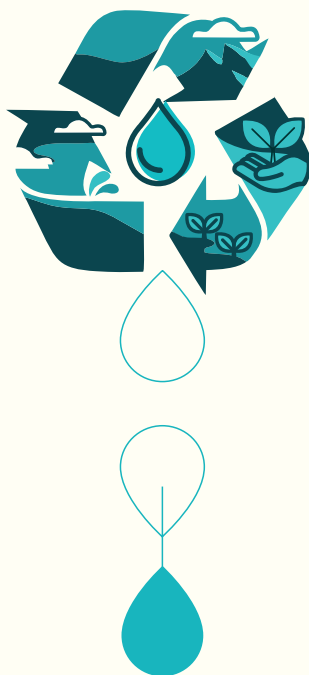


P R O G R A M M E

W A T E R

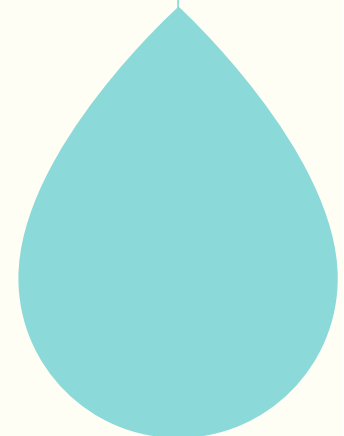
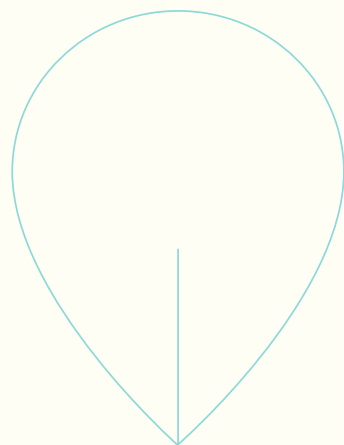
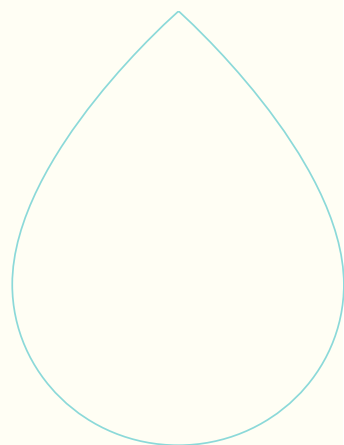
Innovation & Circularity
CONFERENCE (WICC)

7-9 June 2023 | Athens, Greece



ORGANISED BY





WELCOME

The Hellenic Water Association together with the Sanitary Engineering Laboratory of the Department of Water Resources and Environmental Engineering of the School of Civil Engineering of the National Technical University of Athens (NTUA) are delighted to welcome you to the Water Innovation and Circularity Conference (WICC). The Conference brings together experts, researchers and engineers to share information on circular water management systems and technologies and exchange knowledge and experience about innovative nature-based solutions.

The Water Innovation and Circularity Conference will cover a wide range of themes from innovative and nature-based solutions for water and wastewater management to circularity assessment tools and environmental policy and legislation.

CONFERENCE CHAIRS



Simos Malamis

is an Associate Professor at the School of Civil Engineering of the NTUA. He is the coordinator of the HORIZON2020 Project HYDROUSA. His research interests include biological nutrient removal, decentralised wastewater management, membrane processes and nature-based solutions.



Costas Noutsopoulos

is a Professor at the School of Civil Engineering of the NTUA. His areas of expertise include mathematical modelling of biochemical processes, circular economy and resources recovery, assessment of the fate of micropollutants in wastewater treatment plants and wastewater management.





OUR SUPPORTERS

GOLDEN SPONSOR



SILVER SPONSORS



SPONSORS



KEYNOTE SPEAKERS

Günter Langergraber



Is currently the Head of the Department of Water, Atmosphere, and Environment at University of Natural Resources and Life Sciences, Vienna (BOKU), Co-Chair of the IWA -Strategic Council Sub-Committee for Specialist Groups (SC2SG). His research focuses on nature-based solutions, resources-oriented sanitation, and circularity in urban water management. As chair of the COST Action Circular City (<https://circular-city.eu/>), he leads a multidisciplinary network of over 600 researchers from more than 40 countries.

Niki Frantzeskaki



is a Chair Professor of Regional and Metropolitan Governance and Planning, Section Spatial Planning, Geosciences Faculty, Utrecht University, the Netherlands. Her expertise is on urban transitions and transformations, their governance and planning, with a focus on achieving climate change adaptation and mitigation, sustainability, and resilience. Her research focuses on the governance and planning of nature-based solutions for contributing to climate change resilience and more just urban futures.

Evdokia Achilleos



is a Head of Sector in the European Research Executive Agency (REA), Unit «B3- Biodiversity, Circular Economy and Environment», which implements part of Horizon Europe and H2020 programs. Evdokia has been working for 12 years in the European Commission, first in Water Policy and then for Research Programs in the fields of water, circular/bio economy, and zero-pollution. Her education is in Chemical Engineering, and she has BSc from Penn State University and an MA and PhD from Princeton University.





SCIENTIFIC COMMITTEE



Mamais Daniel	National Technical University of Athens, Greece
Al-Salehi Maha	Semide, France
Buttiglieri Gianluigi	The Catalan Institute for Water Research, Spain
Chazarenc Florent	French National Institute for Agriculture, Food and Environment, France
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Fatone Francesco	Polytechnic University of Marche, Italy
Fayez Saber	Heliopolis University, Egypt
Fountoulakis Michael	University of the Aegean, Greece
Gikas Petros	Technical University of Crete, Greece
Jaouani Atef	University of Tunis El Manar, Tunisia
Karahan Özlem	Istanbul Technical University, Turkey
Katsou Evina	Brunel University, UK
Kisser Johannes	Alchemia nova, Austria
Langergraber Günter	University of Natural Resources and Life Sciences, Austria
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Makropoulos Christos	National Technical University of Athens, Greece
Masi Fabio	Iridra, Italy
Mino Eric	Semide, France
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Rizzo Anacleto	Iridra, Italy
Rodriguez Sara	The Catalan Institute for Water Research, Spain
Skoullou Michael	University of Athens, Greece
Tsiropoulos Zisis	Agensso, Greece
Xevgenos Dimitris	Delft University of Technology, Netherlands

ORGANISING COMMITTEE



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Koukoura Asimina	University of the Aegean
Moustakas Konstantinos	National Technical University of Athens
Rubini Andrea	Water Europe
Seintos Taxiarchis	National Technical University of Athens
Statis Evangelos	National Technical University of Athens
Tadej Stepisnik	National Technical University of Athens
Tsatsou Alexandra	National Technical University of Athens

TOPICS



Innovative solutions for water management	Environmental policy and legislation
Innovative solutions for wastewater management	Nutrient recovery/removal
Nature-based solutions for water/wastewater management	Environmental microbiology and population dynamics
Rainwater harvesting solutions	On-site treatment systems
Technologies for resource recovery from water/wastewater	Case studies concerning the application of innovative and circular water systems
Decentralized water/wastewater Treatment and management systems	Anaerobic and aerobic biological treatment processes
Water reuse, recycling and conservation towards Sustainable Development Goals	Biogas upgrade technologies
Sludge treatment and reuse	Circularity assessment tools
Hospital wastewater management	Fate and removal of emerging contaminants
	Economic evaluation of water and wastewater systems



