

**5th International Conference
on Ecotechnologies for
Wastewater Treatment**



June 21-25, 2021

**Ecotechnologies for
Wastewater Treatment
2020/1** Milan,
Italy



> DETAILED PROGRAMME <

IWA EcoSTP 2021
**“Impacting the environment with
innovation in wastewater treatment”**

Milan, Italy - June 21-25, 2021



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OVERVIEW

TIME (CEST)		MONDAY, JUNE 21 st		
13:30 - 15:00	Opening Session	PLENARY OPENING SESSION		
15:00 - 15:15	Break			
15:15 - 16:45	Mid session	Anaerobic Digestion 1 (AD1)	Nutrient Removal 1 (NR1)	NBS and Decentralized Treatments 1 (NDT1)
16:45 - 17:00	Break			
17:00 - 18:30	Late Session	Anaerobic Digestion 2 (AD2)	Nutrient Removal 2 (NR2)	NBS and Decentralized Treatments 2 (NDT2)
TIME (CEST)		TUESDAY, JUNE 22 nd		
13:30 - 15:00	Opening Session	WORKSHOP#1 (WS1 - MA)		WORKSHOP#2 (WS2 - CSO)
15:00 - 15:15	Break			
15:15 - 16:45	Mid session	Disinfection and AOPs (DA)	Energy Neutrality and Carbon Footprint 1 (ENCF1)	Granular Sludge and EPS Recovery (GE)
16:45 - 17:00	Break			
17:00 - 18:30	Late Session	POSTER SESSION (PS1) + SPONSOR WORKSHOPS (SW1)		
TIME (CEST)		WEDNESDAY, JUNE 23 rd		
13:30 - 15:00	Opening Session	MID PLENARY SESSION		
15:00 - 15:15	Break			
15:15 - 16:45	Mid session	Contaminants of Emerging Concern 1 (CEC1)	Circular Economy 1 (CE1)	From Lab- to Full-Scale (L2F)
16:45 - 17:00	Break			
17:00 - 18:30	Late Session	WORKSHOP#3 (WS3 - NBS)	WORKSHOP#4 (WS4 - WBE)	WORKSHOP#5 (WS5 - LCA)
TIME (CEST)		THURSDAY, JUNE 24 th		
13:30 - 15:00	Opening Session	WORKSHOP#6 (WS6 - IM)	WORKSHOP#7 (WS7 - AUTO)	WORKSHOP#8 (WS8 - DEC)
15:00 - 15:15	Break			
15:15 - 16:45	Mid session	Case-Studies (CS)	Circular Economy 2 (CE2)	Energy Neutrality and Carbon Footprint 2 (ENCF2)
16:45 - 17:00	Break			
17:00 - 18:30	Late Session	POSTER SESSION (PS2) + SPONSOR WORKSHOPS (SW2)		
TIME (CEST)		FRIDAY, JUNE 25 th		
10:30 - 12:00	Morning session	LAUREA AD HONOREM PROF. JUAN LEMA		
12:00 - 13:30	Break			
13:30 - 15:00	Opening Session	Contaminants of Emerging Concern 2 (CEC2)	Circular Economy 3 (CE3)	Process Modelling and Optimization 1 (PMMO1)
15:00 - 15:15	Break			
15:15 - 16:45	Mid session	Contaminants of Emerging Concern 3 (CEC3)	Circular Economy 4 (CE4)	Process Modelling and Optimization 2 (PMMO2)
16:45 - 17:00	Break			
17:00 - 18:30	Late Session	PLENARY CLOSING SESSION		

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ECOSTP

June 21-25, 2021

IWA
the international
water association

**Ecotechnologies for
Wastewater Treatment**
2021 Milan,
Italy

KEYNOTE SPEAKERS

PLENARY OPENING SESSION (MONDAY, JUNE 21st | h.13:30 – 15:00)

Jelena Radjenovic | Graphene-enabled water treatment:
main outcomes of the ERC StG ELECTRON4WATER

Daniele Moretti | Communicating science: helping scientists reach general public

Jelena Radjenovic

ICREA Research Professor at Catalan Institute for Water Research

Expert in nanostructured electrode materials development, electrochemical (waste)water treatment systems, advanced (waste)water treatment technologies and analysis of organic micropollutants, including high resolution mass spectrometry. ERC StG grantee and leader of a research line AIII: Next generation solutions and nature-inspired water treatment technologies, Technology and Evaluation Area at ICRA. PhD in 2009 in Environmental Chemistry, University of Barcelona, focused on the removal and mechanistic studies of persistent organic contaminants in advanced biological and physico-chemical water treatment. 2009-2014: Researcher at the Advanced Water Management Centre (AWMC), University of Queensland, research, and development of electrochemical water treatment systems. 2014-present: Researcher at ICRA. >50 research publications, 6 book chapters, >20 invited talks and keynotes given at international conferences and workshops. 2 EU patent applications (pending publication). 13 PhD students (7 ongoing), out of which 10 as principal advisor. Awarded with several highly competitive fellowships in Australia (Early Career Smart Future Fellowship) and Europe (Marie Curie IIF, Ramon y Cajal). PI of two Spanish and several EU and international projects. Editor of Journal of Hazardous Materials Letters. Currently leading a research group of 2 post-doc research fellows and 6 PhD students, dedicated to graphene-enhanced wastewater treatment, and development of nanostructured materials for electrochemical water and wastewater treatment.



Daniele Moretti

Sky TG24 Director of Newsgathering & Op.



2007, Executive Producer "Allarme Clima", show aimed at the sensibilization of the general public to climate change-related issues.

2011, Author "Dirigibile Italia, cronache dal Polo", special report from Italy's National Research Council Arctic Base about researchers' life in Ny-Ålesund, in the Svalbard Islands.

2011, Author "Everest, scienziati mozzafiato", documentary about the world's highest meteorological station on the South Col of Mount Everest, 26,000 feet above sea level.

2014, Member of the mission "K2, 60 years later", linked to the development of the National Park of Central Karakorum – which also inspired the movie 'K2, a cry from the top'.

2015, XXXI Italian mission in Antarctica embedded.

Since January 2017, Sky Ocean Rescue campaign – coordinator of Italy's news contributions

MID PLENARY SESSION (WEDNESDAY, JUNE 23rd | h.13:30 – 15:00)

Celia Manaia | Urban wastewater treatment plants: imperfect yet priceless barriers against antibiotic resistance

Frank Rogalla | The integral water cycle as a model for the circular economy

David Gentilcore | 'For the universal benefit of the health of this city': Waste disposal and the urban environment in Europe, 1500-1750

Celia Manaia

*Associate Professor at Escola Superior de Biotecnologia,
Universidade Católica Portuguesa*

Celia Manaia research interests include the study of the diversity and ecology of bacteria in human-impacted areas, with special emphasis on the potential impacts of antibiotic resistant bacteria and genes as environmental contaminants. The importance of municipal and hospital wastewater, the influence of the treatment processes, as well the tracing of possible antibiotic resistant bacteria and antibiotic resistance genes have been main research issues. The international and inter-laboratory antibiotic resistance monitoring in water environments, aiming at the development of surveillance schemes has also been an issue of interest.

Célia Manaia has a background in Biochemistry and specialization in Microbiology and teaches in the areas of Microbiology and Genetics. Currently, she is Vice-President for Research and Internationalization at the Porto Regional Center of the Universidade Católica Portuguesa and is Vice-President of the Portuguese Microbiology Society.



Frank Rogalla

Director of Innovation at Aqualia (Madrid, Spain)

Aqualia provides water services for around 30 M people and is owned by Spanish infrastructure group FCC and Australian Fund IFM. With around 10,000 employees providing water services to almost 1,000 towns in Spain and close to 20 countries, in Europe, Latin America, the Middle East and North Africa, aqualia's turnover in 2020 was 1.2 billion €.



Frank studied Environmental Engineering in Germany, followed by an MSc as a Fulbright student in the US. After ten years at Veolia Research Center in France, he was stationed in New York and Sao Paulo, then led the Global Technology Team for a large global contractor, based in London, UK, coordinating water projects worldwide.

