

## AGENDA - Greece 26<sup>th</sup> October

# Water Academies



Finding innovative solutions  
for water scarcity in  
Southern Europe.



1

## Greece Water Academy

Join our online workshop via ZOOM on October 26th, 2020 and get answers on how to fight water scarcity in Greece. Water Academy will be held in Greek language. English speaking participants will be able to follow the program through simultaneous interpreting. Participants will have the opportunity to interact with the experts during the Q&A dedicated to each session.

### Program of the day

#### More information about content and speakers below

- **Morning session: 9:00 – 12:00 EET**
  - The morning session will be dedicated to sharing experiences from different sectors affected by water scarcity, sharing about urgent threats and future challenges and how Europe's Green Deal can help on the path towards climate neutrality.
- **Afternoon session: 14:00 – 15:30 EET**
  - Three parallel group sessions focusing on Agriculture, Urban Areas, or Industry. Choose the one you are most interested in.
- **Closing session: 15:30 – 16:00 EET**
  - Final conclusions and overview of all 3 group sessions.

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2

## Detailed program & Information about the speakers

9:00 – 10:45 EET

### Introduction to Water Scarcity Challenge

**Dr. Stella Apostolaki** holds a BSc/(Hons) in Environmental Science, MSc in Urban Water and Environmental Management and PhD on sustainable urban drainage systems and river management options, from the University of Abertay Dundee, Scotland – U.K. She is Chair of the Academic Advisory Board of the Center of Excellence for Sustainability (ACG). Main research interests: integrated water management, water scarcity and climate change, sustainability, conservation of biodiversity, public education, green urban planning.

Dr. Stella Apostolaki will lead 1st presentation with the following topics:

- Framing the water scarcity concept in Greece: aridity as a natural occurrence; climate change, overexploitation of resources;
- Water uses, interrelations between water use sectors, multilevel impacts;
- EU regulatory framework on water scarcity and implementation status in Greece;
- Addressing the SDGs to combat water scarcity.

Keywords: Water scarcity, climate change, virtual water, water uses, aridity.

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3

11:00 – 12:00 EET

### Europe's Green Deal - EU's biggest action to reach climate neutrality

**Dr. Ioannis Kougias** works as Programme Officer at the Joint Research Centre of the European Commission (JRC) with a focus at the science and policy interface conducting scientific analyses to support EU policy making. His research focuses on EU energy and climate regulatory framework with a strong interest in renewable energy, water-energy interrelation, technology and market assessments. Within the JRC, he coordinates research and policy projects relevant to hydropower. He has a background in engineering with a PhD in water engineering – hydropower and an MSc in energy economics.

Dr. Kougias will lead our 2<sup>nd</sup> presentation with the following topics:

- A European Green Deal: Presentation of EU's policy and regulatory framework;
- EU climate targets: 2020 updates and the COVID-19 recovery package;
- Green Deal and water scarcity. How the climate policies affect water resources?
- The role of research and innovation.

Keywords: European Green Deal, EU Climate Policies, Water-Energy Nexus, Sustainable Finance, Renewable energy.

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4



14:00 – 15:30 EET

### Water Scarcity in Agriculture

**Dr. Thomas Bartzanas** is Associate Professor and Director of the Lab of Farm Structures in Agricultural University of Athens. He is collaborative Researcher in the Institute of Bio-economy and Agrotechnology of the Centre for Research and Technology-Hellas. He acts as vice-chair and representative of Research/Academic organization in Food for Life Technology platform in Greece. His research area is focused on the application of precision agricultural technologies (sensors, automation and ICT tools), systems analysis and modelling in agriculture, controlled environment agriculture (greenhouses, vertical farming systems, livestock facilities) and environmental impact assessment of agricultural operations using the life cycle approach

Dr. Bartzanas will lead 3<sup>rd</sup> presentation with the following topics:

- Water demand from main agricultural crops;
- Estimate the actual water needs for crops;
- Smart technologies and systems for rational water use in agriculture;
- The environmental impact of water use in agriculture.

Keywords: Water use efficiency, water footprint, precision irrigation.




5



14:00- 15:30 EET

### Water Scarcity Challenge for Urban areas (municipalities, utilities, tourism...)

**Dr. Dimitris Kofinas** is a PhD Civil Engineer in Hydroinformatics and a M.Sc. in System Simulation and Design of Civil Engineering Works. He is a researcher for several EU projects related to water, water-smart systems, Integrated Urban Water Management, the Nexus, and aquatic ecosystems. He has worked for a water utility and recently, he participated in the worldwide EUvsVirus Hackathon with an international team of 15 and won the first price with the solution “Sewers4COVID”.

Dr. Kofinas will lead 4<sup>th</sup> presentation with the following topics:

- Building a smart city: the water entry point;
- Current trends in water resources management towards holistic and inclusive approaches;
- Technical, social, economic innovation for increasing efficiency in urban water systems;
- How can Living labs tackle typical obstacles to the market introduction of innovations.

Keywords: Urban water, Smart water, Smart cities, Nexus, Digital water, Digital twins, Water management.




6

14:00 – 15:30 EET

## Water Scarcity in Industry

**Dr. Mellios Nikolaos** is a Post-doctoral researcher at the Civil Engineering Department, University of Thessaly with a Diploma in Environmental Engineering from the Technical University of Crete. He has been actively involved in several EU-funded projects related to water sustainability as ISS-EWATUS, WATER4CITIES, SIM4NEXUS, LOTUS and NanoSWS. His interests include mathematical modeling and simulation of physical-chemical and biological processes in natural and other water ecosystems, as well as urban and industrial water issues, water resource efficiency and sustainability, and virtual water and water-carbon-ecological footprint.

Dr. Nikolaos will lead 5<sup>th</sup> presentation with the following topics:

- Industry has a large share of global water consumption in order to produce commodities such as food, paper, textiles, chemicals, refined petroleum, etc. Water resources are highly stressed and adapting for a Green Economy is our only path to welfare and sustainable development.
- Innovative solutions such as water reuse, optimized wastewater treatment and the digitalization of industries through IoT and Big Data platforms, can save large amounts of industrial water.
- Raising awareness about the typical obstacles and ways to overcome them, is of crucial importance in adopting innovative water-saving solutions in industry.
- Industrial alignment to current technologies can be proven beneficiary in terms of economic and environmental development.

Keywords: Industrial Water, Green Economy, Water-saving Innovations, Water Reuse, Wastewater Treatment, Industrial Digitalization, Industry 4.0.

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