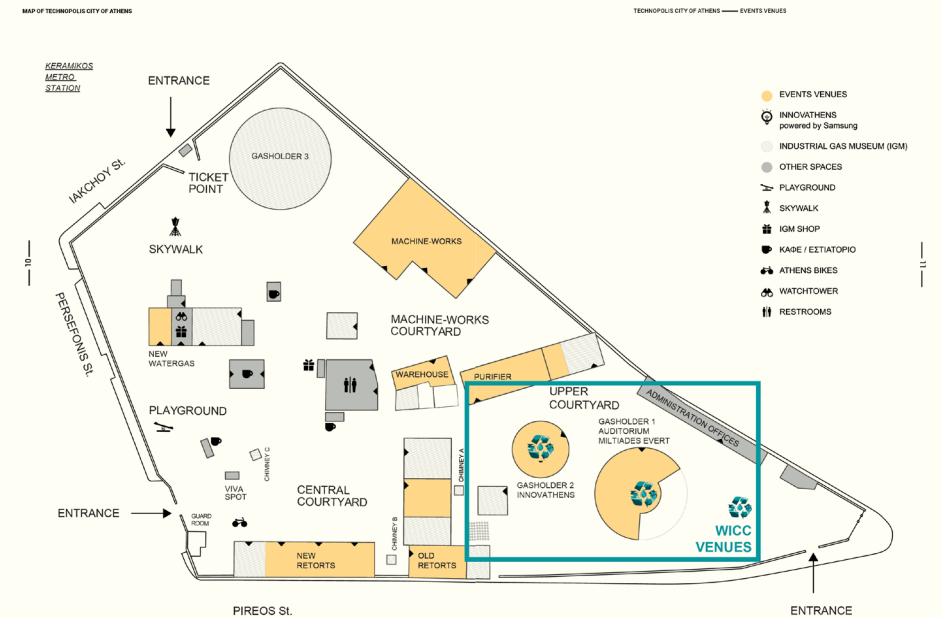
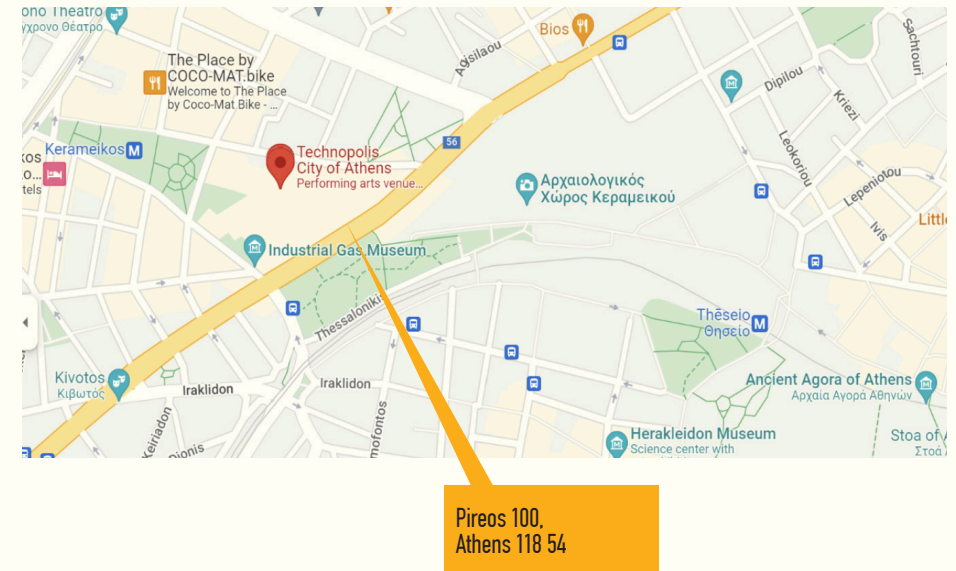


THE CONFERENCE VENUE

Technopolis City of Athens, Gazi

The conference is taking place in Athens, which is the largest city and the capital of Greece. It is one of the world's oldest cities, with its recorded history spanning around 3,400 years. Classical Athens was a powerful city-state, a centre for the arts, learning and philosophy, home of Plato's Academy and Aristotle's Lyceum. Athens is a large cosmopolitan metropolis and central to the economic, industrial, maritime, political and cultural life in Greece. The urban area of Athens (Greater Athens and Greater Piraeus) has a population of approximately 4 million over an area of 412 km². It is well connected as there are direct flights from many European cities.

The venue will be held at the Technopolis of Athens, located in the centre of the city (Gazi area). This was formerly the Athens gasworks, which powered the city from the mid-19th century and ground to a halt in the 1980s. The industrial complex and grounds were converted into an arts venue by the Athens Municipality in 1999. Today, Technopolis is one of Athens' largest and most vibrant cultural venues, attracting more than 900,000 visitors each year. A high number of seminars and workshops dedicated to new technologies, initiatives for the development of entrepreneurship and innovation and events of social nature as well as exhibitions performances, screenings, educational programs and actions of the Industrial Gas Museum, are hosted every year in Technopolis of Athens.





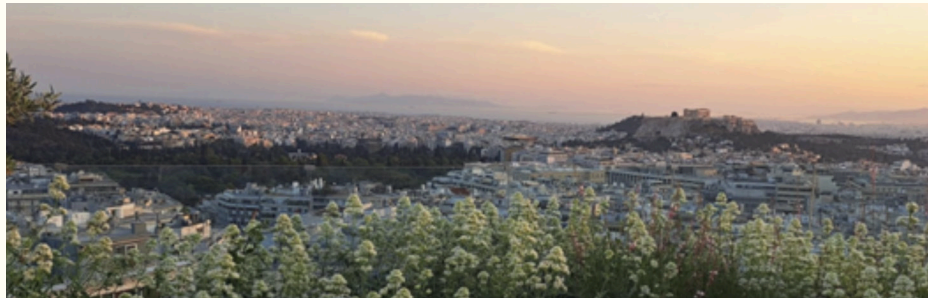
SOCIAL ACTIVITIES

WELCOME COCKTAIL

When: Wednesday, 7th June 2023, 18:30 - 20:00

Place: Technopolis, Gazi (Conference Venue)

Enjoy the welcome cocktail that will take place at the Conference Venue at the evening of the first day of the Conference.



THE GALA DINNER NIGHT

When: Thursday, 8th of June 2023 20:00 - 23:00

Place: St. George Lycabettus Rooftop Restaurant

Address: Kleomenous 2, Athina 106 75

Phone: +30 210 741 6000

Nestled against the pine-forested slopes of Lycabettus Hill, the St. George Lycabettus Lifestyle Hotel Rooftop Restaurant affords breathtaking panoramic views over Athens to the Acropolis and the Saronic Gulf beyond.



THE ACROPOLIS MUSEUM GUIDED TOUR

When: Friday, 9th of June 2023 18:30 - 20:00

Place: Acropolis Museum, Dionisiou Areopagitou 15, Makrigia

Participants are invited to join the guided tour to the Acropolis museum. The Museum opened to the public on 20 June 2009. More than 4,250 objects are exhibited over an area of 14,000 square metres. The Acropolis Museum was founded to exhibit all the significant finds from the Sacred Rock and its foothills. The Museum hosts its collections across three levels, as well as in the archaeological excavation that lies at its foundations.





TECHNICAL TOUR

Technical Tour to HYDROUSA project demonstration sites on Mykonos Island

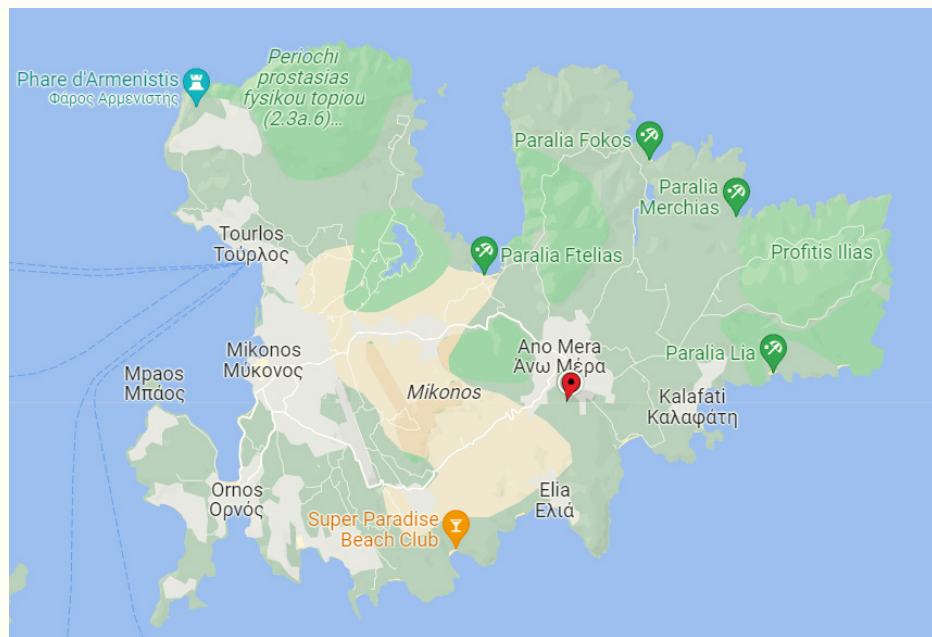
When: Saturday 10th June 2023, Whole day

Place: Mykonos Island

Post-conference technical tour to HYDRO3&4 Nature-Based Solutions in Mykonos.

After the closing of the Water Innovation and Circularity Conference, we will be organising an informal technical tour to the HYDROUSA demo sites of Mykonos Island. All conference attendees are cordially invited to join!