In the last 10 years, Frank created the innovation team at Aqualia and coordinated the participation in more than 10 projects each in both EU programs Life and H2020. The focus is on resource recovery and sustainable solutions, starting with microbial desalination (www.midesH2020.eu) all the way to algae biofuel from wastewater (www.all-gas.eu), using anaerobic membrane bioreactors (www.life-memory.eu) and decentralised nutrient recovery (www.run4life-project.eu), coordinated by smart services and intelligent tools in www.rewaise.eu.

David Gentilcore

Professor of modern history at Ca' Foscari University of Venice

David Gentilcore is professor of modern history at Ca' Foscari University of Venice and PI for the European Research Council Advanced Grant "The Water Cultures of Italy, 1500-1900". Gentilcore has written widely on the relationship between health and diet, including the monograph *Food and Health in Early Modern Europe* (London: Bloomsbury, 2016) and a co-edited volume of essays (with Matthew Smith), entitled *Proteins, Pathologies and Politics Dietary Innovation and Disease from the Nineteenth Century* (London: Bloomsbury, 2018).

The five-year Water Cultures project is based around the synergistic braiding of five key research 'streams': the symbolic beliefs and practices associated with water; the circulation and evolution of knowledge about water and disease and its effects; the water management systems of large cities and demands on them; the changing hydraulic landscape of rural areas; and the occupations of water, exploring the professions and trades associated with water and its delivery and uses. The Water Cultures project proposes the history and culture of a given society based on its relationships and interactions with water: the ways of controlling, using and conceiving it, and the symbolic, creative and material dimensions it assumed.



PLENARY CLOSING SESSION (FRIDAY, JUNE 25th | h.17:00 – 18:30)

Juan Lema | Biorefinery: marketing or reality?

Juan Lema,

Emeritus Professor of Chemical Engineering at the University of Santiago de Compostela (Spain).



Juan M. Lema is Supervisor of 60 PhD Thesis Author of more than 430 papers and book chapters; H index: 65 (Scopus); and a FWCI 1,47. Author of 20 patents (9 European or International). Ranked amongst the 2% highest impact researchers worldwide in Biotechnology in the "Stanford list". He has been Head of Departments of Chemical Engineering at the Autonomous University of Barcelona (UAB) (1981-83) and Santiago de Compostela (USC) (1991-2000). First Director of the Technological Transfer Centre (USC) (1999-2000). First Dean of School of Engineering USC (2003-2010). First Head of the Spanish Conference of Chemical Engineering Deans (CODDIQ) (2008-2012). Promotor and Scientific Coordinator of CRETUS (USC) (Centre of Cross-disciplinary Research in Environmental Technologies) (2015-).

Academic (2016) and President (2019) of The Royal Galician Academy of Sciences; Dr. *Honoris causa* by Catholic University of Valparaíso, Chile (2015); Honorary Professor of The University of Queensland (2018); Fellow of International Water Association (2014); Golden Insignia of University of Santiago de Compostela (2013); "Martinez Moreno Award of Innovation. Madrid (2011); Golden medal of Chemical Engineering University of Valladolid (2010); Babcock award to Innovation (2004), European Prize of Industrial Enzymes. Barcelona (1993).

LAUREA AD HONOREM PROF. JUAN LEMA (FRIDAY, JUNE 25th | h.10:30 – 12:00)

PROGRAMME

Opening and introduction

Professor Alberto Taliercio
Dean of the School of Civil, Environmental
and Land Planning Engineering

Laudatio

Professor Francesca Malpei
Department of Civil and Environmental Engineering

Lectio Magistralis

Emeritus Professor Juan Lema

Motivation for the Laurea Magistrale ad honorem

Professor Alberto Guadagnini
Director of the Department of Civil and Environmental Engineering

Awarding of the Laurea Magistrale ad Honorem in Environmental and Land Planning Engineering

Professor Alberto Taliercio
Dean of the School of Civil, Environmental
and Land Planning Engineering

The event in presence will take place at

Politecnico di Milano, Aula De Donato
Piazza Leonardo da Vinci, 32 - Milano

WORKSHOPS

Tuesday, June 22nd h.13:30 - 15:00	WS1 – MA	Microalgae in wastewater treatment: bottlenecks and perspectives for full scale applications
	WS2 – CSO	Combined sewer overflows (CSOs): from challenges to innovations in treatment and monitoring strategies
Wednesday, June 23rd h.17:00 - 18:30	WS3 – NBS	Implementing nature based solutions for creating a resourceful circular city: measuring and assessing circularity
	WS4 – WBE	Wastewater-Based Surveillance to Track COVID-19 – Challenges and Opportunities
	WS5 – LCA	Multi-criteria sustainability in wastewater treatment schemes
Thursday, June 24th h.13:30 - 15:00	WS6 – IM	Integrated modelling as a tool for strategic planning of water resources
	WS7 – AUTO	Autotrophic denitrification: a sustainable solution for nutrient removal and water detoxification
	WS9 – DEC	Decentralized treatments for resource recovery from domestic wastewater

WORKSHOP #1 (WS1 – MA)

Tuesday, June 22nd 2021 | h. 13:30 – 15:00 (CEST)

Microalgae in wastewater treatment – Bottlenecks and perspective for full-scale application

Organizers



Elena Ficara, [Polytechnic University of Milan](#)



Valeria Mezzanotte, [University of Milano-Bicocca](#)

Presenters

[Frank Rogalla](#)

[Ivet Ferrer](#)

[Maria del Rosario Rodero](#)

[Gabriel Acien](#)

[Olivier Bernard](#)

[Francesca Casagli](#)

Facilitator

[Robert Reinhardt](#)

Environmental deterioration, resource depletion and climate change are forcing the water industry to find cost-effective and low-energy solutions able to remove pollutants while maximizing the recovery of resources from wastewater. Microalgae-based technologies are promising as they rely on phototrophic microorganisms which remove nutrients by assimilation and fix CO₂ which could be provided as flue gases or as concentrated stream from biogas upgrading. Moreover, photooxygenation supports the growth of aerobic bacteria that work in synergy with microalgae. This workshop aims at presenting and discussing the state of the art of existing applications at pilot and demonstration scale as well as the main on-going research topics. The current TRL, the strength and weakness as well as the opportunities and threats of such processes will be presented. Selected and experienced speakers will address relevant aspects, including: process performances (macro and micro-pollutant removal capacity, algae productivity and resilience), the complex algae-bacteria interactions (oxygen and nutrient balance, synergistic and antagonistic effects, nitrification), technical solutions.

WORKSHOP #2 (WS2 – CSO)

Combined sewer overflows (CSOs): from challenges to innovations in treatment and monitoring strategies

Organizers



Siva Sarathy, Trojan Technologies



Francesca Giaccherini, Trojan Technologies



Francesco Fatone, Marche Polytechnic University



Thorsten Kuntz, GO [Systemelektronik](#)



Saba Daneshgar, [University of Ghent](#)

Tuesday, June 22nd 2021 | h. 13:30 – 15:00 (CEST)

Pollution from urban stormwater discharges and combined sewer overflows (CSOs) are reported as one of the main factors affecting the water quality of receiving bodies. Consequently, developing strategies for CSO management and control has become central in the environmental agenda of municipalities around the world exacerbated by the limitations of combined sewer system (CSS) infrastructure and/or the limited capacity of municipal wastewater treatment plants (WWTPs). Furthermore, the additional flow generated by extreme wet-weather events could lead to a bypass of wastewater treatment plants and untreated wastewater being discharged directly into the environment. Since locations associated with CSO discharges are typically not always easily accessible and often space-limited, the design, operation and management of these facilities present a unique challenge. As a result, there is a need to develop new, space-efficient treatment schemes able to remove a broad spectrum of pollutants in a single and multifunctional train.

