

Wednesday, June 11, 2025 | (a) 08:30–14:00 EEST (07:30–13:00 CEST)
Center of Mediterranean Architecture, Chania, Crete



Apostolis Koutinas is Chemical Engineer (University of Patras, Greece) with PhD in Biochemical Engineering (UMIST, UK). He is currently Professor at the Department of Food Science and Human Nutrition at the Agricultural University of Athens (Greece). His research focuses on bioprocess and biorefinery development within a circular economy context. Emphasis is given on biorefinery design, techno-economic evaluation and life cycle assessment for the sustainable production of bio-based chemicals and polymers using crude renewable resources. Since 2011, he has participated in >40 research and development projects funded by national and international funding agencies and the industry. He has published >200 papers in peer-reviewed scientific journals (h-index: 59) and 21 book chapters. He currently serves as co-Editor in the Biochemical Engineering Journal (Elsevier). To learn more about his research and team, please visit his Group on Bioprocess Engineering and Circular Bioeconomy website at https://becb.aua.gr LinkedIn (https://www.linkedin.com/company/group-onand at bioprocess-engineering-circular-bioeconomy/).

#### **DEDISA SA OTA**

The Intermunicipal Enterprise of Solid Waste Management of Chania – DEDISA S.A. (OTA) – implements an integrated, sustainable urban solid waste management system that relies on existing infrastructure, the application of advanced methodologies, and the continuous introduction of innovative practices. The strategic objective is to prevent and minimize waste generation, promote reuse, and deliver high-quality services across the entire waste management chain.

DEDISA's operational focus, includes the planning and execution of projects with an emphasis on source separation, pre-treatment, final waste disposal, waste collection, alternative waste management strategies, and public awareness. The company leverages environmental technologies and aims to ensure citizen engagement through information and transparency.

# **LUCRA Workshop**



"Municipal biowaste as feedstock in a sustainable and circular bioeconomy"

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Currently employing 250 personnel —15% of whom are scientific personnel—DEDISA also collaborates with numerous external experts and for specialized scientific tasks. Its comprehensive activities encompass a wide range of services and infrastructures, including:

•Mechanical and Manual Waste Sorting

Composting of the Organic Fraction of MSW (Municipal Solid Waste)
Collection and Transportation of MSW utilizing a proprietary fleet equipped with GPS for route optimization

•Bulky Waste Management

•Source Separation Program for Packaging Waste (excluding glass) and Paper Waste across all municipalities of the Chania Regional Unit

- •Glass Packaging Source Separation Program
- Biowaste Separation at Source
- •Composting of biowaste and Green waste

•Operation of the Sanitary Landfill- Leachate Treatment Plant of Chania •Alternative Management Programs for specific product streams (e.g. Electrical and electronic Equipment)

In addition to its operational activities, DEDISA actively participates in a wide range of national and European research projects, focusing on the development and application of innovative technologies and management models in the field of circular economy, sustainable waste treatment, environmental protection, and climate resilience.

The company also places strong emphasis on citizen awareness and education, implementing targeted actions particularly for students and young people. These include hundreds of informative sessions in educational institutions and organized visits to the Mechanical and Biological Treatment Plant (MBT) of Chania.

Through its integrated and forward-looking approach, DEDISA continues to set a benchmark in sustainable waste management, driving environmental progress and public value in Crete and beyond.



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**Marina Navarro** is a Chemical Engineer from the Universidad Autónoma de Madrid (bachelor's and master's degree). She started her career in research laboratories (wastewater treatment and sustainable hydrogen production). Currently, she is part of the staff of FCC Environment in the Biomethanization Plant Las Dehesas as R&D Technician, Technical Office and Environmental Monitor.

FCC Medio Ambiente is a world leader in environmental services, part of the FCC group (Fomento de Construcciones y Contratas), which manages waste and urban cleaning. It operates, among others, Las Dehesas Biomethanization Plant, in Madrid, where the organic fraction of selective collection is transformed into biogas, contributing to sustainable and energetic waste management.



