the provision of basic data for material and substance flow analyses in solid waste management
14.00-14.15	Shuhan Liu, Chengxuan Xin, Xiaonan Tang, Jianli Hao Zero waste and pro-environmental behaviour at campus level: A study of college students' attitudes and behaviours in Suzhou
14.15-14.30	Hongtao Zhang, K. El Kadi, I. Janajreh Eutectic Freezing for Multiple Salt Recovery – A Sustainable Brine Management Approach
14.30-14.45	C. Hoffmann Sampaio, B. Grigore Cazacliu, W. Monteiro Ambrós, M. André Kronbauer, R. M. C. Tubino, D. C. C. Dal Molin, J. Oliva Moncunill, G. L. Miltzarek, R. P. Waskow, Viviane L. G. dos Santos, J. Luis Cortina Recycling of demolished concretes as coarse aggregate
14.45-15.00	Ankush Halba, Gayatri Gawande, Pratham Arora Optimization of a Decentralized Pine Needles-to-Electricity Supply Chain for Almora District of Uttarakhand, India

ROOM 4**VIRTUAL
SESSION XX****WASTE VALORIZATION III****Chair: S. Fiore, T.Y. Wu, M. Kumar Awasthi, G. Labuto, C.T. Lee**

8.00-8.15	Thanh-Khiet L. Bui, Kieu Lan Phuong Nguyen, Tran Thi Mai Phuong, Tran Thi Diem Thuy, Nguyen Van Nghia Daily accumulation of marine litter in clam aquaculture area in Can Gio District, Ho Chi Minh City
8.15-8.30	L. Nastasi, S. Fiore Critical review of sustainable remanufacturing among different sectors
8.30-8.45	S. Gupta, K. K. Pant, G. Corder Selective Recovery of Cobalt from Spent Lithium-Ion Batteries using Green Deep Eutectic Solvent
8.45-9.00	M. Bruno, C. Francia, S. Fiore Preliminary tests aimed at the recycling of Lithium Iron Phosphate (LFP) cathodes
9.00-9.15	P.S.S. Camargo, G. G. O. Torres, J. A. S. Pacheco, M. P. Cenci, H.M. Veit Physical Method for the Recycling of Lithium Iron Phosphate (LFP) Cells

9.15-9.30	A. Paspalas, M. Lasithiotakis, P. Sinioros Characterization and recycling possibilities of hazardous materials from waste management of electrical and electronic medical equipment
9.30-9.45	V. Rahimi, E. Inzulza-Moraga, D. Gómez-Díaz, M.S. Freire, J. González-Álvarez Screening of variables affecting the selective leaching of valuable metals from waste mother boards PCBs
9.45-10.00	I.-Ef. Parigoridi, El. Tsoumani, K. Akrida-Demertzi, P. G. Demertzis Determination of nitrogen-containing organic compounds, found as colorants residues, in commercially available recycled cartons intended for food contact applications
10.00-10.15	L. M. Eraso, O. Cuaspuud, M. Arias Optimization of xylitol production through Candida Tropicalis in xylose hydrolysate from rice husk
10.15-10.30	G. Bonifazi, R. Gasbarrone, R. Palmieri, S. Serranti End-of-life textile characterization by short-wave infrared spectroscopy
10.30-10.45	M. Kucbel, H. Raclavská, J. Růžicková, M. Šafář, B. Švédová, D. Juchelková, K. Slamová Environmental Impact Assessment of the Coal Yard and Ambient Pollution
10.45-11.00	H. Brťková, H. Raclavská, J. Růžicková, M. Šafář, M. Kucbel, D. Juchelková, B. Švédová, K. Slamová Options to reduce the content of microplastics in composts made from urban greenery
11.00-11.15	A. Anic Vucinic, M. Vlačić, I. Presecki Management of food waste on cruise ships
11.15-11.30	A. L. Pereira, M. T. Santos, A. Rodrigues On-campus composting for food waste and garden waste
11.30-11.45	Yu-Fan Zhan, Zhuo-Hao Meng, Shuai You, Lu-Chan Gong, Cgeng-Hai Yan, Jun Wang Synthesis of enzymatically modified isoquercitrin by double enzyme cascade catalysed conversion of mulberry flavonoid glycosides
11.45-12.00	A. Lamarca Urzedo, G. Tuono Martins Xavier, R. da Silva Nunes, P. Sérgio Fadini, W. Alves Carvalho Phosphorus recovery from wastewater using TechPhos® and its potential application as fertilizer
12.00-12.15	M. Daghan Erden, O. Ozcan, N. Ates, N. Uzal The impact of draw solution type on the phosphate recovery from municipal wastewater using forward osmosis

