OFF-SOURCE COST ACTION WORKSHOP

Unlocking Offshore Freshened Groundwater: Innovations for Water Security and Sustainability

25 September 2023

09:00 – 16:00

University of Malta, Valletta Campus

Organizing committee

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Description

Water scarcity and deteriorating water quality present pressing challenges that require innovative solutions. Our working group within the **OFF-SOURCE Cost Action** is tasked with identifying potential applications for Offshore Freshened Groundwater (OFG) systems and bridge the technological and economic feasibility gaps. This workshop will explore the key considerations including the relationship between water demand and OFG feasibility, implementing desalination technologies, and leveraging insights from the hydrocarbon industry for water applications. During each session, we will engage in discussions with relevant experts, and identify concrete steps needed to realize the resource potential of OFG.

Key Objectives

- Gather insights from organisations involved in water, hydrocarbon exploration, offshore engineering, and water treatment and management to discuss the feasibility of OFG
- Propose a range of cost-effective infrastructure solutions for OFG exploitation.
- Define the scope of Short Term Scientific Missions to target specific technological gaps
- Prepare a white paper and news media article to disseminate the outcomes of the workshop

Workshop Agenda

SESSION 1 ASSESSING WATER DEMAND AND OFG FEASIBILITY

- Understanding the demand and quality of water for domestic, industrial, and agricultural use.
- Evaluating the feasibility of OFG systems, considering minimum required volume, salinity distribution, and the impact of water stress.

SESSION 2 SOLUTIONS FOR VARIABLE RAW WATER QUALITY

- Addressing the challenges of variable raw water quality through innovative solutions.
- Conducting comprehensive cost evaluations, including infrastructure, maintenance, desalination costs, brine treatment, disposal, and regional considerations.

SESSION 3 LEVERAGING HYDROCARBON EXPLORATION TECHNOLOGY

- Summarizing hydrocarbon exploration technologies applicable at varying depths and their transferability to water applications.

SESSION 4 BRAINSTORMING AND COLLABORATION

- Engaging in a creative brainstorming session to generate new goals, incentives, and potential areas of collaboration with organizations and companies.
- Discussing strategies to attract more experts and stakeholders to participate in WG3 and the COST Action.

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um.edu.mt/l/ax9cj

Please note that travel and accommodation costs will be reimbursed by COST for invited attendees according to the standard COST Action rules.

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