**Tanja Meyer** works as European Project Coordinator at BBEPP, where she excels in networking, managing, and implementing various EUfunded projects, such as ShapingBio, SYMBA, BIOMAC amongst others. She is leading the CBE JU LUCRA project, which focuses on transforming organic waste into biobased succinic acid. Tanja holds a master's degree in technology and Innovation Management from The University of Brisbane and an Engineering degree in Bio-and Nanotechnologies from the South Westphalia University of Applied Sciences. Feel free to connect with her on LinkedIn.



**Korneel Rabaey** is at Ghent University (https://traslab.ugent.be) as well as honorary professor at The University of Queensland. He is one of the founders of CAPTURE (www.capture-resources.be), a centre focusing on resource recovery in the fields of Water, Carbon Capture and Utilization and Plastics to Resource. He is one of the founders of HYDROHM (www.hydrohm.com), a company focusing on electrification in the water sector as well as Electricon, a company focusing on sustainable  $CO_2$  capture.

Over his 20 year career, he has scaled up or been involved in scaling up multiple technologies to pilot scale including electrochemical systems for caustic production, metals recovery from problematic waste streams and production, nitrogen recovery and so on.



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**Professor Dimitrios N. Bikiaris** is Chemist and Professor at the Chemistry Department of Aristotle University of Thessaloniki. His research interests include the synthesis and characterization of polyesters and copolymers, biobased and biodegradable polymers, preparation and characterization of composites and nanocomposites, polymer blends, 3D printing, polymer recycling, modification of natural polymers, use of polymers for contaminants removal, microplastics and application of new biocompatible polymers in tissue engineering and pharmaceutical technology. His scientific work has been published in more than 615 papers, with over 30.500 citations, and h-index 92 (scopus). He has also written 4 chapters in international scientific books and he holds 15 international patents. He has participated in more than 64 research projects and is coordinator in 3 EU funded projects. In 2024 he was ranked in the first position in Materials Science in National ranking and at 1128 position in World ranking.



**Professor Emeritus Demetres Briassoulis** at the Department of Natural Resources and Agricultural Engineering of the Agricultural University of Athens (Greece). Graduate of this University, with PhD in Agricultural Engineering and PhD in Civil Engineering, at the Univ. of Illinois. He has led many EU /national projects in materials science and technology, design, development, assessment, End-of-Life management of conventional and bio-based plastics of the AgroFood sector, biodegradation in various environments. Through his research he has significantly contributed to the European policies and the scientific knowledge.



Rubin Huang is a polymer chemist with extensive experience in research and development in the plastics and resins industry.
2004-2008: PhD in Technical University of Eindhoven (TUE). Research area is polymer chemistry.

•2008 to 2009: R&D chemist in Sabic Innovative Plastics.

•2009-2010: R&D engineer in Elocoat which is part of Elopak with headquarter located in Norway.

•Since 2010, working in DSM Resins which later became Covestro Resins as R&D scientist, project manager and R&D team leader.



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Covestro is one of the world's largest polymer companies. Our business activities are focused on the manufacture of high-tech polymer materials and the development of innovative solutions for products used in many areas of daily life. The main segments served are the automotive, construction, wood processing and furniture, as well as electrical, electronics, and household appliances industries. Other sectors include sports and leisure, telecommunications, health, and the chemical industry itself.

Relevant interest of Covestro on bio-based succinic acid:

Covestro has a big ambition in the area of circular economy. In order to reach this target, one of the pillars is to replace raw materials derived from fossil by bio-based source. Succinic acid is currently being used within Covestro. However current succinic acid comes either fossilbased or corn-based. Corn-based might have potential competition with food chain. We believe that succinic acid obtained in this LUCRA project can be used as drop-in technology when purity is sufficient. Within LUCRA project, Covestro is going to evaluate succinic acid to prepare polyester polyols and later converted to PUD. PUD will be evaluated in textile coating applications in comparison with current reference.



Dr. Konstantina Karydi is a chemist working in the field of polymer synthesis and materials science.

•Post-doc in Polymer Synthesis and Drug Delivery Systems, PhD in Chemistry (University of Ioannina, Greece, 2005) with many years of expertise in new product development and innovation projects.