12.15-12.30	M.E. Silva, R. Saetta, R. Raimondo, I.P. Brás Forest waste biomass valorisation: Effect of mixed materials and operational management in the compost quality
12.30-12.45	Fang-Hui Chen, Yu-Lu Yang, Yu-Fan Zhan, Lu-Chan Gong, Cgeng-Hai Yan, Jun Wang Nanoparticles TiO ₂ Promote the Biofilm Formation of Escherichia coli
12.45-13.00	Xuan Zhu, Wen-Xin Zhang, Richard Ansah Herman, Shuai You, Lu-Chan Gong, Jun Wang Construction and immobilization of thermostable protease mutants for juice clarification
13.00-13.15	L. J. Valencia-Hernández, J. E. Wong-Paz, J. A. Ascacio-Valdés, M. L. Chávez-González, C. N. Aguilar Enzymatic treatment for Fungal biodegradation of procyanidins extracted from coffee-pulp waste
13.15-13.30	F. Rizzioli, F. Battista, D. Bolzonella A biorefinery case study based on the valorization of Opuntia Ficus Indica for biofuels and bio-compounds productions
13.30-13.45	M. Cebrián, A. García, P. Jauregi, J. Ibarruri, J. Zufía Improved Biorefinery Scheme for Winery Grape Pomace By-products
13.45-14.00	Zhi-Ang Zhang, Zi-Xuan Yuan, Kamila Tuhong, Lu-Can Gong, Jun Wang Methyl jasmonate modulates metabolism of mulberry leaves: Effects on saccharides and phenols content
14.00-14.15	J. C. Cruz Gómez, D. F. Torres Pazos, M. M. Durán Rincón, J. Salcedo-Mendoza, V. Aristizábal-Marulanda Comparison of processing lines to transform agro-industrial avocado residues into bioproducts and bioenergy
14.15-14.30	J.Y. Méndez-Carmona, K.N. Ramírez-Guzmán, J.A. Ascacio-Valdés, L. Sepulveda, J. Sandoval-Cortés, C.N. Aguilar Evaluation of the pretreatment of tomato waste as support for the recovery of carotenoids through Solid-State Fermentation Assisted Extraction (SSFAE)
14.30-14.45	Cheng-Hai Yan, Yu-Lu Yang, Fang-Hui Chen, Lu-Chan Gong, Jun Wang Enhancement of enzymatic transformation of mulberry flavonoid glycosides by surface display of covalent isopeptide bond
14.45-15.00	Yu Lu, Yi-xin Zhang, Wen-xin Zhang, Xuan Zhu, Fang Zhang, Shuai You, Jun Wang Improving the thermostability of Penicillium amagasakiense glucose oxidase based on molecular modification to replace feeding antibiotics

