

AdSWiM | UNIST-FGAG | WP 5 presentation

KoM | Udine | 9-10.04.2019.

UNIVERSITY OF SPLIT

Officially established in 1974.

University of Split



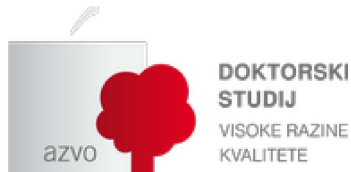
- ▶ 11 faculties
- ▶ 1 Academy of Arts
- ▶ 4 university departments
- ▶ 24,000 students
- ▶ 980 academic staff
- ▶ more than 150 study programmes

About FGAG

FGAG

The Faculty has its own premises since the day it was founded

- ▶ 8400 m² area
- ▶ 7 study programmes
- ▶ 22 departments
- ▶ High quality PhD programme
- ▶ 11 laboratories
- ▶ 900+ students



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Città di Pescara
Regione del Friuli Venezia Giulia



ZAVOD ZA JAVNO ZDRAVSTVO ZADAR



Major projects in water resources and environmental sciences in last 10 years

Completed:

❑ EU funded research projects:

- 6 FP7 projects
- H2020 project
- 1 Interreg Med projects

❑ International projects:

- 3 World Bank funded projects
- project funded by UNEP
- project funded by UNECE
- 2 projects funded by GEF



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DEGLI STUDI
DI UDINE
hic sunt futura



COMUNE DI
TRIESTE



Acque del
Friuli



OGS



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Sindacato degli Idrogeologi



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Izvor ploče



VODOVOD I
KANALIZACIJA



METRIS



HELEALab
BIOTECHNOLOGY



UNIVERSITY OF SPLIT,
FACULTY OF CIVIL ENGINEERING,
ARCHITECTURE AND GEODESY

Current projects in water resources and environmental sciences

❑ EU funded research projects:

- **1 Interreg Med project**

Plastic Busters MPAs project – Preserving biodiversity from plastics in Mediterranean Marine Protected Areas, cooperation between 14 partners from Mediterranean area, financed from European Regional Development Fund (ERDF), FGAG share **400.000 €**

- **6 Interreg CBC Italy-Croatia**

Cross-border cooperation projects between Italy and Croatia, financed from European Regional Development Fund (ERDF), FGAG total share approx **1,5 million €**

- **Scientific Center of Excellence (STIM-REI)**

Center of excellence for science and technology integrating Mediterranean region (STIM-REI), research, innovation and education, ERDF funding, FGAG share **500.000 €**

- **CAAT (Coastal Autopurification Assessment Technology)**

CAAT project focused on integrated coastal management of pollution, ERDF funding, FGAG share **900.000 €**

- **INFRA**

Implementation of scientific infrastructure at FGAG, creation of new 11 laboratories in the area of environmental science and water resources, structural engineering, architecture and geodesy, ERDF funding, **11,4 million €**