During the tour, you will have the opportunity to visit and to be guided the Nature-Based Solutions (NBS) applied in the island of Mykonos for rainwater/stormwater harvesting and valorization. The duration of the tour is estimated to be around two hours. The WICC committee will arrange your transportation from Mykonos port and airport to the site (Ano Mera village) and back.



Technical Tour Schedule

Time	Location
10:00-12:00	Pick up service from port and airport
12:30-14.30	Guided tour in HYDRO3&4 demonstration sites
14:30	End of the tour, time for questions and refreshments
15:00	Travel back to the Chora of Mykonos, Port and Airport

Please note that attendees are responsible for arranging their own transportation from Athens to Mykonos. Mykonos island can be reached by either plane (Mykonos Airport • JMK) or ferry, departing from either Piraeus Port or Rafina Port. Links for tickets (skyscanner, ferryhopper).

For a more comprehensive understanding of the demo sites, detailed descriptions can be found on the HYDROUSA website (HYDRO3 & HYDRO4).

If you are interested in participating in the tour or have any additional questions, kindly send an email to info@wicc.gr. We will be happy to assist you.





AGENDA

DAY 1 7 JUNE 2023

9:00-10:00

REGISTRATION & WELCOME COFFEE; AUDITORIUM

OPENING SESSION; CHAIRS: S. Malamis, C. Noutsopoulos; Auditorium

10:00-10:40

Opening Statements

Dean of the School of Civil Engineering, Director of the Sanitary Engineering Laboratory

10:40-11:00

Golden Sponsor Presentation

S. Stasinis, HELECTOR

11:00-11:45

Keynote Presentation: Water - The key element in circular city

Günter Langergraber, BOKU University

11:45-12:30

Keynote Presentation: Planning and governance of and with nature-based solutions in cities

Niki Frantzeskaki, Utrecht University

12:30-14:00

LUNCH BREAK & POSTER SESSION

SESSION I / AUDITORIUM
HYDROUSA I; Chairs: D. Mamais, F. Fatone

14:00-14:15

Investigation of the operation of an integrated UASB and subsurface flow constructed wetland system at ambient temperature for the treatment of domestic wastewater in remote areas

T. Seintos, A. Koukoura, E. Stataris, A. Rizzo, R. Bresciani, F. Masi, D. Mamais, C. Noutsopoulos, A. S. Stasinakis, S. Malamis

14:15-14:30

Electroactive and intensified pilot-scale constructed wetlands for the treatment of high loads of septic tank effluent

A. Koukoura, T. Seintos, E. Stataris, D. Mamais, C. Noutsopoulos, F. Masi, A. Rizzo, R. Bresciani, M.S. Fountoulakis, A.S. Stasinakis, S. Malamis

14:30-14:45

Fertigation with UASB-CW reclaimed wastewater in a water scarce area and micropollutant uptake in lettuce plants

S. Semitsoglou Tsiapou, M. Salvoch, N. Montemurro, S. Pérez, E. Stataris, S. Malamis, S. Rodríguez-Mozaz, G. Buttiglieri

14:45-15:00

Impact of treated wastewater irrigation on soil microbial communities

M. Mola, P. Kougias, E. Stataris, P. Papadopoulou, S. Malamis, N. Monokrousos

15:00-15:15

Fate of antibiotic resistant bacteria and genes in a novel nature-based system for wastewater treatment and reuse

M. Kalli, D. Kontogiannatos, C. Noutsopoulos, D. Georgakopoulos, S. Malamis, D. Mamais

15:15-15:30

Replication service tool to assess the feasibility of solutions for alternative water source recovery

L. De Simoni, J. González-Camejo, G. Cipolletta, K. Li, Y. Yang, R. Chen, A.L. Eusebi, F. Fatone

15:30-15:45

Operation of a novel seawater solar desalination system for freshwater recovery

D. Michailaris, S. Malamis, E. Nyktari, N. Kouris, A. Villa, G. Berni, A. Zecca, I. Vasilakos, L. Kotsos

15:45-16:00

Multistage constructed wetlands for agricultural treated wastewater reuse in Class A of EC Regulation 2020/741: insights from the long-term monitoring of HYDRO 1 in Lesvos Island, Greece

A. Rizzo, R. Bresciani, F. Masi, T. Seintos, E. Stataris, A. Koukoura, D. Mamais, C. Noutsopoulos, A.S. Stasinakis, S. Malamis

16:00-16:30

COFFEE BREAK

SESSION II / INNOVATHENS GROUND FLOOR
Wastewater NBS; Chairs: A.I.Stefanakis, G.Langergraber

Use of recycled construction and demolition waste as substrate in hybrid constructed wetlands for the treatment of cheese production wastewater

D. Kotsia, T. Sympikou, E. Topi, M.S. Fountoulakis

Use of biomaterials as innovative media for enhanced pollutants' removal in constructed wetlands

K. Kraiem, S. Bessadok, K. Abid, A. Jaouani

A phototrophic/heterotrophic microbial consortium able to reuse and upcycle dishwasher wastewater in Zero-Mile food production

A. Alabiso, S. Frasca, V. Cantelmo, M. M. D'Andrea, R. Braglia, F. Scuderi, S. Savio, F. Costa, R. Congesti, L. Migliore

Living walls for greywater treatment and reuse in Mediterranean countries: the NAWAMED experience

B. Samari, N. Martinuzzi, R. Bresciani, K. Rivai, R. Cilia, I. Principi, A. Rizzo, F. Masi, L. Bousselmi

Circular bioeconomy and wastewater treatment from coffee process using an innovative vertical treatment wetland

L.D. Diaz, L. Martin Perez, G. Penagos, O.L. Sanchez, J. Morató

Optimization of pilot scale constructed wetlands with gravel, HDPE plastic and biochar for leachate treatment from Chania landfill

I. Asimakoulas, P. Regkouzas, A.I. Stefanakis

HOUSEFUL - demonstration of vertical green wall systems for wastewater treatment and on-site reuse in Austria and Spain

M. Hartl, T. Vobruba, H. Gattringer, T. Centofanti, G. Bertino, J. Kisser

Microalgae consortium growth in different combinations of centrate, primary and secondary effluents from an urban WWTP in Central Italy

J. González-Camejo, L. Mollo, A. Petruccianni, M.G. Chieti, V. Fratesi, C. Gerotto, A.L. Eusebi, F. Fatone, A. Norici

COFFEE BREAK





SESSION III / AUDITORIUM

Water NBS I; Chairs: G. Cirelli, S. Patsios

SESSION IV / INNOVATHENS GROUND FLOOR

Assessment Tools I; Chairs: E. Katsou, E. Nyktari

16:30-16:45

Basin-based analysis of green storm water infrastructure (GSI): Case of Karsyaka

G. Altindas, K. Velibeyoglu, G. Küçük, M. Gkartzios

Circularity and sustainable value creation assessment of a novel biorefinery process

D. Renfrew, V. Vasilaki, E. Nika, G. Tsalidis, E. Katsou

16:45-17:00

Stormwater mitigation of summer established green roofs

G. Zanin, C. Maucieri, V. Giannini, M. Borin

Environmental Impact Assessment of water reuse applications in manufacturing industrial plants: water and energy nexus through footprint analysis

I. Nydrioti, H. Grigoropoulou

17:00-17:15

Ecosystem services and challenges of rain gardens for storm water management in cities

M. Kasprzyk, K. Kotecka, K. Fitobór, G. Galezowska, M. Gajewska

Integrated water-energy modeling in an open-access energy system optimization model: the Pantelleria Island case study

M.E. Alfano, F. Amir Kavei, M. Nicoli, F. Quatraro, L. Savoldi

17:15-17:30

Investigating the implementation of NBS using an urban water metabolism approach: The case of Ralleion School

S. Baki, I. Niadas, T. Tsantilas, S. Manouri, C. Makropoulos

Circular bioeconomy transformation for regions by enabling resource and governance networks

A. Winter, M. Bissmann, G. Tomas, R. Slade, J. Kissler

17:30-17:45

Quality of rainwater harvested from a green and a bituminous roof in a polluted air region

E. Tsanov, D. Valchev, I. Ribarova, G. Dimova

Circularity indicator development for a more flexible and comprehensive approach to assessing material, water and biological cycles in product development

R. H. Hargitai, V. Somogyi

17:45- 18:00

Non-conventional intensive municipal wastewater treatment solutions for safe reuse in agriculture: The FIT4REUSE project

E. Barka, A. Galani, C. Noutsopoulos, S. Malamis, F. Fatone, A. Foglia, A. Toscano, S. Lavrnjic, D. Frascari, A. Jaouani, Y. Karahan Ozgün