ROOM 1
SESSION XXI

WASTE VALORIZATION IV

Chair: M. Koutinas, F. Patuzzi, S. Vakalis

15.00-15.15	M. Koutinas, M. Kyriakou, A. Ioannou, M. Christodoulou, V. Fotopoulos Transcriptional responses of <i>Saccharomyces cerevisiae</i> to environmental stresses during bioethanol production using biochar-based biocatalysts
15.15-15.30	M. Roldán, J. Bautista-Giménez, J.R. Vázquez, A. Seco, J. Ribes LIFE Zero Waste Water: exploring the joint management of bio-waste and wastewater
15.30-15.45	I. J. Calle Mendoza, M. A. Gorritty Portillo, N. Ferronato, V. Torretta Non-recyclable cellulosic waste briquettes consumption in Andean areas: assessment of social acceptance and potential applications
15.45-16.00	G. Izydorczyk, K. Trzaska, K. Chojnacka From waste to table: assessing the biological efficacy of fertilizers derived from anaerobic digestate
16.00-16.15	M. Samoraj, K. Trzaska, D. Skrzypczak, K. Chojnacka Conversion technology of anaerobic digestates from biogas plants to fertilizer formulation
16.15-16.30	P. Castellani, N. Ferronato, J. Barbieri, V. Torretta Scaling up sustainable practices. Replicability of waste circular actions from Lacor Hospital to Gulu City (Uganda)
16.30-16.45	G. Noriega-Hevia, A. González-Míguez, A. Mayor, L. Rodríguez-Hernández, C.M. Castro-Barros Smart fertiliser production from nitrogen recovery process
16.45-17.00	A. Witek-Krowiak, D. Lale, K. Mikula, M. Samoraj, K. Chojnacka Development of innovative micronutrient fertilizers by biosorption techniques
17.00-17.15	Yong Wei Tiong, Jie Bu, Pooja Sharma, Yen Wah Tong Closing the circle for urban food waste anaerobic digestion: The use of digestate as fertilizer for tomato plant cultivation
17.15-17.30	L.Tarraran, J. Baker, J. Millard, N. S. Vasile, N.P. Minton, C. F. Pirri, D. Fino, G. Saracco Influence of acetate concentration on acetone production by a modified <i>Acetobacterium woodii</i>
17.30-17.45	A. De Espindola, P. Dutournié, A. Ponche Impact of processing stresses on enzymatic activity of lysozyme

17.45-18.00	Huilin Li, Lisbeth M. Ottosen Electroosmotic dewatering of lake sediments for lakes restoration
18.00-18.15	M.González-Ingelmo, P. Álvarez, M. Granda, V. G. Rocha, Z. González, U. Sierra, A. Mercado, S.Fernandez, R. Menéndez Graphene materials from coke-like wastes as proactive support of nickel-iron electrocatalysts for water splitting
18.15-18.30	F. Corona, S. Sanz-Bedate, E. Pérez-Zapatero, D. Hidalgo, J.M. Martín-Marroquín Nutrient recovery from industrial waste water using microbial fuel cell technologies
18.30-18.45	V. Proskynitopoulou, P. Dimopoulos, A. Vourros, I. Garagounis, S. Lorentzou, K. Plakas, P. Kougias, A. Zouboulis, K.D. Panopoulos Treatment of anaerobically digested pig manure with membrane processes for nutrient recovery and antibiotics removal
18.45-19.00	A. Natsia, H. Papapostolou, A. Papadaki, N. Kopsahelis Developing added-value food products from hempseeds: fractionation, characterization and novel protein-based edible films formation
19.00-19.15	I. Julian, E. Wallin, M. Vendt, L. Ventura, S. Ascaso, R. Fornell, M. Gomez-Perez Techno-economic assessment of Industrial Symbiosis interactions based on Mass Flow Cost Accounting methodology coupled with cost/benefit analysis
19.15-19.30	M.González-Ingelmo, P. Álvarez, M. Granda, V. G. Rocha, Z. González, U. Sierra, A. Mercado, S.Fernandez, R. Menéndez, A. Eizaguerri, M.V. Jiménez, J.J. Pérez Torrente, J. Blasco, G. Subias Sustainable production of graphene-anchored NHC-iridium catalyst for water splitting by using coke-like wastes: Investigation of different chemical synthetic routes
19.30-20.00	Closing Session with the active participation of chair persons – Poster award ceremony – Announcement of the place for the 2024 11th International Conference on Sustainable Solid Waste Management

Friday, 23 June 2023

ROOM 2
SESSION XXII
Marine Litter, Plastics & Bioplastics
Chair: Chr. Argirusis, J. Van Caneghem, E. Barampouti