WORKSHOP #3 (WS3 – NBS)

Implementing nature based solutions for creating a resourceful circular city: Measuring and assessing circularity

Organizers



Evina [Katsou](#), Brunel University London



Natasa Atanasova, University of [Ljubljana](#)



Vasileia Vasilaki, Brunel University London



Eliza [Nika](#), Brunel University London



Petra [Perraar](#), University of [Ljubljana](#)

Wednesday, June 23rd 2021 | h. 17:00 - 18:30 (CEST)

The COST Action Circular City (<https://circular-city.eu/>) is structured around five working groups: Build Environment, Sustainable urban water [utilisation](#), Resource Recovery, Urban Farming and Transformation Tools. The application of the circular economy (CE) principles into cities still lacks full implementation.

The aim of this workshop is to identify transformation tools enabling the implementation of Nature-based Solutions for creating a resourceful circular city. The target is to identify indicators for measuring and assessing circularity following a participatory approach. The development of broader conceptual frameworks and practical tools for the implementation and assessment of CE solutions can shape the evidence-base for their integration in policy and practice.

WORKSHOP #4 (WS4 – WBE)

Wastewater-Based Surveillance to Track COVID-19 - Challenges and Opportunities

Wednesday June 23rd 2021 | h 17:00 - 18.30 (CEST)

The event is organized by the WBE Lombardy Research Network as workshop of the IWA EcoSTP 2021 international conference 11



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|-----------------|---|--|
| ● 17:00 - 17:05 | Welcome from the Network | Francesca Malpei
Politecnico di Milano |
| ● 17:05 - 17:15 | The EU Sewage Sentinel System for SARS-CoV-2: putting the EC Recommendation into action | Bernd Manfred Gawlik
European Commission JRC |
| ● 17:15 - 17:25 | Environmental Monitoring for Health Protection: Wastewater Monitoring for SARS-CoV-2 and its Variants in England | Matthew Wade
Joint Biosecurity Center, Dept.
Health & Social Care, UK Gov. |
| ● 17:25 - 17:35 | Linking SARS-CoV-2 signals in WWTP inflows to prevalence data in the catchment: considerations in relation to the size of the WWTP | Norbert Kreuzinger
TU Wien |
| ● 17:35 - 17:45 | Detection of SARS-CoV-2 RNA in sludge and elsewhere in the WWTP | Miguel Mauricio Iglesias
Universidade de Santiago de
Compostela |
| ● 17:45-18:30 | Discussion forum:
- Design of the surveillance system: optimal WWTP dimensions and locations
- Empirical vs. mechanistic models in analysis of RNA/infections correlation
- Pros and cons of sludge measures of RNA in wastewater surveillance | |

FREE-ACCESS VIRTUAL EVENT UPON REGISTRATION

WORKSHOP #5 (WS5 – LCA)

Wednesday, June 23rd 2021 | h. 17:00 - 18:30 (CEST)

Multi-criteria sustainability in wastewater treatment schemes

Organizers



María Teresa Moreira,
University of Santiago de Compostela



Paula Pérez-López, Centre O.I.E. of MINES ParisTech



Magdalena Svanström,
Chalmers University of Technology



Giorgio Bertanza, University of Brescia

Wastewater treatment must be approached from a paradigm shift. Today, wastewater treatment plants (WWTPs) should no longer be considered end-of-pipe systems but should be addressed by integrating technological performance objectives but also environmental, economic and social indicators. A critical component of a holistic analysis is life cycle assessment (LCA) and how this tool can be used to formulate policies and operational strategies for wastewater management. The workshop will be a forum for discussion on how LCA is currently used and how assessment results can be used for decision-making in wastewater management.

WORKSHOP #6 (WS6 – IM)

Thursday, June 24th 2021 | h. 13:30 - 15:00 (CEST)

Integrated modelling as a tool for strategic planning of water resources

Organizers



Manuela Antonelli, Polytechnic University of Milan



Andrea Turolla, Polytechnic University of Milan



Paola Verlicchi, University of Ferrara

Presenters

Jacopo Foschi
Marco Gabrielli
Andrea Ghirardini

The importance of considering the water cycle as a whole is growing more than ever, pointed out as a critical issue the cross-contamination of water resources as origin of chemical (e.g., contaminants of emerging concern) and microbiological risk. Such vision is particularly relevant when dealing with the growing need for circular practices, including safe and sustainable wastewater reclamation and reuse, and sewage sludge recycling. Several tools for integrated modelling have been developed in recent years for quantitative risk assessment, allowing for the prioritization of pollution sources and for the identification of optimal management strategies. While some limitations in these approaches were identified, the potential of these tools for a proper planning of both water resources and sludge was evidenced.

The main objectives of this workshop are to share some recent experiences related to the integrated modelling, to identify existing bottlenecks for its application and to suggest priority developments in the view of facing future challenges, in order to boost safe and scientifically-driven wastewater and sludge reuse practices.

WORKSHOP #7 (WS7 – AUTO)

Thursday, June 24th 2021 | h. 13:30 - 15:00 (CEST)

Autotrophic denitrification: a sustainable solution for nutrient removal and water detoxification

Organizers



Giovanni Esposito, [University of Napoli Federico II](#)



Stefano Papirio, [University of Napoli Federico II](#)



Erkan Sahinkaya, [Istanbul Medeniyet University](#)



Anastasiia Kostytsia, [University of Glasgow](#)



Cesar Huiliñir, [Universidad de Santiago de Chile](#)



Francesco Di Capua, [Polytechnic University of Bari](#)

The workshop will be a forum to discuss experiences, applications, critical aspects, technological advances and future vision regarding autotrophic denitrification from laboratory to full scale.

The selected contributions will focus on the advantages and drawbacks of using different electron donors and bioreactor configurations and open a discussion on process improvement and scale-up, with an emphasis on process challenges and practical applications.

WORKSHOP #8 (WS8 – DEC)

Thursday, June 24th 2021 | h. 13:30 - 15:00 (CEST)

Decentralized treatments for resource recovery from domestic wastewater

Organizers



Nicolás Morales, [Aqualia](#)



Grietje Zeeman, [LeAF Wageningen University](#)



Paraschos Chatzopoulos, [Desah](#)



Beatriz Medina, [WE&B](#)

The efficient recovery of water, [fertilisers](#), energy and other resources from wastewater is key for the transition to a circular economy.

Technology development companies will introduce the paradigm change in wastewater management proposed by the Run4Life project, based on the [decentralised](#) treatment of segregated streams of wastewater and kitchen waste. The crucial aspect of social acceptance of the decentralised treatment concept, innovative technologies and use of the recovered products will be presented.

Challenges and opportunities of this new approach will be discussed, in an interactive way, with the audience.

SESSION DAY BY DAY PROGRAM | Monday, June 21st | MID SESSION (h.15:15 – 16:45)