•R&D Manager - Organization and overseeing the scientific development of all projects of the CHIMAR R&D team. Involved in multidisciplinary projects on the synthesis of thermosetting resins, associated chemicals and bio-based adhesives from natural renewable materials, and on their evaluation in the production of composite wood panels.

•Project Manager in EU & National funded research projects.

•Author/co-author of 23 peer-reviewed publications and speaker at international conference presentations.

•Co-inventor in a patent on biodegradable polymers used for various applications.



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Dimitris Moutousidis is a chemical engineer working in the field of adhesives, advanced materials, and wood-based composites.

•MSc in Chemical Engineering (Aristotle University of Thessaloniki, 2016), with thesis in the field of Bio-Inorganic Chemistry and Advanced Materials.

•Project Manager in the R&D department - Formulations of adhesives and additives and their evaluation in the manufacture of composite wood panels (particleboards, MDF, plywood, OSB).

•Technical support to industrial manufacturers as regards the production of adhesive resins and their application in the production of composite wood products.

•Expertise in the development and industrial application of bio-based adhesives, binders and additives.

•Project Manager in EU & National funded research projects

•Author / co-author of peer-reviewed and technical/scientific publications and speaker at international conference presentations of the field.

**CHIMAR** is an innovating R&D company, which develops and provides competitive chemical technology and services for the industrial manufacture of adhesives and composite wood-based products (for furniture, building parts, insulation).

CHIMAR is pioneer in technology for bio-based adhesives, replacing petrochemical feedstocks with renewables from lignocellulosic natural materials and residues. It is a member of the Bio-based Industries Consortium (BIC).

CHIMAR hosts advanced chemical and technical labs and pilots for adhesive and composite panel production and evaluation. Promising technology is validated by CHIMAR at industrial scale, prior to market introduction.

CHIMAR expertise counts since 1977 and is spread all around the world. Today, CHIMAR has 10% market share in particleboard and MDF produced globally per year under its technology.



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Dr. Dimitrios Ladakis is an Assistant Professor in the Department of Agricultural Development, Agri-Food, and Natural Resource Management at the National and Kapodistrian University of Athens, specializing in "Bioprocesses for the utilization of agro-industrial waste with a focus on circular economy." Dr. Ladakis holds a degree in Chemical Engineering from the University of Patras and a Master's degree from the Department of Food Science and Human Nutrition at the Agricultural University of Athens. He earned his PhD in Chemical Engineering from the University of Patras, where his research centered on the development and design of bioprocesses for succinic acid production. His research interests includes the development and design of sustainable biorefineries using renewable resources to produce value-added products and bio-based materials, in line with the principles of the circular economy. Additionally, focuses on the evaluation of the sustainability of new technologies via the estimation of environmental and economic indicators, applying life cycle analysis and techno-economic assessment methodologies. Has been involved as a researcher in more than 15 national and European research projects. His work has resulted in over 38 publications in peer-reviewed international and 5 chapters in scientific books.



Narinder Bains is the CEO at Ineuvo Ltd, an industrial chemist by education and early profession having worked in speciality chemicals for 11 years at Dow Electronic Chemicals. Subsequently worked as Business Development Manager/Innovation Manager at University of Birmingham's school of engineering. He was a Technical Director at Biowayste Ltd, an UK based Anaerobic Digestion technology supplier. EU/InnovateUK Projects Manager at Coventry University Functional Materials Research Group. Founder/Owner of SERE-Tech Innovation Ltd for 10 years before taking over at Ineuvo Ltd. Narinder and his team of chemical/process engineers and project managers at Ineuvo have considerable extensive experience in new technology development upscaling from TRL3 to TRL8 and accessing feasibility, collaborative R&D and demonstrator funding from BEIS, InnovateUK, Horizon 2020, Horizon Europe, BBIJU and CBEJU programmes. Extensive experience of developing, coordinating and managing large multi-partner and multinational projects. Current projects are developing novel and sustainable biobased products from municipal waste, wastewater, agri-food waste and papermill waste for applications in the chemicals, food, feed, cosmetics, pharmaceuticals and packaging industry.