15.00-15.15	E. Lagkadinou, C. Kontogiorgi Sea cleaning activities and waste management in ports, PPA's case study
15.15-15.30	M. Tsakona, I. Rucevska, B. Wermter Questioning the sustainability of voluntary plastic waste initiatives: the case of Indonesia
15.30-15.45	Y. D. Hernandez-Charpak, A.M. Mozrall, T.A Trabold, C.A. Diaz Biochar as a sustainable alternative to carbon black in agricultural mulch films
15.45-16.00	D. Briassoulis Agricultural plastics as a potential threat of soil pollution by microplastics
16.00-16.15	I. Bernabé, E. Amarilla, L. Calleja, M.U. de la Orden, J. Martínez Urreaga, F.R. Beltrán Effect of accelerated ageing and mechanical recycling on the structure and properties of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) formulations
16.15-16.30	I. Bernabé Vírveda, F.R. Beltrán, M.U. de la Orden, J. Martínez Urreaga Solid-state polymerization on degraded PHBV: A cheap and effective alternative for biopolymer revalorization
16.30-16.45	J.P. Gracia, C.E. Montenegro, A. Espinoza, N. C. Moreno, I.O. Cabeza Extraction and purification of a polyhydroxyalkanoate-type biopolymer obtained from volatile fatty acids of mixed cultures and B. Cepacia
16.45-17.00	E. Syranidou, A. Nicodemou, F. Pyrilli, A. Fountoulakis, N. Kalogerakis, M. Koutinas Exploitation of microbial consortia and mixed cultures with microalgal species for the treatment of bioplastics
17.00-17.15	J. Van Caneghem, A. Versteegen Functional classification and material characterization of plastic packaging in land litter to support effective reduction policies
17.15-17.30	Yiyang Wang, Chi-Hwa Wang Synthesis of carbon nanotube-biochar composites by plastic pyrolysis and biomass gasification
17.30-17.45	R. Tomczak-Wandzel, B. Szatkowska Bioplastics - a new threat or industrial synthesis?

17.45-18.00	H. Stipanovic, G. Koinig, A. Tischberger-Aldrian Method development for fast classification of waste plastic multilayer polyolefin films using near-infrared (NIR) handheld spectrometer
18.00-18.15	D. Alimpoumpa, I. K. Lappa, A. Papadaki, N. Kopsahelis Development of edible films as protective carriers of a novel Lacticaseibacillus paracasei strain isolated from Kefalonian feta-type cheese
18.15-18.30	G. Sourkouni, M. Nenadovic, V. Jankovic, Ch. Kalogirou, O. Höfft, D. Rajasekaran, P. Pandis, R. Padamati, J. Nikodinovic-Runic, Chr. Argiris Valorization of degradation products stemming enzymatic and model-compost degradation of pre-treated PLA by advanced oxidation processes to bacterial nanocellulose
18.30-18.45	U. Bassey, A. Bowles, G. Fowler, A.-O. Tom, G. Beck, S. Narra, M. Nelles, M. Hartmann Experimental investigation of products from thermal treatment of real-world mixed single-use and multilayered waste plastics
18.45-19.00	K. Yapsakli, T. Sari, D. Akgul, B. Mertoglu Long-term effects of microplastics polymers on Anammox process
19.00-19.15	M. Kulp, O.-S. Salm, E. Solomina, T. Lukk Non-destructive spectroscopy combined with chemometrics as a tool for Green Chemical Analysis of lignocellulose
19.15-19.30	I. Papamichael, I. Voukkali, P. Loizia, M. Stylianou, A.A. Zorpas An analysis of consumer behaviour in relation to circular fashion: A Cyprus case study

ROOM 3

SESSION XXIII

Carbon & Water Footprint, Energy Efficiency and Energy Saving Potential in Industry, Hazardous Waste, WEEE**Chair: K. Moustakas, G. Mancini, F. Lombardi**