Framework for economic assessment of NBS for sustainable urban water management

M. Ghafourian, G.A.Tsalidis, A. Mousavi, E. Mino, E. Katsou

18:00-18:15

Forecasting Tools for hydro-ecological hazards exposure and vulnerability reduction in freshwater systems

WELCOME AT THE VENUE

A. Tzimas, E. Romas

18:30

WELCOME COCKTAIL AT THE VENUE





DAY 2 **8 JUNE 2023**

Keynote Presentation; Chairs: S. Malamis, F. Fatone; Auditorium

9:15-10:00 Keynote Presentation: Water Innovation and Circularity supported by H2020 and Horizon Europe Programmes
Evdokia Achilleos, Research Executive Agency, EC

SESSION V / Auditorium
Water NBS II; Chairs: J. Kisser, A.S. Stasinakis

10:00-10:15 Multifunctional constructed wetlands with a focus on productive plants for further valorisation in the African context
M. Hartl, E. Canga, G. Bertino, J. Kisser, T. Centofanti

10:15-10:30 Hotel greywater reuse in hydroponic system: Plant growth potential
J. Vosse, E. Mendoza, J. Comas, G. Buttiglieri

10:30-10:45 Use of oxygen nanobubbles to enhance vegetable and fish growth in aquaponic systems
Q. Paulus Botha, N. Kalogerakis

10:45-11:00 Review of rainwater harvesting applications in Turkey
E. Okumus Oksuz, B. Yazici

11:00-11:30 **COFFEE BREAK**

SESSION VII / Auditorium
Resource Recovery I; Chairs: O. Prado, E. Mino

11:30-11:45 Carbon redirection instead of mineralization: what are the main solutions to upgrade existing large activated sludge systems?
F. Chazarenc

11:45-12:00 Study on the recovery of nutrients from agricultural drainage water through application of Nature-Based Solutions
F. Chioggia, S. Lavrnic, F. Angeli, S.L. Gentile, S. Anconelli, A. Toscano

12:00-12:15 Upcycling of wastewater treatment sludge (WWTS) to produce high value biomolecules
V. Stefanelli, A. Kiwan, D. Pirini, D. Collini, C. Samori

12:15-12:30 The biofactory model of Alicante WWTP to unlock water scarcity barriers
L. Flores, E. Santos-Clotas, I. Casals, Y. Lorenzo-Toja

12:30-12:45 Recovery of bio-based nitric acid solution from anaerobic digestate through nitrification and decomposition of free nitrous acid
F. Rizzioli, E. Järvelä, H. Kyllönen, A. Gronroos, F. Battista, N. Frison

12:45-13:00 Long-term storage of source-separated urine: insights on nutrient recovery potential
M.E. Koulouri, M.R. Templeton, G.D. Fowler

13:00-13:15 Production and characterization of volatile fatty acids production from hydrothermal treatment of digestate
D. Liakos, G. Altiparmaki, S. Malamis, S. Vakalis

13:15-14:30 **LUNCH BREAK**

SESSION VI / INNOVATHENS 1st FLOOR
Targeted Pollutants; Chairs: G. Buttiglieri, G. Dimova

Removal mechanisms of ibuprofen and nutrients in microalgae reactors
L. González-Gil, R. Devesa-Rey, E. Togores de Vicente, S. Urrejola-Madriñán

Study on the removal of benzotriazoles and perfluorinated substances in advanced sludge anaerobic digestion reactors: effect of GAC addition and application of voltage
E. Galipidou, M. Deligiannis, A. Androulakakis, G. Gatidou, O.I. Kalantzi, M.S. Fountoulakis, A. S. Stasinakis

Carbon cloth stimulates direct interspecies electron transfer for phenol biodegradation
S. Shimshoni, K. Baransi-Karkaby, K. Yanuka-Golub, M. Hassanin, H. Azaizeh, I. Sabbah

New innovative eco-friendly drinking water treatment based on one-step chemical technology using a multifunctional natural polymer - LIFE SAFE_T_WATER
M. Añó Soto, P. Almenar L.Lorens, J. Macián Cervera, F. J. Olegario Baixaulí, M.Pedro-Monzonis, T. Oltra Benavent, J. F. Cabeza Martínez, L. Sàez García

COFFEE BREAK

SESSION VIII / INNOVATHENS 1st FLOOR
Water NBS III; Chairs: F. Masi, N. Frantzeskaki

Investigating nutrient removal capacity of nature-based solutions (NbS) for eutrophic brackish water
E. Kendir Cakmak, M.Hartl, T.Centofanti, Z. Cetecioglu, J. Kisser

Natural freshwater biofilms: a potential nature-based solution for sewage waters treatment
L. Bertrams, M. Abril, J. Lopez-Doval, M. Hidalgo, V. Salvadó, L. Proia

The role of aquifers in sustaining the Sponge City: Case Study: Izmir
E. Bilgiç, B. Öztürk, Ö. Y. Türkseven, T. Uzelli, A. Baba

Urban agriculture as a nature-based solution to foster circularity in cities: results from pilot applications in Trikala, Greece
A. Tsatsou, C. Ioannides, D. Mamais, S. Malamis, C. Noutsopoulos, G. Tsimiklis, D. Tsiakou, Z. Tsiropoulos, M. Michailidou, A. Tzourtziotis, C. Karaberi, O. Raptis

Performance evaluation of HEC-HMS and HEC-RAS models to locate Nature-Based Solutions in a Sicilian hydrological river basin
L. Sciuto, M. Melis, F. Licciardello, A. Ingenio, M. Sapiano, G.L. Cirelli

The innovative water management of the Etruscan tradition
M. Nardi, S.Aricó, P.P. Franzese

LUNCH BREAK



SESSION IX / AUDITORIUM

Water Reuse; Chairs: N. Kalogerakis, T. Stepsnik

14:30-14:45	Sustainable urban wastewater management in a coastal city in wet and dry periods: from combined sewer overflows to wastewater reuse	L. De Simoni, A. Foglia, C. Bruni, M. Sgroi, G. Darvini, C. Carini, A.L. Eusebi, F. Fatone
14:45-15:00	The Sewer Mining (SM) technology as a viable water resources management circular solution: A real world demonstration in the Athens urban area	K. Monokrousou, C. Makropoulos, G. Katsouras, N. Tsalas, S. Samios, E. Lytras
15:00-15:15	A toxicity test battery assessment of advanced technologies for safe agricultural reuse of non-conventional water resources	S. Yilmaz, S. Tarkian, A. Foglia, M. Parlapiano, F. Fatone, S. Lavrnić, A. Galani, E. Barka, E. Dulekgurgen, O. Karahan Ozgun
15:15-15:30	Digitalization of water reuse applications in agriculture and impacts on agricultural productivity	B. Yazici
15:30-15:45	The Simulation Platform Sim4Reuse: a modelling tool to predict the behaviour of the developed treatment technologies for wastewater reuse	Ö. Karahan Özgün, O.Y. Özcan, D. Binay, S. Yilmaz, S. Lavrnić, A. Foglia, M. Parlapiano, A. Galani, E. Barka, C. Noutsopoulos, A. Jaouani, S. Malamis, F. Fatone, A. Toscano

SESSION X / INNOVATHENS 1st FLOOR

Assessment Tools II; Chairs: J. Morato, V. Vasilaki

Environmental aspects of wastewater recycling from the point of view of LCA and emergent pollutant removal	T. Hnátková, M. Šereš, K. Chmelíková
Circularity and sustainability assessment of a minimal liquid discharge desalination	J.M. Ribeiro, C.E. Nika, R. Ktori, G. A. Tsalidis, M. Ghafourian, D.F.C. Dias, D. Xevgenos, E. Katsou
Innovative digitalisation process for water-food-energy (WFE) nexus solutions	A. Mousavi, M. Danishvar, E. Nika, E. Katsou
Digital twin technology for WWTPs optimization	Z. Kalincikova
Improving the operational efficiency of WWTPs using ML and AI methods	N.G. Markatos, V. Vasilaki, K. Kandris, E. Katsou, A. Mousavi