ANAEROBIC DIGESTION 1 (AD1) External chair: Ana Soares, Cranfield University	NUTRIENT REMOVAL 1 (NR1)	NBS AND DECENTRALIZED TREATMENTS 1 (NDT1)
AD1 #1 - Feasibility Of Dynamic Membrane Filtration For Conditioning Effluents Of UASB Reactors Treating Sewage Aiming At The Recovery Of Dissolved Methane In Membrane Contactors - Erick Centeno, Federal University of Minas Gerais (Brasil)	NR1 #1 - Biologically Induced Hydroxyapatite Production In An Anammox-Based Treatment System - Albert Magrí, University of Girona (Spain)	NDT1 #1 - A Modular And Innovative Nature-Based Integrated Solution To Provide Sanitation And Sustainable Wastewater Treatment In Decentralized Systems - Luca Sbardella, University of Girona (Spain)
AD1 #2 - Biological Upgrading Of Biogas And Production Of Single Cell Proteins - Jacob Kragh Andersen, EnviDan (Denmark)	NR1 #2 - Comparative Analyses Of Sulphurous Electron Donors For Autotrophic Denitrification - Maria Carboni, National University of Ireland Galway (Ireland)	NDT1 #2 - Integrated Wastewater Reuse System For Sustainable Housing Or Office Buildings - Philippe Sauvignet, Veolia (France)
AD1 #3 - Characterising And Modelling High Solid Anaerobic Digestion At Different Ammonium Concentrations - Mahdi Seyedsalehi, Tsinghua University (China)	NR1 #3 - Control Of Nitrogen Removal In An OLAND Process Through Ammonium Loading Rate Variation - Oscar Gonzales Barcelo, National Autonomous University of Mexico (Mexico)	NDT1 #3 - PN/AMX System Robustness Under Repeated Starvation And Reactivation For Blackwater Treatment - Angeles Val del Rio, University of Santiago de Compostela (Spain)
AD1 #4 - Waste To Bioenergy: Anaerobic Digestion Of Slaughterhouse Wastewater For Bioenergy, Pharmaceutical Compounds Degradation And Antibiotic Resistance Genes - Soraya Zahedi, Catalan Institute for Water Research (Spain)	NR1 #4 - Partial Nitrification/Anammox Process Treating Digital Textile Printing Effluent: Lab-Scale Experimental And Modelling Trial - Roberto Canziani, Polytechnic University of Milan (Italy)	NDT1 #4 - Rural Wastewater Treatment In Low Temperature Conditions - Gareth Brown, Cranfield University (United Kingdom)
AD1 #5 - Ozone Treatment Of Poorly Degradable Sludge To Enhance Anaerobic Digestion - Arianna Catenacci, Polytechnic University of Milan (Italy)	NR1 #5 - No Bubble Deammonification - Brought To You By The Membrane Aerated Biofilm Reactor (MABR) - Daniel Coutts, Suez (Italy)	NDT1 #5 - Decentral Reuse Of Greywater Using A Constructed Wetland And Nanofiltration, And Production Of Struvite From Urine - Francis Meerburg, Aquafin (Belgium)
AD1 #6 - Hydrothermal Pre-treatment Impact On Single And Two Stage Anaerobic Digestion Of Municipal Sludge - Farokh Laqa Kakar, Ryerson University (Canada)	NR1 #6 - A Decade Of ANITA Mox, What Have We Learned? - Luca Quadri, Veolia (France)	NDT1 #6 - Decision Support Tools for the Removal of Emerging Organic Contaminants by Constructed Wetlands - Huma Ilyas, Université de Paris (France)
	NR1 #7 - Biological Treatment Of Textile Wastewater Based On Anammox Granules, Microalgae And Fungi - Micol Bellucci, Polytechnic University of Milan (Italy)	NDT1 #7 - In Silico Assessment Of Water Quality And Quantity In Household Based Water Treatment Systems - Korneel Rabaey, Ghent University (Belgium)

SESSION DAY BY DAY PROGRAM | Monday, June 21st | LATE SESSION (h.17:00 – 18:30)

ANAEROBIC DIGESTION 2 (AD2) External chair: Piet Lens, IHE Delft	NUTRIENT REMOVAL 2 (NR2) External chair: Jesus Colprim, Universitat de Girona	NBS AND DECENTRALIZED TREATMENTS 2 (NDT2) External chair: Korneel Rabaey, University of Ghent
AD2#1 - Hydrodynamic Cavitation As Potential Gas Mass Transfer System For Ex-situ Hydrogenotrophic Biomethanation - Antonio Giuliano, ENEA (Italy)	NR2#1 - The Effect Of Sulphate On The Efficiency Of Anaerobic Ammonia Oxidation - Dominika Grubba, Gdansk University of Technology (Poland)	NDT2#1 - Decentralised Alternative Water Sources, Closed Water Loops And Nature-Based Solutions: Legislative And Institutional Analyses - Giulia Cipolletta, Marche Polytechnic University (Italy)
AD2#2 - Bio-augmentation Of Mixed Culture Fermentation By Clostridium Butyricum To Enhance Butyric Acid Production - Merve Atasoy, KTH Royal Institute of Technology (Sweden)	NR2#2 - Mainstream Anammox Bacteria Biostimulation By A Novel Return-Sludge Nursery Reactor - Weiqiang Zhu, University of Antwerp (Belgium)	NDT 2#2 - Acceptance Of Decentralized Wastewater Systems In Regions Without Public Awareness Of Water Problems - Cristina Gomez Roman, University of Santiago de Compostela (Spain)
AD2#3 - Direct Energy Recovery From Municipal Wastewater With UASB Reactors: Effects Of Operation Parameters And Microbial Dynamics - Isaac Owusu-Agyeman, KTH Royal Institute of Technology (Sweden)	NR2#3 - Improved Suppression Of Nitrite-Oxidizing Bacteria For Mainstream Partial Nitrification/Anammox Through Optimizing Multi-Parameter Return-Sludge Treatment - Michiel Van Tendeloo, University of Antwerp (Belgium)	NDT2#3 - Eco-Safe Nanotechnologies For Wastewater Remediation: From Material Ecodesign To In Situ Treatment - Andrea Fiorati, Polytechnic University of Milan (Italy)
AD2#4 - Volatile Fatty Acids: An Anaerobic Fermentation Towards An Increased Added Value of Industrial Wastewaters - Tamara Casero Diaz, CETAQUA (Spain)	NR2#4 - Biological Nutrient Removal Intensification Using Membrane Aerated Biofilm Reactors - Sandeep Sathyamoorthy, Black & Veatch (USA)	NDT2#4 - Banana Tree Circle Design As A Natural-Based Solution For Greywater Treatment And Resource Recovery - Juliano Silva, Universidade Federal de Viçosa (Brasil)
AD2#5 - Micro-Aeration Affects Blackwater Anaerobic Digestion, Microbial Community And Antimicrobial Resistant Genes - Bing Guo, University of Alberta (Canada)	NR2#5 - Nutrient Removal By A Consortium Of Algae-Bacteria: The Case Of The Photo-Biological Nutrient Removal Process - Virginia Carvalho, New University of Lisbon (Portugal)	NDT2#5 - A Simulation Platform For The Design, Monitoring And Optimisation Of Decentralised Resource Recovery From Wastewater - Miguel Mauricio Iglesias, University of Santiago de Compostela (Spain)
AD2#6 - Pilot Study Of Low Temperature Thermal Alkaline Pretreatment Of Waste Activated Sludge: Biogas Yield, Dewaterability And Refractory COD - Vahid Toutian, Berlin Center of Competence for Water (Germany)	NR2#6 - Long-Term And Complete Suppression Of Nitrite-Oxidizing Bacteria For Mainstream Partial Nitrification/Anammox Using Continuously Low Oxygen Levels - Michiel Van Tendeloo, University of Antwerp (Belgium)	NDT2#6 - Vertical Constructed Wetland For Greywater Treatment And Reuse In Touristic Resorts: Feasibility Study - Josephine Vosse, Catalan Institute for Water Research (Spain)
AD2#7 - Sewage Sludge Pre-Treatments As A Technical Solution To Enhance Methane Yield In Existing Anaerobic Digesters - Matia Mainardis, University of Udine (Italy)	NR2#7 - Application Of An Enrichment Culture Of A Novel Marine Anammox Bacterium For Nitrogen Removal From Saline Wastewater - Muhammad Ali, King Abdullah University of Science and Technology (Saudi Arabia)	NDT2#7 - Economic Assessment Of Water Circularity - Decentralised Hybrid Rainwater-Greywater Systems - Madieh Ghafournian, Brunel University (United Kingdom)
	NR2#8 - Cerium As Trace Element To Enhance Nitrite-Dependent Anaerobic Methane Oxidation Processes - Silvana Ines Quiton Tapia, University of Santiago de Compostela (Spain)	

SESSION DAY BY DAY PROGRAM | Tuesday, June 22nd | MID SESSION (h.15:15 – 16:45)