15.00-15.15	D. Allouss, K. O. Ogoula Igouwe, E. I. Achouri, N. Abatzoglou Cu-loaded biochar derived from pyrolysis of contaminated <i>Panicum virgatum</i> : Encapsulation and Use for the removal of phenolic compounds from wastewater
15.15-15.30	P. Izak, M. Z. Ahmad, V. Fila CO ₂ separation of fluorinated 6FDA-based polyimides, performance- improved ZIFincorporated mixed matrix membranes and gas permeability model evaluations
15.30-15.45	T. Abichou, J. Del'Angel, J. Gethers, K. Stamatiou, N. Bel Hadj Ali, R. Green Estimation of Landfill Surface Methane Emissions Using Geospatial Approach Combined with Measured Surface Ambient Air Methane Concentrations
15.45-16.00	P. Dutournié, M. Zbaïr, S. Bennici Thermochemical heat storage: system integration for building heating
16.00-16.15	G. Campo, A. Cerutti, B. Ruffino, M.C. Zanetti Improving the treatment train of a liquid waste treatment plant: actions' assessment
16.15-16.30	V.K. Firfiris, S.D. Kalamaras, G. Kefalas, T.A. Kotsopoulos The effect of climate change on dairy cattle behaviour in a cow barn in North Greece and possible effects on energy consumption
16.30-16.45	L. Cuenca, J.M. Rodríguez-Rego, L. Mendoza-Cerezo, V. Montes, S. Román Electrode production from an energy crop (miscanthus) carbonization
16.45-17.00	J. Bacenetti, M. Costantini, M. Guarino Comparison of abatement solutions for particulate matter and ammonia in pig farming
17.00-17.15	E. Elia, M. Stylianou, A. Agapiou VOCs emitted by indoor building materials
17.15-17.30	M. Stylianou, C. Samanides, I. Vyrides, A. Agapiou Use of pretreatment methods to enhance Biodesulfurization efficiency
17.30-17.45	K. Boikou, C. Chroni, E. Sigala, K. Abeliotis, K.E. Lasaridi Packrat or Environmentally conscious? The case of Greek mobile phone owners' behaviour

17.45-18.00	W. Hyk, M. Adamowska, M. Muszyńska Upcycling of electronic scrap towards the production of matrixless metal nanoparticle systems
18.00-18.15	I.S. Lase, J. Dewulf, K. Ragaert, S. De Meester Multivariate input-output analysis model to better estimate of future plastic waste generation: Case study of waste electrical and electronic equipment (WEEE)
18.15-18.30	Zhiqin Ni, Qiaodi Zhang, Xiangrong Liu Break the dilemma: Toward a better understanding of China's e-waste reverse logistics implementation barriers from a certified disassembler's perspective
18.30-18.45	D.I. Akano, E. Iacovidou, J. Malinauskaite, N. Rawkins, D. Williams The ease of replacing components of electronic products: A systematic literature review and case study
18.45-19.00	A. Preetam, S. N. Naik, K. K. Pant, V. Kumar A Feasible and Eco-friendly Process for the Treatment of Waste Random Accesses Memory as E-waste

ROOM 4**VIRTUAL
SESSION XXIV**
Tools for waste management, Recycling & Resources Recovery
Chair: L.M. Queiroz, D. Juchelková, V. Kumar Tyagi, C. N. Aguilar

15.00-15.15	A. Vannahme An Analysis of Existing and Emerging Deposit Return System (DRS) Models in the USA
15.15-15.30	A. Ahmad, M. Hassan Javed, F. Hussain, A.-S. Nizami Efficient and Cost-effective Food Waste Compost Production through Life Cycle Assessment Approach
15.30-15.45	A. Hublin, H. Malbaša, D. Stanec Svedrovic, M. Jerman Vranić Sustainable waste management in Croatia: Using Life Cycle Assessment to achieve a circular economy
15.45-16.00	N. Uzal, B. Uzal, F.B. Dilek, Y.N. Serdaroglu, O. Ozcan, S. Gulcimen, Z.N. Simsek, M. Ecer, Y. Kesimal, O. Albayrak, F. Selimoglu, S. Atay, H. Dogru, O. Ulutas, Z. Aki, O.C. Savas, U. Yetis Developing the environmental label criteria for the Turkish Environmental Labelling System for powder and liquid laundry detergents using a life cycle assessment approach