16:00-16:30

COFFEE BREAK

COFFEE BREAK

SESSION XI / AUDITORIUM

Resource Recovery II; Chairs: F. Chazarenc, A. Jaouani

16:30-16:45	Recovery of carbon-based products from acidogenic fermentation of biowaste via green pertraction processes	R. Lo Coco, F. Battista, D. Bolzonella, N. Frison
16:45-17:00	Sewer Mining and rapid decomposer units as a solution to circular economy	G. Katsouras, K. Kyriotes, S. Karavoltsos, A. Sakellari, N. Tsalas, K. Tsimnadis, R. Dermitzaki, I. Kontoni, V. Papadopoulou, L. Ntousopoulou, S. Samios
17:00-17:15	Net types for offshore aquaculture applications	D. Konispoliatis, D. Tsiourva, Ch. Sarafoglou, N. Tsouvalis, I. Chatjigeorgiou
17:15-17:30	Energy recovery from treatment wetlands biomass to enhance their sustainability in semi-arid climate conditions	L. Sciuto, F. Licciardello, A.C. Barbera, S. Musumeci, M. Severino, G.L. Cirelli
17:30-17:45	Thermochemical processes to recover and reuse sewage sludge potential and zero-pollution implications in H2O2O ULTIMATE and PROMISCEs	C. Bruni, N. Lancioni, M. Sgroi, A.L. Eusebi, E. Blumenthal, F. Fatone

SESSION XII / INNOVATHENS 1st FLOOR

Innovative Treatment Technologies I; Chairs: G. Banias, M. Gajewska

Real-scale application of an AnMBR reactor for the valorisation of effluents from a paper industry	A. Bartrolí, J. Torà, Ó.Prado
AQUACYCLE project: anaerobic bioreactors combined with natural based solutions and solar open photoreactors for wastewater recovery	A. Hernández-Zanoletty, P. Simón, S. Nahim-Granados, I. Oller, M.I. Polo-López, K. Plakas
Metabolic shift during controlling of excess sludge in a MBR system using the uncoupler of oxidative phosphorylation m-chlorophenol	I. Stavrakakis, N. Remmas, P. Melidis, S. Ntougias
A novel hybrid model (WWEEDeCarb) for prediction and mitigation of direct GHG emissions in wastewater treatment plants	N. Lancioni, B. Szeląg, E. Marinelli, S. Radini, A. Foglia, A.L. Eusebi, F. Fatone
Municipal wastewater treatment combining microalgae Chlorella sorokiniana and activated sludge in suspended-growth and attached-growth systems	A. Koukoura, E. Galipidu, E. Zkeri, M.S. Fountoulakis, A.S. Stasinakis

20:00

GALA DINNER - St. GEORGE LYCABETTUS

GALA DINNER - St. GEORGE LYCABETTUS

WATER PROJECTS EUROPE (WPE) WORKSHOP; INNOVATHENS GROUND FLOOR

10:00-13:30 Circular Water Solutions for a Water-Smart Society Exploring Water-Oriented Living Labs Innovations

INTRODUCTION AND KEYNOTE

10:00-10:10 Introduction to WPE (Water Europe and HYDROUSA)

10:10-10:15 Opening poll

10:15-10:30 Keynote speech: Water in the Circular Economy, Evdokia Achilleos, EC REA

SESSION 1: The Projects' Experience: Knowledge Exchange and Capacity Development

10:30-10:40 HYDROUSA Simos Malamis

10:40-10:50 NEXTGEN Klio Monokrousou

10:50-11:00 ULTIMATE Christos Makropoulos

11:00-11:30 COFFEE BREAK

SESSION 1 (cont): The Projects' Experience: Knowledge Exchange and Capacity Development

11:30-11:40 ACCELWATER Vassilis Fortsas

11:40-11:50 CARDIMED George Tsimiklis

11:50-12:00 AQUASPICE George Arampatzis

SESSION 2: The Service Provider View: Challenges and Practice on Circular Water

12:00-12:20 Hellenic Association of Municipal Water and Sewerage Utilities (EDEYA) Athens Water Supply and Sewerage Company (EYDAP)

SESSION 3: Securing Water for all: the EU Partnership at work: Water Oriented Living Labs for a Water-Smart Society

12:20-12:30 European Partnership Water4All - Water Security for Planet, G. Anousaki, I. Kourtis, M. Mimikou

12:30-12:40 Water Living Labs, A. Rubini

SESSION 4: Debate and Exchange: How can we achieve a water-smart society?

12:40-13:05 Panel discussion (moderated by HYDROUSA)

13:05-13:15 Final poll and takeaways (HYDROUSA and WE)

13:15-14:30 LUNCH BREAK

WATER PROJECTS EUROPE (WPE) WORKSHOP; INNOVATHENS GROUND FLOOR

«Προκλήσεις που προκύπτουν στη διαχείριση των αστικών λυμάτων από την επικείμενη αναθεώρηση της Οδηγίας 91/271»

14:30-15:00 Χαιρετισμοί από ΕΔΕΥΑ, ΕΥΔΑΠ, ΕΥΑΘ, ΕΜΠ

15:00-15:20 Βασικά Σημεία του Σχεδίου Αναθεώρησης της Οδηγίας 91/271 - ΕΥΤ, ΕΜΠ

15:20-15:40 Προτάσεις Βελτίωσης του Σχεδίου Αναθεώρησης της Οδηγίας 91/271 - ΕΥΤ, ΕΜΠ

15:40-15:55 Παρέμβαση από ΕΔΕΥΑ

15:55-16:10 Παρέμβαση από ΕΥΔΑΠ

16:10-16:30 COFFEE BREAK

16:30-17:45 Workshop (cont)

16:30-16:45 Παρέμβαση από ΕΥΔΑΘ

16:45-17:15 Παρεμβάσεις από ΔΕΥΑ

17:15-17:45 Συζήτηση και τελικές προτάσεις

20:00 GALA DINNER - St. GEORGE LYCABETTUS

GALA DINNER - St. GEORGE LYCABETTUS



DAY 3 9 JUNE 2023

SESSION XIII / AUDITORIUM
HYDROUSA II; Chairs: A. Rizzo, F. Licciardello

9:30-9:45

A novel rainwater circular solution as a distributed intervention to increase the resilience of water scarce decentralized communities: a real world demonstration in the Mykonos Mediterranean Island

K. Monokrousou, C. Makropoulos, A. Eleftheriou, M. Styllas, K. Dimitriadis, N. Kouris, E. Nyktari, I. Vasilakos, S. Malamis

9:45-10:00

Replicability of HYDRO solutions for alternative water recovery in 15 decentralised regions

J. González-Camejo, L. De Simoni, A.L. Eusebi, F. Fatone

10:00-10:15

Treated wastewater irrigation impact on soil nematode community

I.M. Mola, P. Kougiyas, E. Stataris, P. Papadopoulou, S. Malamis, N. Monokrousos

10:15-10:30

Socioeconomic and regulatory feasibility of HYDROUSA solutions: Outcomes from the replication sites in the Mediterranean and Middle East regions

E. Mino, N. Kamergi

10:30-10:45

Development and operation of a novel rainwater harvesting solution in remote, water scarce areas

I. Vasilakos, A. Eleftheriou, K. Eleftheriou, E. Nyktari, S. Kappa, N. Kouris, S. Malamis

10:45-11:00

Nitrogen recovery from urine using zeolite

N. Chatzi, E. Nyktari, N. Kouris, S. Malamis

11:00-11:30

COFFEE BREAK

SESSION XV / AUDITORIUM
Assessment Tools III; Chairs: E. Nika, E. Mino

11:30-11:45

Implementation of a Digital Twin in the water network of Kozani. Expectations, problems, exceedances, and results

K. Gonelas, T. Adamidis, S. Lappos, P.M. Oikonomou

11:45-12:00

Cost-Benefit Analysis to assess the economic effectiveness of a hybrid textile wastewater treatment system

F. Arous, D. Pinelli, S. Bessadok, S. Boudagga, C. Hamdi, W. Li, S. Kyriacou, T. Wardenaar, D. Frascari, A. Jaouani

12:00-12:15

Artificial Intelligence modelling framework to assess practical solutions for Water-Energy Nexus at local and regional scales in the Mediterranean areas

L.D. Sánchez, G. Penagos, P. Fonseca, M. García, S. Kalpana, H. Balamurugan, L. Martin, L.D. Diaz, B. Villanueva, J. Álvarez, J. Morató

12:15-12:30

Multi-level Decision Support System for WWTP operation and sustainability monitoring

D. Renfrew, V. Vasilaki, K. Kandris, N. Sayi-Ucar, M. Danishvar, E. Katsou

12:30-12:45

Hybrid approaches for the development of prediction models for wastewater treatment plants performance towards circularity

S. Martzoukos, C. Manousiadis, G. Tsimiklis, C. Ioannides, C. Noutsopoulos, A. Amditis

12:45-13:00

Advancing water quality assurance: validation of a portable real-time sensor for rapid detection of Faecal contamination