DISINFECTION AND AOPs (DA) External chair: Ted Mao, MW Technologies	ENERGY NEUTRALITY AND CARBON FOOTPRINT 1 (ENCF1) External chair: Cecilia Caretti, University of Firenze	GRANULAR SLUDGE AND EPS RECOVERY (GE) External chair: Yuemei Lin, TU Delft
DA#1 - Removal Of Emerging Contaminants From Wastewater By Alternative Advanced Oxidation Processes At Pilot Scale - Massimiliano Sgroi, Marche Polytechnic University (Italy)	ENCF1#1 - Shaping The New Low-energy WRRF: Strategies Based On Renewable Energies And Application To Italian Case Study - Manel Garrido Baserba, UC Irvine (USA)	GE#1 - Resource Recovery: Extracellular Biopolymers From Waste Granular Sludge - Cuijie Feng, Polytechnic University of Milan (Italy)
DA#2 - Integrating O ₃ /H ₂ O ₂ /UV Advanced Oxidation With Biofiltration For Advanced Wastewater Treatment: How Far Are We From Potable Reuse? - Federica Piras, University of Salento (Italy)	ENCF1#2 - An Innovative Wireless Tool For Reducing Energy Consumption And GHGs Emission Of Water Resource Recovery Facilities - Cecilia Caretti, University of Florence (Italy)	GE#2 - Omics-Based Quantification Methods On The Core Microbiome Of Aerobic Granular Sludge Plants - Hugo Kleikamp, Delft University of Technology (The Netherlands)
DA#3 - Disinfection of Antibiotics Resistant Bacteria In Raw Hospital Wastewater Using Peracetic Acid - Ravi Chhetri, Technical University of Denmark (Denmark)	ENCF1#3 - Impact Of Influent Load On Nitrous Oxide Production In Actual Sewage Treatment Plant - Shuhei Masuda, Akita (Japan)	GE#3 - Biosorption Of Heavy Metals By Extracellular Polymeric Substances From Anammox Granular Sludge - Benedetta Pagliaccia, University of Florence (Italy)
DA#4 - Long-term, Full-scale Tests Of Wastewater Disinfection By Performic Acid Show Promise For Reuse Applications - Patrizia Ragazzo, Gruppo Veritas (Italy)	ENCF1#4 - Modelling A WWTP During Design And Management: OpEx Reduction Of Pero WWTP (Milan Area -- Italy) - Marco Vian, ETC (Italy)	GE#4 - Sialic Acids In The EPS Of "Ca. Accumulibacter" - Sergio Tomas Martinez, Delft University of Technology (The Netherlands)
DA#5 - AMOZONE: A Novel Dynamic Ozonation Model For Prediction Of Bromate Control And Trace Organic Contaminant Removal - Giacomo Bellandi, AM Team (Belgium)	ENCF1#5 - Potential Impact Of Energy-Efficient Ammonia Control On The Carbon Footprint Of Wastewater Treatment Plants - Riccardo Boiocchi, Università degli Studi di Brescia (Italy)	GE#5 - Recovery Of Structural Extracellular Polymeric Substances (sEPS) From Waste Aerobic Granular Sludge: Formation And Characterization Of Hydrogels Properties - Riccardo Campo, University of Florence (Italy)
DA#6 - Disinfection With Peracetic Acid: Understanding The Impact Of Solids Accumulation And Sunlight Irradiation - Mahmoud ElHalwagy, University of Western Ontario (Canada)	ENCF1#6 - Technological Solutions For The Reduction Of Energy Consumption And The Minimization Of Carbon Footprint Of The Largest Italian WWTP - Armando Quazzo, SMAT (Italy)	GE#6 - A Biorefinery Approach For Recovering Resources From Aerobic Granular Sludge - Philippe Wilfert, Delft University of Technology (The Netherlands)
DA#7 - Novel Photocatalysts Based On Zinc Oxides For The Simultaneous Disinfection And Decontamination Of Water - Ilaria Berruti, Plataforma Solar de Almeria (Spain)	ENCF1#7 - Alpha Factor And OUR Driven Design Concept For OPEX Saving - Marcel Huijboom, INVENT (Germany)	
DA#8 - Evaluation Of Organic Matter Removal By Intermittent Contact Oxidation In Model Sewers Installed With Microbial Media - Hiroyasu Satoh, University of Tokyo (Japan)		

SESSION DAY BY DAY PROGRAM | Wednesday, June 23rd | MID SESSION (h.15:15 – 16:45)

CONTAMINANTS OF EMERGING CONCERN 1 (CEC1) External chair: Luca Vezzaro, Denmark Technical University	CIRCULAR ECONOMY 1 (CE1) External chair: Jean-Philippe Steyer, INRAE	FROM LAB- TO FULL-SCALE (L2F) External chair: Giorgio Bertanza, University of Brescia
CEC1#1 - Predicting The Fate Of Pharmaceuticals In Integrated Urban Wastewater Systems - Marco Gabrielli, Polytechnic University of Milan (Italy)	CE1#1 - Novel Approach For Polyhydroxyalkanoates (PHAs) Production From Pure Culture And Bio-based Volatile Fatty Acids (VFAs) - Nicola Frison, University of Verona (Italy)	L2F#1 - Membrane Aerated Biofilm Reactor, A New Paradigm Towards Sustainable An Eco-Friendly Municipal Wastewater Treatment: Results From Full- And Demo-scale Plants - Giuseppe Guglielmi, Suez (Italy)
CEC1#2 - Comparing The Fate Of Organic Micropollutants In Novel And Conventional Sewage Treatment Plants Through A Mechanistic Empirical Model - Anton Taboada Santos, University of Santiago de Compostela (Spain)	CE1#2 - Impact of Nutrient Limitation on the Selection of PHA Accumulating Phototrophic Mixed Cultures - Bruno Pereira, New University of Lisbon (Portugal)	L2F#2 - Upgrading Actions For Livorno Oil Refinery In Order To Enhance Its Water Resiliency - Andrea Capriati, Golder (Italy)
CEC1#3 - Fresh-Cut Wastewater Reclamation By Solar Processes And Reuse In Agriculture: Assessment Of Chemical And Microbial Risks Of Raw-Eaten Crops - Leila Samira Nahim Granados, Plataforma Solar de Almeria (Spain)	CE1#3 - Bioacidification: A Fermentative Process To Recover Energy, Phosphorus And Iron - Younes Bareha, INRAE (France)	L2F#3 - Electro-Oxidation Of Poly- And Perfluoroalkyl Substances In Groundwater Using Boron-Doped Diamond Electrodes: Laboratory Testing To Scale-up And Cost Estimate Full-scale System - Valerie Leveille, Golder (Canada)
CEC1#4 - Human Health And Aquatic Environment Impact Assessment Of Micropollutants Released By Wastewater Treatment Plants Thanks To A Life Cycle Assessment Approach At French Scale - Dominique Patureau, INRAE (France)	CE1#4 - PHA Production Using Fermented Wastewater From A Sweets Manufacturing Industry Rich In Lactate And Ethanol - Catarina Rangel, New University of Lisbon (Portugal)	L2F#4 - Long-term Validation And ETV Of SCENA System - Vincenzo Conca, University of Verona (Italy)
CEC1#5 - Predictive Models Of The Removal Efficiency Of Emerging Micropollutants In Conventional Wastewater Treatment Plants - Arianna Azzellino, Polytechnic University of Milan (Italy)	CE1#5 - Optimization Of Volatile Fatty Acid Production From Sewage Sludge And External Organic Waste: pH Effect And Microbial Community Dynamics - Isaac Owusu Agyeman, KTH Royal Institute of Technology (Sweden)	L2F#5 - Simultaneous Removal Of Carbon, Nitrogen And Phosphorus In Continuous Single-Stage Moving Bed Biofilm Reactors (MBBRs) Under Microaerobic And Intermittent Aeration Conditions - Francesco Di Capua, Polytechnic University of Bari (Italy)
CEC1#6 - Removal Of Contaminants Of Emerging Concern In The Wastewater Treatment Plants And Residual Environmental Risk - Camilla Di Marcantonio, Sapienza University of Rome (Italy)	CE1#6 - Start-Up Of The VFA Production From Waste Sludge At The Municipal WWTP Of Sesto San Giovanni - Matteo Grana, Polytechnic University of Milan (Italy)	L2F#6 - Development Of An XGBoost-Based Soft Sensor For Wastewater Monitoring - Phoebe Ching, Hong Kong University of Science and Technology (Hong Kong)
CEC1#7 - Evaluation Of The Release Of Microorganisms In A Surface Water Body At A Catchment Scale - Andrea Ghirardini, University of Ferrara (Italy)	CE1#7 - Market Potential For The Recovery Of Carbon Based Elements from Wastewater - WoW! - Inka Hobus, WiW (Germany)	L2F#7 - Comparative Analysis Of The Operational Savings Of Thermal Hydrolysis For A Mid-size Wastewater Treatment Plant - Alejandro Jimenez Galindo, Cambi (Norway)
CEC1#8 - Development Of A ANN-Based Fluorescence Soft-Sensor For Predicting Micropollutants In Tertiary-Treated Municipal Wastewater: Application To The O ₃ /H ₂ O ₂ Process - Maria Rita Spadaro, University of Catania (Italy)	CE1#8 - Polyhydroxyalkanoates Production from Fermented Domestic Wastewater Using Phototrophic Mixed Cultures - Juliana Almeida, New University of Lisbon (Portugal)	L2F#8 - Granulation Strategies Applied To Industrial Wastewater Treatment: From Lab To Full Scale - Jan Dries, University of Antwerp (Belgium)