16.00-16.15	I. Orlandella, S. Fiore Overview of Life Cycle Assessment studies on agricultural waste management
16.15-16.30	F. Economou, I. Papamichael, I. Voukkali, P. Loizia, T. Rodríguez-Espinosa, J. Navarro-Pedreño, A.A. Zorpas Starting from the field: Environmental impact of potato production in Cyprus through an LCA approach
16.30-16.45	B. Uzal, N. Uzal, F.B. Dilek, S. Gulcimen, Z.N. Simsek, O. Ozcan, M. Ecer, Y. Kesimal, O. Albayrak, F. Selimoglu, S. Atay, H. Dogru, O. Ulutas, Z. Aki, O.C. Savas, U. Yetis Life cycle assessment of float glass products for the determination of environmental label criteria: the role of cullet usage
16.45-17.00	G. Baizhan, D. Shah, C. Venetis, Y. Sarbassov The use of LCA method to assess environmental impact of the current method of disposal of sewage sludge versus incineration method
17.00-17.15	L. Gurreri G. Mancini, A. Luciano, M. Calanni Rindina, L. Falqui, D. Fino Life cycle inventory of microalgae production in a real industrial plant
17.15-17.30	M. Hassan Javed, F. Hussain, A. Ahmad, A.-S. Nizami Sustainable Management of Construction and Demolition Waste to Achieve Zero Waste and Circular Economy
17.30-17.45	S.W. Yu, J.L. Hao, X. Tang, L. Di Sarno Enhancing circular economy through digital technology adoption in renovation waste management based on the theory of planned behaviour
17.45-18.00	Fan Zhang, A. Cannone Falchetto, Di Wang, L. Korkiala-Tanttu Substituting aggregates with hot braised steel slag (HBSS) to improve the self-healing properties of asphalt mixtures for sustainable pavement
18.00-18.15	A. Kumar Prabhakar, P. Krishnan, S. Siew-Chen Lee, Chin Sing Lim, A. Dixit, B. Cadiam Mohan, Jia Heng Teoh, Sze Dai Pang, D. C W Tsang, S. Lay-Ming Teo, Chi-Hwa Wang Sewage sludge ash-based mortar as construction material: Mechanical studies, macrofouling, and marine toxicity
18.15-18.30	B. Pada Bose, M. Kumar Mondal, Pratik Raj Comprehensive Recycling of the Coalmine Overburden Waste: A Sustainable Waste to Wealth Proposition
18.30-18.45	F. Perales, E. Gallego, N. Aguasca, R. Domínguez Determination of emission factors from a landfill through an inverse methodology: experimental determination of ambient air concentrations and use of numerical modelling

18.45-19.00	Thanh-Khiet L. Bui, Thu-Trang T. Nguyen, Ngan-Ha Ha, Kieu Lan Phuong Nguyen Toward a circular economy for better municipal solid waste management in Can Gio District, Ho Chi Minh City
19.00-19.15	R. Lo Coco, F. Battista, D. Bolzonella, N. Frison Recovery of bio-based volatile fatty acids by pertraction techniques from wastewater using green solvents
19.15-19.30	Zheng Li, Paula Istvan, Ravid Rosenzweig, Faina Gelman, Zeev Ronen The impact of biostimulation on the indigenous microbial communities in oil-contaminated desert soils in southern Israel
19.30-19.45	A. Elwattar, A. El-Gendy, E. Shaban Greywater Treatment using Integrated Sand filtration and Ultrafiltration for Reuse