L. Bonatre, B. de la Loma, A. Alsedà, N. van Bel, A. Hommes, J. Van Rijn

13:00-13:15

Sustainable management of the Nestos/Mesta transboundary river basin based on a participatory approach and the DPSIR and AHP frameworks

C-A. Papadopoulou, I.M. Kourtis, K. Ziliaskopoulos, C. Laspidou, M.P. Papadopoulou, V.A. Tsihrintzis

13:15-14:30

LUNCH BREAK

SESSION XIV / INNOVATHENS GROUND FLOOR
Hospital Wastewater; Chairs: A.S. Stasinakis, M.S. Fountoulakis

Consumption and occurrence of pharmaceuticals in wastewater from a Greek hospital

O.S. Arvaniti, E.S. Arvaniti, S. Gyparakis, I. Sabathianakis, E. Karagiannis, E. Pettas, G. Gkotsis, M.C. Nika, N.S. Thomaidis, T. Manios, M.S. Fountoulakis, A.S. Stasinakis

Removal of pharmaceuticals in an integrated wastewater treatment system consisting of a methanogenic MBBR and an aerobic MBR in series

A. Iliopoulou, O. S. Arvaniti, M. Deligiannis, G. Gatidou, I. Vyrides, M.S. Fountoulakis, A.S. Stasinakis

On-site treatment of hospital wastewater for the removal of pharmaceuticals by using a three stage process

S. Dokianakis, S. Gyparakis, E. Vasilaki, I. Sabathianakis, E. Pettas, E. Karagiannis, E. Zagotis, E. Koumantakis, A. Stasinakis, M. Fountoulakis, N. Katsarakis, T. Manios

On-site hospital wastewater treatment: emphasis on ecotoxicity and antibiotic resistant bacteria

A. Kaliakatsos, I. Gounaki, S. Dokianakis, E. Maragkaki, A. S. Stasinakis, S. Gyparakis, N. Katsarakis, T. Manios, M.S. Fountoulakis, E. Karagiannis, D. Venieri

Pilot hospital wastewater treatment unit effluent reuse: The case study of 4 months Marigold plant cultivation.

S.G. Gyparakis, S. Dokianakis, I. Sabathianakis, N. Markakis, D. Papadimitriou, N. Micheloudaki, C. Mavridis, I. Daliakopoulos, C. Bouki, G. Daskalakis, M.S. Fountoulakis, A.S. Stasinakis, T. Manios

Evaluation of the removal of pharmaceutical compounds in different matrices by using heterogeneous photocatalysis

E. Maragaki, S. Dokianakis, E. Vasilaki, E. Pettas, E. Karagiannis, A. Iliopoulou, A. Stasinakis, M. Fountoulakis, N. Katsarakis, T. Manios

COFFEE BREAK

SESSION XVI / INNOVATHENS GROUND FLOOR
Biological Treatment; Chairs: N. Frison, J. González-Camejo

Anaerobic co-digestion of primary sludge and acid whey using continuous flow CSTR reactors

F. Gkoumas, D. Mamais, S. Malamis, C. Noutsopoulos

Mathematical modeling of the long-term dynamics of a sulfate-reducing UASB bioreactor from methanogenic to sulfidogenic conditions

E. Valdés Martín, D. González, G. Munz, D. Gabriel

Investigating the feasibility of combining the FO-UASB process for Energy Recovery from Concentrated Municipal Wastewater

S. Kappa, M. Kostaki, N. Kouris, C. Noutsopoulos, S. Malamis

Start-up and acclimatization of an anaerobic membrane bioreactor (MBR) treating highly alkaline wastewater from table olive processing

S.I. Patsios, E. Samaras, A.J. Karabelas

Mathematical modelling of anaerobic membrane bioreactor systems for urban wastewater treatment

A. Plevri, C. Ioannides, C. Noutsopoulos, D. Mamais

Examining the potential for EBPR in high nitrogen loading systems

D. Andreadakis, E. Themeli, S. Malamis, D. Mamais, C. Noutsopoulos

Investigation of a novel IFAS-SBR using the Anox Kaldnes K5 biocarriers for the biological nitrogen removal via nitrite from landfill leachate

E. Themeli, P. Kaperonis, C. Noutsopoulos, S. Malamis

LUNCH BREAK



SESSION XVII / AUDITORIUM Water Monitoring; Chairs: L. Proia, S. Rodriguez		SESSION XVIII; / INNOVATHENS GROUND FLOOR HYDROUSA III; Chairs: E. Koumaki, S. Semitsoglou-Tsiapou		
14:30-14:45	Effluent wastewater management by chemical screening and in vitro bioassays : a case study in the Danube River Basin	K. Ng, N. Alygizakis, M.-C. Nika, A. Galani, N. Maragou, S. Alirai, P. Behnisch, H. Besselink, P. Oswald, M. Oswaldová, L. Cirka, U. Kunkel, A. Macherius, M. Sengl, G. Mariani, S. Tavazzi, H. Skejo, B. M. Gawlik, N. S. Thomaidis, J. Slobodnik	HYDRO-1. route towards the Environmental Technology Verification (ETV) for agricultural treated wastewater reuse in Class A of EC Regulation 2020/741	
14:45-15:00	Enhancing water quality prediction for fluctuating missing data situations: A dynamic Bayesian network-based processing system	M. Pazo-Rodríguez, S. Gerassis, M. Araújo, X. Rigueira, J. Taboada	Pharmaceuticals in a demonstration-scale agricultural field irrigated with reclaimed water	
15:00-15:15	Holistic risk monitoring of the old Gediz River Bed in the Gediz Delta and risks of the old Gediz River Bed in the Gediz delta	G. Altındaş, K. Velibeyoglu, Ş. Arslan, O. Gündüz, A. Baba	Investigating the effect of reclaimed water use on corn plant	
15:15-15:30	"Sensing" harmful blooms from space: How water utilities can strengthen their performance using satellites	M. Katsiapi, I. Lioumbas, A. Christodoulou, P. Bauer, K. Schenk, D. Alexiadou, N. Filippidis, T. Konstantoula, T. Karantoumanis	HYDROUSA game: A serious game for engaging stakeholders with HYDROUSA innovations	
15:30-15:45	Real-time incremental machine learning for anomaly detection and surveillance in water quality	X. Rigueira, D. N. Olivieri, M. Araújo, M. Pazo-Rodríguez, E. Alonso	Best practise of community engagement within HYDROUSA project	
15:45-16:00	Control and management system for the water supply network and the pumping stations of the Municipality of Vrilissia	E. Tselepidis	Small island sustainability towards water circularity: a nature-based solution to produce aromatics in Santa Maria Island (Azores, Portugal)	
16:00-16:30	COFFEE BREAK		COFFEE BREAK	
SESSION XIX / AUDITORIUM Socioeconomic Assessment; Chairs: O. Karahan, A. Mousavi		SESSION XX / INNOVATHENS GROUND FLOOR Innovative Treatment Technologies II; Chairs: A. Bartrolí, K. Plakas		
16:30-16:45	Open platform for knowledge consolidation and social learning on non-conventional water best practices, first analysis and potential impacts	T. Mellah, L. Bousselmi, O. Hsini, H. Amdouni, H. Hached, A. Ghrabi, H. Dekhil, C. Fersi, M. Hind, N. Mazahrif, A. Paulotto, K.V. Plakas, A. Rizzo, M. Regelsberger, B. Samari	The impact of innovative fit-for-purpose modelling on the industrial wastewater treatment: Application to case studies	
16:45-17:00	Investigating the social acceptance of upcycled products derived from wastewater valorization: a key issue for circular economy	S. Skoutida, M. Batsiouda, D. Geroliotis, L. Melas, A. Malamakis, C. Karkanas, G. Banias	Upcycling of waste sludge: the innovative B-Plas process	
17:00-17:15	Development of a web-based serious game to create awareness for the impact of climate change and demographic development on water supply system in Austria	A. Stelzl, V. Adler, G. Arbesser-Rastburg, D. Camhy, J. Pirker, D. Fuchs-Hanusch	Preparation of a diatomaceous earth and zero-valent iron hydrogel for wastewater treatment	
17:15-17:30	The 4th war: An educational serious game on sustainable water use	Z. Tsiropoulos, M.D. Kaminiaris, A. Tsiropoulou, A.M. Michailidou, M. Voskakis	The BIOGASNET project: pilot testing of a bioprocess for simultaneous biogas desulfurization and ammonium removal from landfill leachate	
17:30-17:45	Circular water for circular business in MEDWAYCAP project	D. Sabri	Investigation of organic micropollutants' removal from water using wood-based biochar	
18:00-18:30	CLOSING OF CONFERENCE; AUDITORIUM		CLOSING OF CONFERENCE; AUDITORIUM	
18:30-20:30	GUIDED TOUR TO THE ACROPOLIS MUSUEM		GUIDED TOUR TO THE ACROPOLIS MUSUEM	