SESSION DAY BY DAY PROGRAM | Thursday, June 24th | MID SESSION (h.15:15 – 16:45)

CASE STUDIES (CS) External chair: Carmen Teodosiu, Technical University of Iasi	CIRCULAR ECONOMY 2 (CE2) External chair: Maria Reis, Universidade Nova de Lisboa	ENERGY NEUTRALITY AND CARBON FOOTPRINT 2 (ENCF2) External chair: Francesco Fatone, Marche Polytechnic University
CS#1 - Full-Scale Sampling Of MBBR And HYBAS In Municipal WWTP Reveals Improved Micropollutants Biodegradation Compared To Activated Sludge - Brandy Nussbaum, Veolia (Sweden)	CE2#1 - Hydrothermal Carbonization Of Sewage Sludge: An Integrated Modelling Study - Riccardo Gori, University of Florence (Italy)	ENCF2#1 - LESSWATT Model-Based Protocol For Mitigation Of N ₂ O Emissions - Saba Daneshgar, University of Ghent (Belgium)
CS#2 - Municipal Wastewater Treatment: Improving Emerging Pollutants Removal, Sludge Production Reduction And Odour Emissions Mitigation - Valerio Guido Altieri, IRSA-CNR (Italy)	CE2#2 - Renewable Energy From Real Concentrated Municipal Wastewater By Forward Osmosis Membrane - Soraya Zahedi, Catalan Institute for Water Research (Spain)	ENCF2#2 - Long-Term Effect Of Organics On N ₂ O Emissions From One-Stage Partial Nitritation-Anammox Reactor - Xijun Wan, University of Ghent (Belgium)
CS#3 - Micropollutant Load Of Industrial Wastewater Treatment Plant And Evaluation Of Impact On The Receiving Water Body - Laura Palli, SIDA (Italy)	CE2#3 - Demonstration Of The Thermal Valorisation Of Dried Sludge Through Combustion Over A Flat Moving Grate - Marco Giampiccolo, VOMM (Italy)	ENCF2#4 - An Energy-Saving Direction For Wastewater Management: Application Of In-Sewer Purification Technology - Tip Sotelo, University of Tokyo (Japan)
CS#4 - Analysis Of The Variation Of Costs for Sludge Transport, Recovery And Disposal In Northern Italy - Marta Domini, University of Brescia (Italy)	CE2#4 - Study Of Bioelectricity Generation Using Biofilters Coupled To Microbial Fuel Cells Treating Domestic Wastewater - Cristina Villamar, University of Santiago de Chile	ENCF2#4 - Using Artificial Intelligence For Water Utility-Level Nitrous Oxide Reduction And Net Zero Emissions Targets - Jose Porro, Cobalt Water (USA)
CS#5 - On-Site Nitrogen And Carbon Upcycling From Anaerobic Digestion Through Microbial Protein Production: A Case Study - Silvio Matassa, University of Naples 'Federico II' (Italy)	CE2#5 - Slow Co-Pyrolysis Of Sewage Sludge And Microalgae: Feasible Alternative To Disposal? - Silvia Bolognesi, University of Girona (Spain)	ENCF2#5 - Sludge Lagoons As An Overlooked Source Of Methane And Nitrous Oxide Emissions In Wastewater Treatment - Sarah Aucote, University of Queensland (Australia)
CS#6 - Stripping And Thermal Valorization Of Ammonia From Livestock Manure Digestate - Giorgio Bertanza, University of Brescia (Italy)	CE2#6 - Understanding Antioxidant Recovery and Water Reuse in a Cascade Membrane Treatment Scheme from Winery Effluents - Alba Pedrouso, CETAQUA (Spain)	ENCF2#6 - Aeration Optimization For Activated Sludge Processes: Measurements Reliability And Adaptation To All Plant Configurations - Marie Inizan, HACH (France)
CS#7 - Optimizing The Operation Of Self Forming Dynamic MBR For Wastewater Treatment: 5 Years Of Bench Scale Tests - Pompilio Vergine, IRSA-CNR (Italy)	CE2#7 - Municipal Wastewater Treatment: Heat Recovery And Water Reuse - Claudio Di Iaconi, IRSA-CNR (Italy)	ENCF2#7 - Normalized Approach For Carbon Footprint Determination In Wastewater Treatment Service - Enrico Marinelli, Marche Polytechnic University (Italy)
CS#8 - Aerosol Emission From WWTP: A Case Of Study - Eleonora Pasinetti, SIAD (Italy)	CE2#8 - Fertilizer-Drawn Forward Osmosis For Sustainable Greywater Reuse In Touristic Mediterranean Regions - Esther Mendoza, Catalan Institute for Water Research (Spain)	

SESSION DAY BY DAY PROGRAM | Friday, June 25th | OPENING SESSION (h.13:30 – 15:00)