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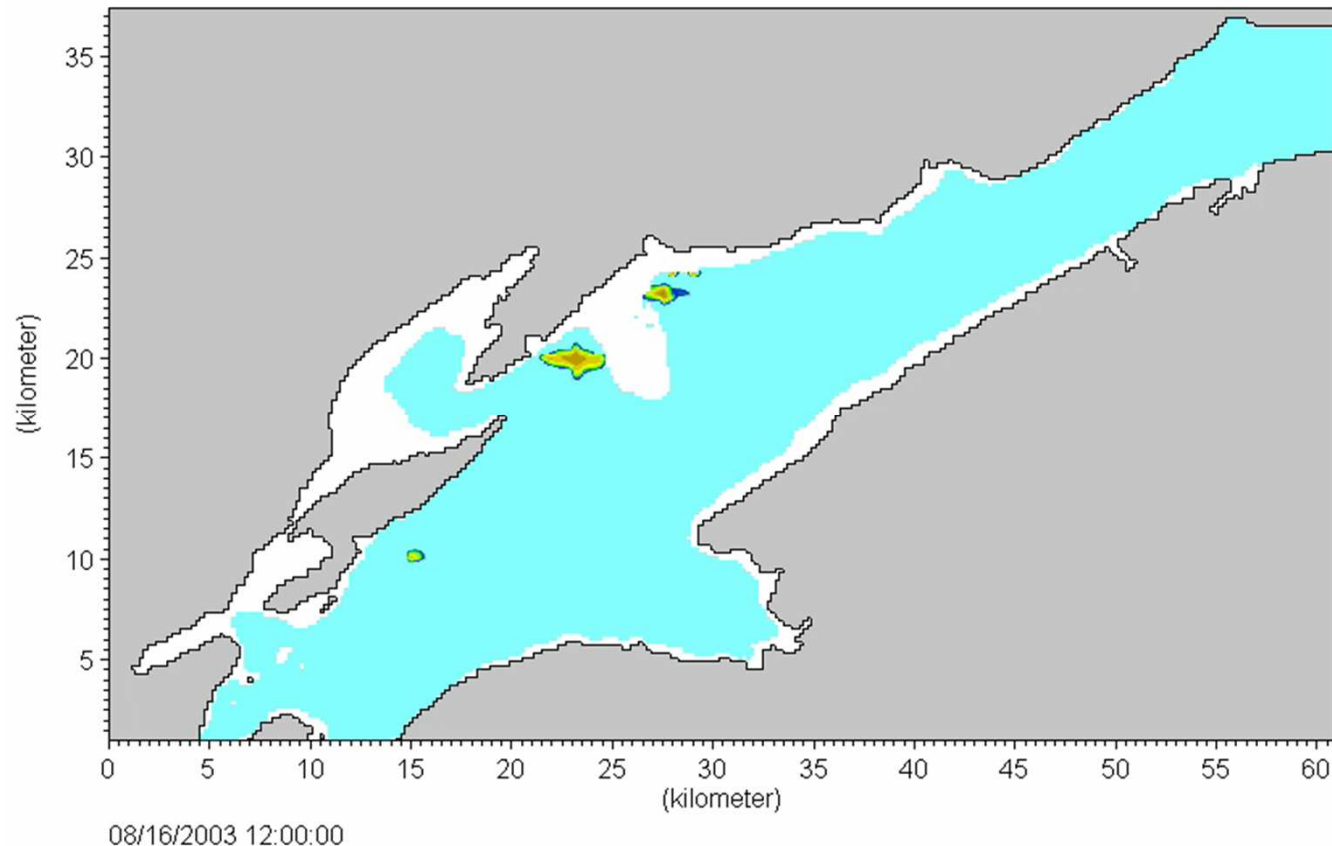


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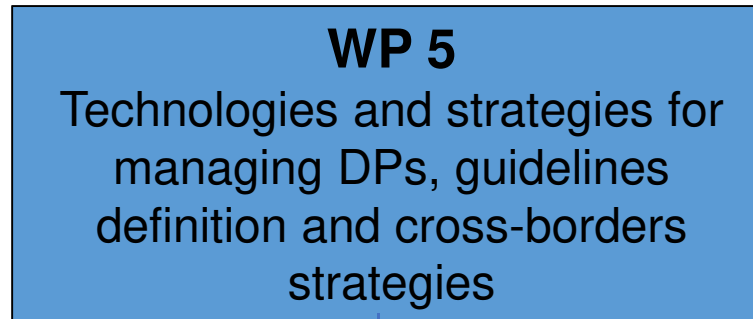


Numerical modeling of Joint operation of submarine discharges in Split-Brac aquatory

- Project funded by the World Bank
- Model displays spatial and temporal distribution of coliform bacteria and phosphorus as result of joint operation of 9 submarine discharge points
- Increased organic loading and consumption of oxygen during degradation of organic matter results in significant reduction of dissolved oxygen in the bottom layer reducing visibility and altering ecological balance