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| <p>01 I. Kniuipytė, A. Dikšaitytė, M. Praspaliauskas, N. Pedišius, J. Žaltauskaitė
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Influence of the temperature of anaerobic fermentation on sewage sludge dewatering</p> |
| <p>03 M. Hyrycz, M. Ochowiak, M. Pielach, A. Krupińska
Seasonality in sewage sludge dewatering</p> | <p>04 I. Meireles, V. Sousa, A.P. Falcão, A.B. Gonçalves
Unlocking the potential of treated wastewater reuse: The case study of Lisbon</p> |
| <p>05 E.S. Papadaki, S. Grigorakis, P. Mitlianga, S.I. Lalas, D.P. Makris
Hydrothermal treatment of wheat bran under mild acidic or alkaline conditions to boost polyphenol recovery and produce ferulic acid-enriched extracts</p> | <p>06 A. Piekara, M. Krzywonos, A. Błaszczuk, S. Sady, B. Pacholek, S. Popek, S. Sygula-Cholewińska, T. Sawoszczuk, A. Kaczmarek
The potential of by-products from chokeberry processing - development of a sustainable method of upcycling fruit processing waste</p> |
| <p>07 A. Krupińska, M. Ochowiak, M. Hyrycz, S. Włodarczak, M. Matuszak
Rheological properties of selected polyelectrolyte aqueous solutions for dewatering sewage sludge</p> | <p>08 S. Hailan, P. Sobolciak, A. Popelka, P. Kasak, S. Adham, M. A AlMaadeed, I. Krupa
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| <p>09 A. Duque, I. Higuera, R. Iglesias, P. Manzanares
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Estimation of energy consumption in "fair" smart meter production and recycling</p> |
| <p>11 P.S. Karagiannopoulos, N.M. Manousakis, C.S. Psomopoulos
Repair and recycling of PCBs and their components considering energy consumption</p> | <p>12 M. Matuszak, A. Krupińska, M. Ochowiak, S. Włodarczak
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| <p>13 P.V. Gonçalves, M.N. Lopes, L.M.S. Campos
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| <p>15 A. Dimitriadis, V. Vasdekis, C. Kekes, S. Bezergianni
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| <p>17 Xuebin Lyu, Xinyuan Du, Zeng Dan, Duo Bu, Qiangying Zhang, Wei Li, Jian Xiong
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| <p>19 C. Orfanidou, A. Balidakis, I. Ipsilantis, T. Matsi
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| <p>21 A. Chaabani, E. Adem, N. Yilmaz, S. Boteva, Lifu Zhang, M. Elhag
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| <p>23 Jai-Young Lee, Hye-Won Park
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| <p>25 G. Sourkouni, Ch. Kalogirou, N. Papadimitriou, M. Nenadovic, M.
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| <p>27 A. Silva, V. Silva, A. Aires, R. Carvalho, J.E. Pereira, L. Maltez,
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| <p>29 M. Gallego-García, A.D. Moreno, A. González, I. Ballesteros, M.J. Negro
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| <p>33 R. Ionce
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| <p>35 A.J. Aragón, M. Sánchez, J.C. Torres, F. Osorio
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| <p>37 K. N. Kontogiannopoulos, A. Antoniadis, C. Roumpos, P.G. Kougias
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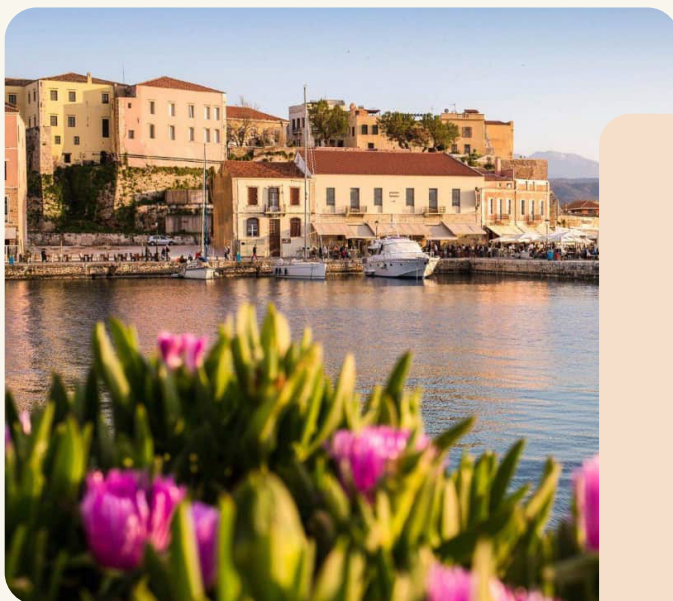
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| <p>195 C. Spyropoulou, M. Avramidi, S. Katsiolis, M. Kyriazi, J. Novakovic, K. Moustakas, D. Malamis, M. Loizidou
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