CONTAMINANTS OF EMERGING CONCERN 2 (CEC2) External chair: Marta Carballa, Universidade de Santiago de Compostela	CIRCULAR ECONOMY 3 (CE3) External chair: Raul Munoz, University of Valladolid	PROCESS MODELLING AND OPTIMIZATION 1 (PMMO1) External chair: Peter Vanrolleghem, Université Laval
CEC2#1 - Cometabolic Microbial Activity Affects Organic Micropollutants' Biotransformation Kinetics - David Kennes Veiga, University of Santiago de Compostela (Spain)	CE3#1 - Ammonium Recovery From Agro-industrial Digestate Using Bioelectrochemical Systems - Giulia Puggioni, University of Cagliari (Italy)	PMMO1#1 - Advanced CFD, Making The Difference In Process Design, Optimization And Scale-up: 3 Case Studies - Cilia De Wilde, AM Team (Belgium)
CEC2#2 - Removal of Organic Micropollutants By High-Silica Zeolite Granules And Ozone-Based Regeneration - Mingyan Fu, Delft University of Technology (The Netherlands)	CE3#2 - Recovery Of Metals From Sludge Through An Innovative Anaerobic Bioleaching Approach - Barbara Tonanzi, Sapienza University of Rome (Italy)	PMMO1#2 - Model-Based Evaluation Of An Integrated High-Rate Activated Sludge And Mainstream Anammox System - Mingsheng Jia, Ghent University (Belgium)
CEC2#3 - Elimination Of Antibiotic And Antimicrobial Resistance Genes (ARGs) From Pharmaceutical Production Wastewater By Ionizing Radiation - Libing Chu, Tsinghua University (China)	CE3#3 - Simultaneous Recovery Of Phosphorus And Organic Matters From Sludge Digestion Liquor Via An Innovative Adsorption Route - Hanlu Yan, Nanjing Hydraulic Research Institute (China)	PMMO1#3 - Conventional And Advanced Process Control Strategies In A Full-Scale Wastewater Treatment Plant - Giorgio Bertanza, University of Brescia (Italy)
CEC2#4 - Micropollutant Removal by Combining Two Disinfection Applications in an Advanced Oxidation Process - Katriina Rajala, Kemira (Finland)	CE3#4 - Quick Start-Up Of A Novel Purple Photosynthetic Bacteria-Based Anaerobic Raceway At Pilot Scale For Resource Recovery From Mixed Urban Biowaste Sources - Daniel Puyol, Rey Juan Carlos University (Spain)	PMMO1#4 - Comparison Of Statistical Process Control Based Fault Detection Methods Applied To The Wastewater Treatment Process - Heidi Marais, Mälardalen University (Sweden)
CEC2#5 - Pesticides Removal By Trickle-Bed Reactor With Trametes versicolor Immobilized On Pine Wood In Sequencing Batch Mode - Kaidi Hu, Universitat Autònoma de Barcelona (Spain)	CE3#5 - Phosphorus Recovery From Sewage Sludge Ashes By Chemical Extraction: Influence Of Operating Conditions - Gaia Boniardi, Polytechnic University of Milan (Italy)	PMMO1#5 - An Essential Tool For WRRF Modelling And Control: Influent Generator Based On Advanced Data-Driven Methodologies - Feiyi Li, Université Laval (Canada)
CEC2#6 - Anaerobic Degradation Of Persistent Pollutants Using Bio-Reduced Graphene Oxide - Michele Ponzelli, Catalan Institute for Water Research (Spain)	CE3#6 - Microalgal Technology For Turning Wastewater Into Added-Value Agricultural Products - Maja Berden Zrimec, AlgEn (Slovenia)	PMMO1#6 - Model Predictive Control Using An On-line Connected Digital Twin Of A Wastewater Treatment Plant In Sweden - Christian Wallin, ABB (Sweden)
CEC2#7 - Removal Of Contaminants Of Emerging Concern Using Powdered Activated Carbon For The Enhancement Of MBRs Treating Wastewater - Marina Gutierrez, University of Ferrara (Italy)	CE3#7 - Coupling Microalgae And Microbial Fuel Cells: Performance Analysis With Synthetic And Dairy Wastewater - Silvia Bolognesi, University of Girona (Spain)	PMMO1#7 - Characterization And Control Of Membrane Fouling During Dewatering Of Activated Sludge Using A Thin Film Composite Forward Osmosis Membrane - Nguyen Duc Viet, Sungkyunkwan University (Republic of Korea)
	CE3#8 - Laboratory and Pilot Scale Microalgae Application for the Treatment and Valorisation of Real Textile Wastewater - Valeria Mezzanotte, University of Milan Bicocca (Italy)	PMMO1#8 - Smart Monitoring And Modelling To Enhance Treatment And Reuse Of Highway Stormwater - Martina Favarin, Cà Foscari University of Venice (Italy)

SESSION DAY BY DAY PROGRAM | Friday, June 25th | MID SESSION (h.15:15 – 16:45)

CONTAMINANTS OF EMERGING CONCERN 3 (CEC3) External chair: Gianluigi Buttiglieri, ICRA	CIRCULAR ECONOMY 4 (CE4) External chair: Nicola Frison, University of Verona	PROCESS MODELLING AND OPTIMIZATION 2 (PMMO2) External chair: Domenico Santoro, USP Technologies
CEC3#1 - Mitigation Of Antibioresistance Dissemination Through The Comprehensive Optimization Of Sludge Treatment - Dominique Patureau, LBR-INRA (France)	CE4#1 - The Multi-Sectoral Water Circularity Assessment (MSWCA) Framework - Eliza Nika, Brunel University (United Kingdom)	PMMO2#1 - Development Of A Soft-Sensor For Real-time Estimation Of E. Coli Concentration At The Inlet Of Wastewater Disinfection - Jacopo Foschi, Polytechnic University of Milan (Italy)
CEC3#2 - New Insights Into The Effects Of Polypropylene Microplastics On Anaerobic Processes - Alessia Foglia, Marche Polytechnic University (Italy)	CE4#2 - Turning Wastewater Treatment Plants Into Biorefineries: Global Value Chain From Bioresources To Valuable Products - Alvaro Mayor, CETAQUA (Spain)	PMMO2#2 - Techno-Economic Appraisal Of Ion Exchange Processes For Ammonia And Phosphorus Removal And Recovery From Municipal Wastewater - Ana Soares, Cranfield University (United Kingdom)
CEC3#3 - A Novel Methodology For Micro-(bio)plastics Extraction And Quantification In Sludges - Federica Ruggero, University of Florence (Italy)	CE4# - Need For Holistic (And Reliable) Assessment Procedures To Compare Alternative Resource Recovery Solutions - Giorgio Bertanza, University of Brescia (Italy)	PMMO2#3 - Environmental Performances Assessment Of Synthesis And Testing Of Silica/(PEI) Composite Microparticles Used For Heavy Metal Ions Removal From Wastewater - George Barjoveanu, Technical University of Iasi (Romania)
CEC3#4 - Wastewater Treatment Plants Facing Microplastic Pollution: Water and Sludge Lines Global Assessment - Thibaut Saur, Suez (France)	CE4#4 - Feasibility Study Of Circular Economy In The Water And Wastewater Industry - Matia Ghafourian, Brunel University (United Kingdom)	PMMO2#4 - Application Of Hybrid Principal Component Analysis-Artificial Neural Network To Predict Daily Digested Sludge Production In Full-scale Wastewater Treatment Plant - Messaoud Djeddou, Larbi Ben M'Hidi University (Algeria)
CEC3#5 - Occurrence Of Per- And Polyfluoroalkyl Substances (PFAS) In An industrial Wastewater Treatment Plant: Preliminary Results - Roberta Salvetti, Consulenze Ambientali (Italy)	CE4#5 - Can Wastewater Treatment Plant Become A Resource? The Example Of Agricultural Reuse Of Mancasale Wastewater (RE) - Guido Bonello, IREN (Italy)	PMMO2#5 - Proactive Management Of WWTP Activated Sludge Based On Image Recognition By Machine Learning - Yu Tao, Harbin Institute of Technology (China)
CEC3#6 - Landfill Leachate Treatment Plant For PFAS Removal - Federica Arlati, Greenthesis Group (Italy)	CE4#6 - Comprehensive Comparison Between Chemically Enhanced Primary Treatment And High-rate Activated Sludge For Organic Matter Recovery In Novel Sewage Treatment Plant Configurations - Anton Taboada Santos, University of Santiago de Compostela (Spain)	PMMO2#6 - Conductivity Based Dynamic Control Of The Anaerobic Step In An EBPR AGS SBR Treating Dairy Wastewater - Flinn De Vleeschauwer, University of Antwerp (Belgium)
CEC3#7 - Modelling The Breakthrough Of PFAS In GAC Filters Using UV Absorbance And EEM-fluorescence - Massimiliano Sgroi, Marche Polytechnic University (Italy)	CE4#7 - Anaerobic Domestic Wastewater Treatment In A Sequencing Granular Bioreactor: Feasibility Study And Strategies For Maximization Of Methane Reuse/Recovery - Maria Concetta Tomei, Sapienza University of Rome (Italy)	PMMO2#7 - Quantifying Environmental Performance Of Volatile Fatty Acid Production From Dairy Wastewater - Nilay Iginoz, KTH Royal Institute of Technology (Sweden)