WP 5 Leader: UNIST-FGAG



5.1 Investigation on the cross-borders DPs technologies, management strategies, transfer of knowledges

5.2 WWT process innovation and test of the optimized AdSWiM solutions

5.3 Joint and shared cross-borders strategies of WWT plant management and legislative action proposals



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5.1 Investigation on the cross-borders DPs technologies, management strategies and transfer of knowledge (Involved partners: **CAFC, VIK, Mun. Pescara, Mun. Udine, Izvor Pl.**)

A5.1.1

- Survey on cross-borders DPs technologies, management of WWT plants based on specific territorial needs (**M1-M8 ?**)
- Overview of treatment of plants involved in the project, the strengths and criticalities of the technologies used and the methods of management will be analyzed and compared to the innovative treatment, control and analysis systems developed during WP 3 & 4 with a SWOT analysis (**M1-M8 ?**)

Deliverable:

- Report on technologies and management of cross-border policy adopted in DP plants and swot analysis



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5.1 Investigation on the cross-borders DPs technologies, management strategies and transfer knowledge (Involved partners: **CAFC, VIK, Mun. Pescara, Mun. Udine, Izvor Pl.**)

A5.1.2

- Develop a cost-benefit analysis of the improved management modes based on the innovative treatment proposed (**M8-M12**)
- Delineating the presence of "hot spots" with the highest risks of coastal pollution (**M3-M8 ?**)

Deliverable:

- Report of DP costs- benefit analysis (**D5.1.2**)

5.2 WWT process innovation and testing optimized AdSWiM solutions (Involved partners: CAFC, VIK, OGS, Izvor Pl.)

A5.2.1

- Analyzing the implementation of proposed innovative technologies on pilot plant to increase DP efficiency (**M12-M24**)

Deliverable:

- Report of selected strategies to test how to increase the depuration process efficiency (**D5.2.1**)

A5.2.2

- Analyzing the efficacy of innovative technology and evaluating the administrative feasibility of pilot plant preparation for testing procedure (**M12-M24**)

Deliverable:

- Report of the evaluation of efficacy of the novelty tested and on administrative feasibility and pilot plant preparation to test photo-disinfection efficacy on target faecal bacteria and on bacteria possibility selected among the emerging pathogens (**D5.2.2**)



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5.2 WWT process innovation and testing of optimized AdSWiM solutions (Involved partners: CAFC, VIK, OGS, Izvor PI.)

A5.2.3

- Feasibility study focused on identifying actions and technologies to restore balance between nutrients and realization of reparation areas (**M18-M24**)

Deliverable:

- Feasibility Study for identified technologies (**D5.2.3**)

A5.2.4

- Analyzing the effect of variation in sludge composition on the sludge treatment procedure (**M12-M24**)

Deliverable:

- Report on sludge variation due to the intervention at water line (**D.5.2.4**)

A5.2.5

- Analyzing the mitigation technologies for adverse effects of treated WW (**M12-M24**)

Deliverable:

- Report on mitigating practice of treated WW impacts on the surrounding sea



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5.3 Joint and shared cross-borders strategies of WWT plant management and legislative action proposals (Involved partners: **Mun. Pescara, Mun. Udine, CAFC, VIK, Izvor Pl., PHI**)

A5.3.1

- The common document developed includes the definition of a set of shared policy in water management and quality objectives (**M18-M24**)

Deliverable:

- Report on shared policy of WW related management and quality issues (**D5.3.1**)

A5.3.2

- Comparison on legislative framework with extrapolation of rules and objectives (**M18-M24**)

Deliverable:

- Report of legislative proposal for a cross-border WW management (**D5.3.2**)

A5.3.3

- Development of training modules to disseminate the project results and knowledge (**M12-M24**)

Deliverable:

- Training package to form “knowledge transmitters” of the whole project results (**D5.3.3**)

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Thank you for your attention



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