



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



The AquaSPICE project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 958396.

# 6 Case Studies

## Case Study 1:

Technology focus for freshwater intake reduction at DOW



Boehlen (DE)

Terneuzen (NL)

## Case Study 2:

Water treatment and re-use within peroxide production units at SOLVAY



Rosignano (IT)

## Case Study 3:

Sustainable and robust water system for the industrial zone of Antwerp at BASF



Antwerp (BE)

## Case Study 4:

Waste to fuel transformation setup at JEMS



Ljubljana (SL)

## Case Study 5:

Sustainable water use in meat production in the circular economy at AGRICOLA



Bacau (RO)

## Case Study 6:

Water treatment and re-use within refinery at TUPRAS



Izmit (TU)

# Objectives

The AquaSPICE overall goal is the development and validation of water efficiency management and optimization methodologies, technologies and tools that will carry process industries forward to a near-zero water footprint target with minimum freshwater consumption and water-borne emissions. This is pursued through a set of scientific and technical objectives, motivated by real industrial needs analysed through six case studies and a set of impact-related objectives.



# Impact & Results

Significant reduction of the current use of freshwater resources

Significant steps towards near-zero discharge using closed-loop systems in industrial processes

Significant increase of the recovery of water, energy and/or substances and materials

Increase of resource and water efficiency by 30% compared to the state-of-the-art

Effective dissemination of major innovation outcomes to the current and next generation of employees

Replication potential of the AquaSPICE solutions



## General Details

### Duration:

01/12/20- 31/05/24  
(3.5 years)

### Total amount:

€11,055,248

### Funding Programme:

Horizon 2020

### Consortium:

29 partners, 12 countries

### Coordinator:

RWTH Aachen Univ. (DE)



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## Partners

