



AquaSPICE Summer School

Achieving Water-Smart Management in the Process Industry – An Educational Perspective



AquaSPICE INFO-DAY EVENT

Materializing circular water use, fostering awareness in resource efficiency, and delivering innovative solutions for a Water-Smart Society

Chania, Crete, Greece

Assoc. Prof. George ARAMPATZIS, Assist. Prof Lefteris DOITSIDIS
Technical University of Crete (TUC)

Welcome to Chania

AquaSPICE At a Glance

*Advancing Sustainability of Process Industries
through Digital and Circular Water Use Innovations*

<https://aquaspice.eu/>

Funded under INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Advanced manufacturing and processing

Topic CE-SPIRE-07-2020 - Preserving fresh water: recycling industrial waters industry

Coordinator: Rheinisch-Westfaelische Technische Hochschule Aachen, Prof. Thomas Wintgens

Technical Coordinator: Technical University of Crete, Assoc. Prof. George Arampatzis

AquaSPICE promotes the **circular use of water** in **Process Industry** and fosters awareness in resource-efficiency. It provides compact solutions such as **water treatment and reuse technologies** and **recycling practices**, while developing an innovative **cyber-physical system** to monitor, evaluate and optimize water use in real time.



27 Partners



11 Countries



5 Case Studies



12.850.000€



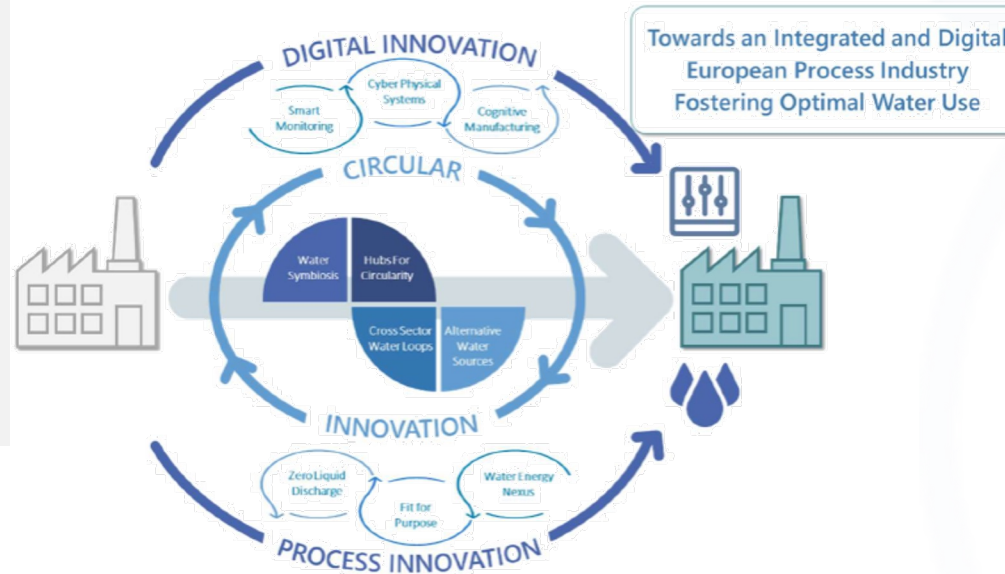
51 months

AquaSPICE Innovation Pillars

Circular Innovation Pillar



- Water **re-use** at different levels
- Design, Monitoring and Evaluation of demonstration schemes using systemic **methodologies & tools**, based on holistic modelling concepts



Process Innovation Pillar



- Installation
- Operation
- Assessment of **advanced water treatment technologies & practices** with energy and substances recovery

Digital Innovation Pillar

- Real-time monitoring** and distributed **data management system** connects the physical and digital worlds through smart sensor networks, IIoT and cloud/edge technologies
- Water-specific **Cyber-Physical-System (WaterCPS)** synthesises digital twins of industrial & value chain entities to provide advanced water-saving awareness & optimised water efficiency at different levels



AquaSPICE Events on 2-5 July 2024

- AquaSPICE Summer School
Achieving Water-Smart Management in the Process Industry – An Educational Perspective
- Lectures will be given by experts from top institutions including the
 - Technical University of Crete
 - RWTH Aachen University
 - Università Politecnica delle Marche
 - University of Huddersfield
 - Athens University of Economics and Business
 - Audencia Business School
 - KWR Water Research Institute
 - Water Europe
- AquaSPICE INFO-DAY
Materializing circular water use, fostering awareness in resource efficiency, and delivering innovative solutions for a Water-Smart Society
- Discussions on sustainable water management
- Cluster event bringing together a diverse group EU funded projects represented by researchers, industry experts, policymakers, and innovators

Thank you for your attention

George Arampatzis, Efthalia KARKOU
Technical University of Crete (TUC), Greece



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