POSTER TITLE



AUTHORS



1. Pharmaceuticals in lettuce irrigated with treated wastewater under real agricultural practices: human exposure and risk assessment	L.H.M.L.M. Santos, S. Semitsoglou, S. Rodríguez-Mozaz, G. Buttiglieri
2. Removal of bisphenol A by plasma-cavitation technology (Causma)	M. Zupanc, M. Petkovšek, G. Primc, R. Roškar, R. Zaplotnik, J. Trontelj
3. Symbiotic, circular bioremediation systems and biotechnology solutions for improved environmental, economic, and social sustainability in pollution control	T. Centofanti, M. Hartl, E. Canga, A. Winter, J. Kisser
4. Water and nutrient retention using bio-inspired drainage filters in the agriculture landscape, Austria	E. Canga, H. Schabschneider, I. Luketina, E. Toker, J. Kisser
5. Exploring "green substitutes" of persistent pharmaceuticals in the agro-food ecosystems 3D-printed innovative photocatalytic reactor	E. Canga, F. Wolff, L.H. Santos, A. Strigl, J. Kisser
6. 3D-printed innovative photocatalytic reactor	M.K. Arfanis, G.V. Theodorakopoulos, T. Stepisnik Perdih, S. Malamis, D. Iatrou, G.Em. Romanos, P. Falaras
7. Design, construction and validation of a novel photocatalytic nanofiltration reactor for the decontamination of agro-industrial effluents	G.V. Theodorakopoulos, M.K. Arfanis, J.A. Sánchez Pérez, A. Agüera, F. X. Cadena Aponte, E. Markellou, G.Em. Romanos, P. Falaras
8. Effects of drought stress on biomass, essential oil and essential oil composition of <i>Satureja hortensis</i> L., cultivated in Egypt	S. Fayeze Hendawy
9. Use of UPLC-Q-ToF-HRMS/MS for studying the removal of multiple group of pharmaceuticals from hospital wastewater in an integrated pilot-scale system	A. Iliopoulou, D. Kotsia, S. Dokianakis, S. Gyarakis, E. Pettas, E. Karagiannis, O. Arvaniti, G. Gkotsis, M.C. Nika, N.S. Thomaidis, N. Katsarakis, T. Manios, M.S. Fountoulakis, A.S. Stasinakis
10. Competitive removal of heavy metal ions from wastewater by functionalized silica	D. Humelnicu, I. Humelnicu
11. Identification of potentially contaminating areas by industrial processes in the Toluca-Temoaya basin, Mexico	L.J. Osornio-Berthet, M. García-Martínez, J. Melendez-Estrada, O. Cruz-Castro, I.D. Barceló-Quintal, J.C. Beltrán-Rocha
12. Advanced solutions to alleviate the Mediterranean Sea from chemical pollution: A demonstration case in Thrasio wastewater treatment plant and the Elefsis Gulf	K. Kyriotes, G. Katsouras, K. Peroulis, S. Samios, C. Parinos
13. Use of ornamental plants in floating treatment wetlands for greywater treatment in buildings	A. Stefanatou, E. Markoulatou, I. Petousi, T. Akriotis, A. Rizzo, F. Masi, F.S. Fountoulakis

14. Piloting water-sensitive decentralized stormwater management in Dar es Salaam, Tanzania	J.W. Young, T. Fettback, M. Bahame, C. Muhamba, M. Hasani, W. Dickhaut
15. Circular economy and biodiversity in the treatment of wastewater using an industrial waste - LIFE RENATURWAT	M. Añó, P. Almenar, J. Macion-Cervera, F.J. Olegario, N. Oliver, M. Pedro-Monzonis, T. Oltra-Benavent, C. Hernández, M. Martín
16. Destruction of Per- and Polyfluoroalkyl substances (PFAS) from sewage sludge by Hydrothermal Carbonization (HTC) process	G. Altiparmaki, G. Gatidou, A. Androulakis, A. Stasinakis, S. Vakalis
17. Management of sewage sludge using green technologies in a circular economy	A.I. Stefanakis, P. Regkouzas, I. Asimakoulas
18. The potential of biological treatment of reject water from shale gas extraction in the activated sludge system	P. Kowal, Ł. Sikorski, H. Al-Hazmi, J. Majtacz, B. Szeląg, F. Fatone
19. EARLYWATER - An integrated early warning system to control emerging pollutants and pathogens in reclaimed water	E. Koumaki, V. Vasilaki, K. Kandris, F. Fatone, E. Katsou
20. Characterization of <i>Chlorella sorokiniana</i> biomass from winery wastewater treatment	E. Zkeri, A. Xenaki, M. Mastori, A. Panara, M.G. Kostakis, M. Dasenaki, N.S. Thomaidis, A.S. Stasinakis
21. Toolkit for robust and adaptable drinking water systems: a demonstration case in Polydendri DWTP	K. Peroulis, G. Katsouras, K. Kyriotes, M. Pantoula, S. Samios, P. Kossieris, C. Makropoulos
22. Removal of heavy metals from industrial wastewater using natural and organically modified minerals	M. Margaritis, E. Gkazeli
23. Assessment of ozonation as a strategy for sanitation of sludge in wastewater treatment plants	M. E. Ibáñez-López, E. Draz-Domínguez, J. L. García-Morales
24. Going beyond the Water Safety Plan: an innovative approach in water management to tackle the risks from climate change in Italy	G. Colombi, R. Mori, M. Cerroni, E. Ferretti, C. Sette, N.M. Gusmerotti, F. Corsini, A. Borghini, E. Guastaldi, T. Colonna, A. Barbagli, L. Lucentini, M. Frey
25. Demonstration activities for reducing diffuse pollution from forestlands - LVM approach	R. Ieva, B. Kate, M. Zujane
26. Use of coagulants for the treatment of greywater in ships	S. Urréjola-Madrinán, R. Devesa-Rey, J. Bohórquez, L. González-Gil
27. Adsorptive removal of endocrine disrupting bisphenol A from aqueous solution using olive stones	S. Bessadok, K. Kraiem, D. Tabassi, F. Arous, S. Keshk, A. Jaouani
28. The case study of the Balearic Islands of Mallorca, Cabrera, and Formentera: theoretical feasibility assessment of water loops	G. Buttiglieri, C. Amengual
29. Incorporation of perlite in sandy soil as a measure to reduce irrigation needs of turf grass	E. Georgiou, S. Papailiou, P. Angelopoulos, I. Massas, I. Zafeiriou
30. The effect of treated municipal wastewater on soil macroarthropods	I. Ekkliarioux, M. Mola, M. Dimou, P. Papadopoulou, S. Malamis, N. Monokrousos





THE WORKSHOPS



Within the WIC Conference two interesting workshops are taking place: the Water Projects Europe (WPE) workshop on Circular Water Solutions for a Water-Smart Society which is co-organized by Water Europe and HYDROUSA project and a Workshop on the challenges that the upcoming Revision of the Urban Wastewater Treatment Directive (91/271/EEC) brings to water utilities.

The second workshop is in greek and is co-organized by Hellenic Association of Municipal Water and Sewerage Utilities (EDEYA) the Athens Water Supply and Sewerage Company (EYDAP), the Thessaloniki Water Supply and Sewerage Company (EYATH) and the Sanitary Engineering Laboratory of the National Technical University of Athens (NTUA).



WATER
Innovation & Circularity
CONFERENCE (WICC)



WATER PROJECTS EUROPE CIRCULAR WATER SOLUTIONS FOR A WATER-SMART SOCIETY



Exploring Water-Oriented Living Labs Innovations
Athens, Technopolis Gazi, 8 June 2023, 10:00-13:30

Water Projects Europe (WPE) is a side event of the Water Innovation and Circularity Conference (www.wicc.gr). This event aims to explore the transformative concepts of a Water-Smart Society and Water-Oriented Living Labs. By discussing and sharing knowledge, the event aims to foster innovative water management practices aligned with the overarching goals of sustainability and circularity.

This event is part of the ambitious HYDROUSA project, which is nearing its completion, and is a Horizon2020 EU funded project that provides innovative, regenerative, and circular solutions for three vital aspects: nature-based water management, resource valorisation, and local economies. It aims to create a win-win-win situation for the economy, environment, and community within the interconnected realms of water, energy, food, ecosystems and employment.





