

19–20 FEBRUARY 2026

VAN DER VALK
AIRPORTHOTEL
DÜSSELDORF –
GERMANY



SUCCESSFUL R&I
IN EUROPE 2026
13th EUROPEAN
NETWORKING EVENT

Smart Irrigation and Circular Agricultural Waste-to-Value Systems

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Boğaziçi University – Center for Targeted Therapy Technologies (CT³)





Topic(s) addressed:

•**HORIZON-CL6-FARM2FORK-01**

Digital agriculture in water- & nutrient-scarce regions

•**HORIZON-CL6-CLIMATE-02**

Future-proof water infrastructures

•**HORIZON-CL6-ZEROPOLLUTION-03**

Pollution prevention and mitigation in agriculture



Project idea

Problem Statement

Agricultural regions face simultaneous challenges:

- Water losses in irrigation infrastructure
- Fragmented agricultural waste management
- Nutrient losses and soil degradation
- Diffuse pollution from residues and open burning
- These issues are usually addressed separately, limiting systemic impact

Project Idea

An integrated Water–Nutrient–Waste Nexus approach combining:

- Smart irrigation & reservoir monitoring
- Circular agricultural waste valorisation
- Nutrient & pollutant analytics
- Digital decision-support tools

Pilot Reference

Yalova–Altınova (Sermayecik) reservoir and surrounding agricultural areas



Main expertise offered / sought

Expertise Offered (Boğaziçi University – CT³)

- Environmental & nutrient analytics
- Sensor-based monitoring systems
- Circular bio-based process integration
- Horizon Europe coordination experience
- Strong IP & technology transfer capacity

Intended Role

- Coordinator or Core Research Partner

Expertise Sought

- Soil science & agronomy
- Environmental chemistry & ecotoxicology
- Digital twin & data platform developers
- Regional authorities & farmer organisations
- EU pilot replication partners



Other Project ideas

Agricultural Waste Recycling (Mycelium-based Materials) - AgriMycoRe

Recycling Agricultural Residues into Mycelium-Based Biodegradable Materials

- **HORIZON-CL6-2026-01-CIRCULARBIO-02 - “Circular bio-based solutions for sustainable production and consumption systems”**

CLIMWATER-MODELS

Integrated Meteorological and Hydrological Modelling for Climate-Resilient Agricultural Water Systems

- **HORIZON-CL6-2026-01-CLIMATE-02 - “Climate-resilient water management and adaptation strategies for agriculture”**



Contact details

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