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# The 2026 CIVIS Blended Intensive Programme

**Climate, Environment and Energy HUB**
Prof. M.L Costantini
Coordinator

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Europe's Civic University Alliance

***For Biology, Ecology, Environmental Science and Engineering, Biotechnology and Chemistry students***

**Master and Doctoral students**

## $H_2O$ Pollution: holistic approach and nature based solutions

15-19 June 2026 in Rome

***Department of Environmental Biology***

**JOINT THE EVENT !**

**SAVE THE DATE !**

**In line with Sustainable Development Goals**

ENEA · IRSA CNR · Una finestra sul mare · Sapienza Università di Roma · Universitet Stockholms · University of Glasgow

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# General programme of the BIP

| | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|
| 9: 00 – 11: 00 | Arrival and registration – Opening session | Field trip | Lab activities in Sapienza | Visit to Stakeholders | Project planning session |
| 11: 15 – 13: 15 | Learning sessions | Field trip | Lab activities in Sapienza | Visit to Stakeholders | Project planning session |
| 14: 15 – 16: 15 | Learning sessions | Field trip | Lab activities in Sapienza | Visit to Stakeholders | Sum up and feedback |
| 16: 30 – 18: 30 | Learning sessions | Workshop | City tour – water at the ancient Romans' times | Workshop | Closing session |
| 20: 30 | | | Social event | | |

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# LECTURES AND APPLICATIONS IN ROME

**1) New ecological approaches to assess water quality**

- Isotope fingerprints to track pollution sources and environmental changes over space and time
- Detection of Microcystin-producing cyanobacteria and naturally-occurring biodegrading bacterial community
- Ecotoxicology testing adapted for detection of Microcystins
- Identification of antibiotic resistant bacteria and genes
- Ecotoxicology testing with macro-invertebrates
- Non-animal alternatives (NAMS etc)
- Identification of microbiological indicators of depollution by molecular methods
- Ecotoxicological tests in water mixtures to support chemical analysis
- Degradation tests under aerobic anaerobic conditions

**2) New chemical approaches to assess water quality**

- Sources, occurrence and health impacts of emerging contaminants and methods for their identification
- Sensors to monitor water quality
- Non-target screening and targeted analysis

**3) Green and nature-based solutions for pollution remediation including bioenergy production**

- Green chemistry solutions for water pollution problems
- Nature-based solutions for pollution remediation
- Bioremediation of emerging contaminants, phyto-assisted bioremediation
- Energetic valorisation of human activities' residual products including pharmaceuticals and other emerging contaminants
- Bioelectrochemical systems (BES), microbial fuel cells (MFCs), microbial electrolysis cells and anaerobic digestion in bioremediation, wastewater treatment, biofuel, energy and biochemical production

*fieldwork*

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# Affiliation of the Academics

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*Innovative approaches for effective detection and removal of pollutants in sustainable water management*

**Blended Intensive Programme**

**Rome**
**15-19 June 2026**

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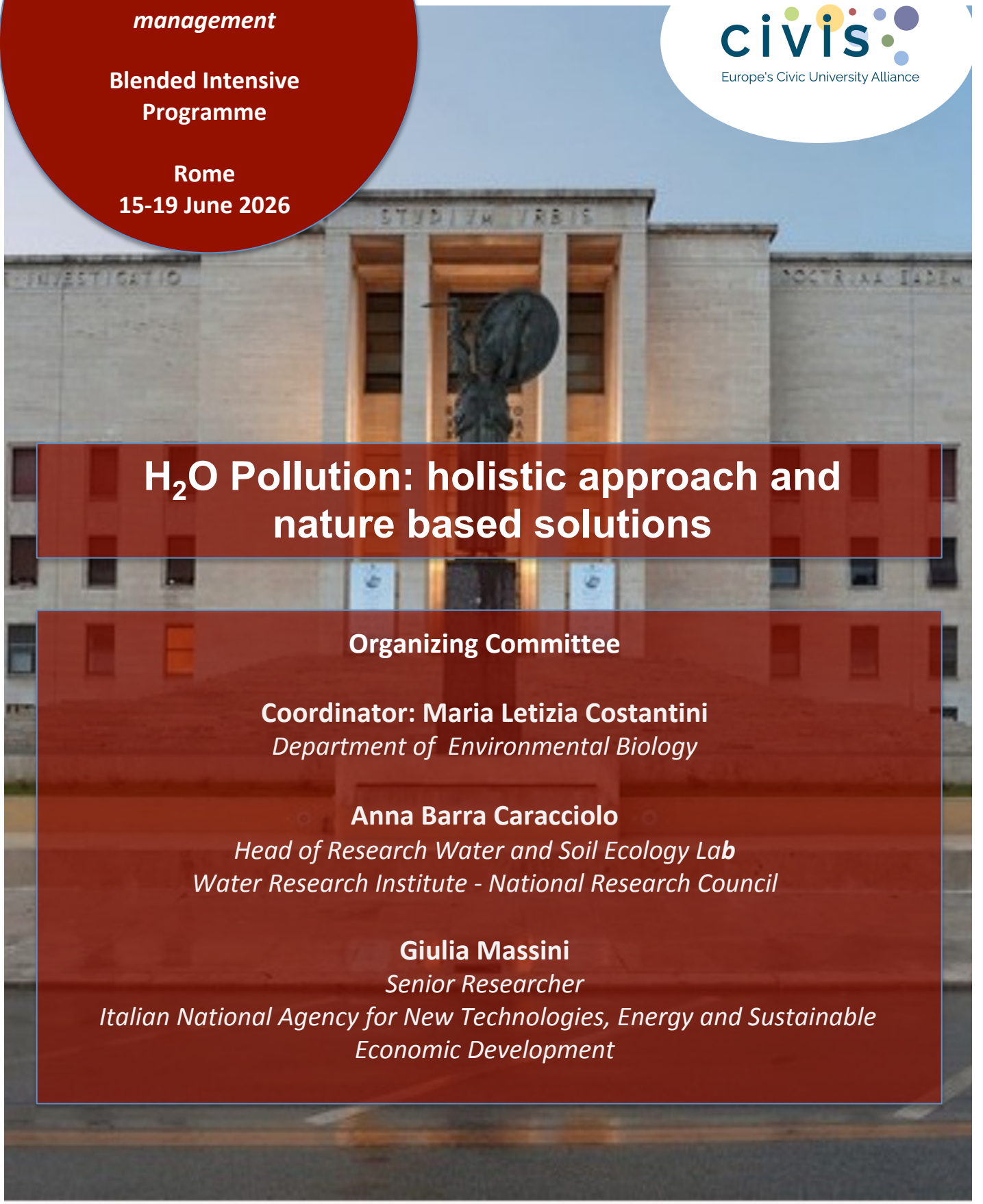

# $H_2O$ Pollution: holistic approach and nature based solutions

**Organizing Committee**

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*Department of Environmental Biology*

**Anna Barra Caracciolo**
*Head of Research Water and Soil Ecology Lab*
*Water Research Institute - National Research Council*

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*Senior Researcher*
*Italian National Agency for New Technologies, Energy and Sustainable Economic Development*