The core principle of HYDROUSA is to establish water loops that incorporate various non-conventional water sources. The project showcases demonstrations of water treatment and management systems that recover freshwater, nutrients, and energy from wastewater, rainwater, stormwater, seawater and vapour water. Additionally, HYDROUSA promoted water conservation solutions such as aquifer storage and sustainable agricultural practices like fertigation and precision irrigation.

Water Project Europe (WPE) is a series of events of Water Europe made to learn from and build on the experience of innovating projects working on converging topics. WPE aims at clustering water-related projects by thematic areas to allow them to interact, mutually build on the respective experience, support policy development, and stimulate the market uptake of innovations.

RATIONALE

A Water-Smart Society envisions a future where water resources are managed intelligently, efficiently, and sustainably. To achieve this vision, Water-Oriented Living Labs play a crucial role as experimental spaces for testing and implementing cutting-edge water solutions. These labs integrate research, technology, and stakeholder engagement to facilitate the development and deployment of innovative approaches to water management.

By emphasising the importance of Water-Oriented Living Labs, WPE aims to promote collaboration, creativity, and knowledge exchange among stakeholders, ultimately driving sustainable water management practices. WPE will host a comprehensive discussion that includes the following projects: HYDROUSA, NEXTGEN, ULTIMATE, ACCELWATER, CARDIMED and AQUASPICE. Additionally, the event will provide an opportunity for the water utilities and other relevant stakeholders to actively engage in the discussion and contribute their valuable insights and perspectives. This inclusive approach aims to foster a collaborative environment where diverse stakeholders can share their experiences, challenges, and innovative solutions, ultimately driving the advancement of sustainable water management practices. The event will showcase innovative projects that demonstrate practical solutions for achieving a Water-Smart Society.

AGENDA

10:00 - 10:10	Introduction to WPE (WE and HYDROUSA)
10:10 - 10:15	Opening poll
10:15-10:30	Keynote: Water in the Circular Economy Evdokia Achilleos EC REA
SESSION 1 THE PROJECTS' EXPERIENCE: KNOWLEDGE EXCHANGE AND CAPACITY DEVELOPMENT	
10:30 - 10:40	HYDROUSA Simos Malamis
10:40 - 10:50	NEXTGEN Klio Monokrousou
10:50 - 11:00	ULTIMATE Christos Makropoulos
11:00 - 11:30	Networking coffee
11:30 - 11:40	ACCELWATER Vassilis Fortsas
11:40 - 11:50	CARDIMED George Tsimiklis
11:50 - 12:00	AQUASPICE George Arampatzis
SESSION 2 The Service Provider View: Challenges and Practice on Circular Water	
12:00 - 12:20	Hellenic Association of Municipal Water and Sewerage Utilities (EDEYA) Athens Water Supply and Sewerage Company (EYDAP)
SESSION 3 SECURING WATER FOR ALL: THE EU PARTNERSHIP AT WORK Water Oriented Living Labs for a Water-Smart Society	
12:20 - 12:30	European Partnership Water4All • Water Security for Planet, G. Anousaki, I. Kourtis, M. Mimikou
12:30 - 12:40	Water Living Labs, A. Rubini
SESSION 4 DEBATE AND EXCHANGE: HOW CAN WE ACHIEVE A WATER-SMART SOCIETY	
12:40 - 13:05	Panel discussion (moderated by HYDROUSA)
13:05-13:15	Final poll and takeaways (HYDROUSA and WE)
13:15-14:30	Networking lunch





WORKSHOP WITH GREEK WATER UTILITIES

(Workshop will be held in Greek)

Arising challenges for Urban Wastewater

Treatment management by the

forthcoming revision of Directive 91/271/EEC

June 8 2023, 14:30-17:45

Co-organisers:

Sanitary Engineering Laboratory (SEL), National Technical University of Athens (NTUA)

Hellenic Association of Municipal Water and Sewerage Utilities (EDEYA)

Athens Water Supply and Sewerage Company (EYDAP)

Thessaloniki Water Supply and Sewerage Company (EYATH)

The Sanitary Engineering Laboratory (SEL) of the School of Civil Engineering of the National Technical University of Athens (NTUA), the Hellenic Association of Municipal Water and Sewerage Utilities (EDEYA), the Athens Water Supply and Sewerage Company (EYDAP), and the Thessaloniki Water Supply and Sewerage Company (EYATH) welcome you to the seminar entitled "Arising challenges for Urban Wastewater Treatment management by the forthcoming revision of the Directive 91/271/ EEC."

In October 2022, the European Union published its proposal (2022/0345) on the revision of the Urban Wastewater Treatment Directive 91/271/EEC . This proposal aims, among other things:

- To achieve reduction in pollutants, energy consumption, and greenhouse gas emissions in wastewater treatment plants.
- To improve the quality of treated urban wastewater.
- To improve access to sanitation, especially for the most vulnerable and marginalised citizens.
- To shift the cost of treating micropollutants to the industry.
- To establish monitoring of pathogens and micropollutants in wastewater.
- To promote a more sustainable and circular approach to urban wastewater management, in line with the demands of the European Green Deal.

The implementation of this proposal is expected to bring significant changes and have a substantial impact on water utilities, both in terms of the necessary infrastructure projects that need to be undertaken and the daily operation of wastewater treatment plants. This seminar will provide an analysis and discussion of the key proposed changes and how these will affect the water utilities.

WORKSHOP PROGRAMME

14:30 • 15:00	Welcome by EDEYA, EYDAP, EYATH, NTUA
15:00 • 15:20	Key Points of the 2022/0345 (Directive 91/271 Revision Plan) -SEL, NTUA
15:20 • 15:40	Suggestions on the Revision Plan of Directive 91/271/EEC -SEL, NTUA
15:40 • 15:55	Statement by EDEYA
15:55 • 16:10	Statement by EYDAP
16:10 • 16:30	Coffee break
16:30 • 16:45	Statement by EYATH
16:45 • 17:15	Statement by other DEYA
17:15 • 17:45	Discussion and Final points





PUBLICATIONS



Selected papers of the Conference will be published after evaluation in the following Journals:

Science of the Total Environment under the Special Issue
Nature-based solutions for sustainable water management†
(Journal Impact Factor 10.753)



Urban Water Journal under the Special Issue
«Water Reuse and Resource Recovery»
(Journal Impact Factor 2.917)



Journal of Environmental Management under the Special Issue "Solid
Waste and Wastewater Management in Light of Circular Economy"
(Journal Impact Factor 8.91)

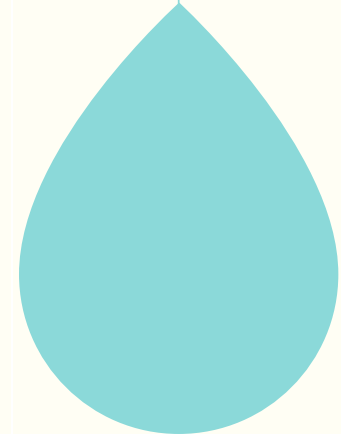
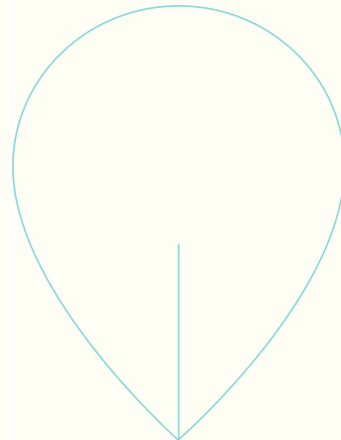
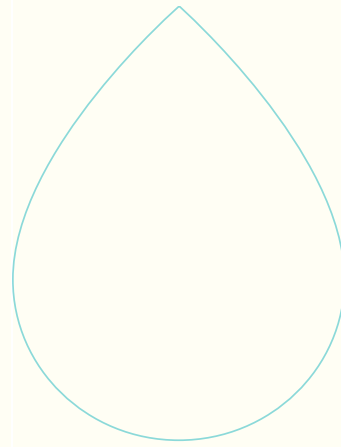
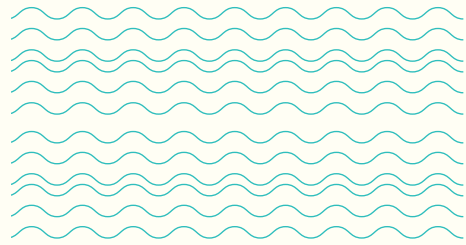


Waste and Biomass Valorization under the Special Issue «Resource
Recovery from Wastewater and Biosolids»
(Journal Impact Factor 3.449)



Desalination and Water Treatment
(Journal Impact Factor 1.23).





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