POSTER SESSION 1 (PS1) | Tuesday, June 22nd | h.17:00 – 18:30

POSTER SESSION 1 (PS1) ROOM A - Integrated Assessment	
PS1 #1 - Integrated Assessment Of Sulfate-based AOPs For Pharmaceutical Active Compounds Removal From Wastewater - Luca Sbardella, ICRA (Spain)	
PS1 #2 - Risk Assessment Based Prioritization Of Pharmaceuticals Of Major Concern In The Ebro Delta (Spain) - Mira Celic, Catalan Institute for Water Research (Italy)	
PS1 #3 - Combined Sewer Overflows: Regional Assessment And Mitigation Measures - Paolo Crocetti, Marche Polytechnic University (Italy)	
PS1 #4 - A Review On Environmental Impact Of Dairy Wastewater Treatment And The Prospect For P-Recovery From An LCA Perspective - Marta Behjat, Chalmers University (Sweden)	
PS1 #5 - Evaluation Of The Main Anthropic Pressures Persisting On The Regi Lagni Canal And Their Impact On The Bathing Water Microbiological Quality At Its Mouth - Flavia Occhibove, ARPA Campania (Italy)	
PS1 #6 - BoDEREC- CE: Board For Detection And Assessment Of Pharmaceutical Drug Residues In Drinking Water - Capacity Building For Water Management In Central Europe - Beatrice Bertolo, ADBPO (Italy)	
PS1 #7 - Removal Of Contaminants From Wastewaters By Adsorption Processes: A Circular Economy Approach - Bianca Marino, Polytechnic University of Milan (Italy)	
PS1 #8 - Wastewater Treatment Plants As Support For The Collection Of MPs: The Case Study Of The Treatment Plant In The City Of Potenza - Pasquale Baldantoni, University of Basilicata (Italy)	
PS1 #9 - A New Treatment System For Wastewater Coming From The Production Unit Of Electronic Microchips - Andrea Capriati, Golder (Italy)	
PS1 #10 - Rethinking The Wastewater System In Lima To Enhance Circularity And Resilience - Andrea Joel Torre Garcia, Pontificia Universidad Católica del Perú (Perù)	

POSTER SESSION 1 (PS1) ROOM B - Innovative Biological Solutions	
PS1 #11 - Contribution To Nitrous Oxide Production In Sewage Treatment Plant: Potential Versus Temporary Condition - Makku Kusanagi, Akita (Japan)	
PS1 #12 - A New Solution For An Effective And Unexpensive Biological Wastewater Treatment - Sirio Vurro, Eco-sistemi (Italy)	
PS1 #13 - Optimizing Anaerobic Co-Digestion In An Existing Wastewater Treatment Plant - Karin Florencio Perez, Sorigue (Spain)	
PS1 #14 - Design And Implementation Of A Protocol For Conducting Respirometric And Titrimetric Tests On A Sulphide-Oxidizing Nitrate-Reducing (SO-NR) Microbial Community - Serena Falcioni, University of Florence (Italy)	
PS1 #15 - Combining A Methanogenic Moving Bed Biofilm Reactor With A Microalgae Sequencing Batch Reactor For Medium-Strength Dairy Wastewater Treatment - Stasinakis, University of the Aegean (Greece)	
PS1 #16 - Modelling Phosphorus Dissolution During Fermentative Processes: Case Of Bioacidification - Younes Bareha, INRAE (France)	
PS1 #17 - Biodegradability And Biomethane Generation Of Wild Halophytic Species - Tareq Amen, University of Kitakyushu (Japan)	
PS1 #18 - Effect Of A Substrate Shift In The Accumulation Reactor Of A Three-Stage PHA Production Process By A Mixed Microbial Culture - Catarina Rangel, Universidade Nova de Lisboa (Portugal)	
PS1 #19 - Harnessing Protists For The Control Of Waterborne Human Viruses In Wastewater - Margot Olive, École Polytechnique Fédérale de Lausanne (Switzerland)	
PS1 #20 - Microalgal Treatment Of The Liquid Fraction From HTC Process In A Circularity Perspective - Marco Mantovani, University of Milano Bicocca (Italy)	
PS1 #21 - Shortcut Biological Nitrogen Removal As Energy Saving Strategy For Landfill Leachate Treatment: A Full Scale Study - Laura Palli, GIDA (Italy)	

POSTER SESSION 2 (PS2) | Thursday, June 24th | h.17:00 – 18:30

POSTER SESSION 2 (PS2) ROOM C - NBS and Decentralized Treatments
PS2#1 - Use Of The Halophyte <i>Atriplex Halimus</i> In Green Roofs For Greywater Treatment Under Mediterranean Climatic Conditions - Michail Fountoulakis, University of the Aegean (Greece)
PS2#2 - <i>Larrea Tridentata</i> As A Natural Resource For Agricultural Wastewater Disinfection - Bertha Alicia Rivas Lucero, Universidad Autónoma de Chihuahua (Mexico)
PS2#3 - Use Of Climbing Plants In Vertical Flow Constructed Wetlands For Greywater Treatment In Buildings: Preliminary Results - Michail Fountoulakis, University of the Aegean (Greece)
PS2#4 - Impacts Of Septicity On Wastewater Treatment - Julen Mendizabal, Cranfield University
PS2#5 - Pollutant Removal In On-Site Greywater Treatment Systems - Mashreki Sami, Luleå University of Technology (Sweden)
PS2#6 - Resource Efficiency Improvement By Wastewater Source Separation: A Simplified Approach - Jonas Kleckers, Münster University of Applied Sciences (Germany)
PS2#7 - HYDROUSA Project Solutions Towards Water Scarcity Mitigation And Organic Micropollutants Evaluation For Safe Water Reuse - Marc Castano Trias, ICRA (Spain)

POSTER SESSION 2 (PS2) ROOM D - Innovative Chemical-Physical Solutions
PS2#8 - Preliminary Investigation On Regeneration Of Granular Activated Carbon Saturated With PFOS Through Microwave Irradiation - Erica Gagliano, University of Catania (Italy)
PS2#9 - Liquid Waste Treatment By Fenton-Like Process Over Copper Based Catalyst - Sajid Hussain, University of Udine (Italy)
PS2#10 - Applications Of Photoelectrocatalysis On TiO ₂ Meshes As Polishing Treatment For Wastewaters - Silvia Franz / Marco Carnevale Miino, University of Pavia (Italy)
PS2#11 - Enlargement Of The Oxidative Capacity Of Iron Nanoparticles By The Addition Of Oxalate To Efficiently Remove Ciprofloxacin From Water - Omar Falyouna, Kyushu University (Japan)
PS2#12 - Removal Of The Emerging Contaminant Of Acetaminophen By Ferrous-Activated Advanced Oxidation Processes In The Presence Of Co-Dissolved Natural Organic Matters - Chihhao Fan, National Taiwan University (Taiwan)
PS2#13 - OxTube Integrated Water Solution For Removing Pharmaceutical Residues - Juhani Pykkänen, SansOx (Switzerland)
PS2#14 - Environmental Indicators In The Synthesis Of ZnO Photocatalysts Doped With Ag Nanoclusters - Jorge Gonzalez Rodriguez, University of Santiago de Compostela (Spain)

POSTER SESSION 2 (PS2) ROOM E - Monitoring, Control and Optimization
PS2#15 - Advanced Control Of The Purification Process: Advantages And Disadvantages, The Operational Experience Of IRETI - Francesca Saggionetto, IREN (Italy)
PS2#16 - Automated Decision Tree For WWTPs Management, An Innovative Algorithm To Support Water Utilities - Debora Agarossi, ETC (Italy)
PS2#17 - Modelling Assisted Management In A Municipal WWTP Coping With Seasonal Industries And Sludge Disposal Regulations – Luca Pucci, Gori (Italy)
PS2#18 - Achieving Tighter Phosphorus Limits: Controlling Phosphorus And Suspended Solids To Ensure Compliance - Marie Inizan, HACH (France)
PS2#19 - A Novel Method For Quantification And Simultaneous Identification Of Small Microplastics (<100 Mm) In Highway Stormwater Runoff - Beatrice Rosso, University of Venice 'Cà Foscari' (Italy)
PS2#20 - The Swerm® System For Spills Detection And Management. A Real Case Application In Highways - Luca Morello, SWI Group (Italy)