



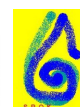
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Press release #1

REAL-LIFE DEMONSTRATION OF OCEAN MULTI-USE SYSTEMS ACROSS EUROPE

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Real-life demonstration of ocean multi-use systems across Europe

By the UNITED project consortium, 8 June 2021

Ocean multi-use can contribute to a more sustainable and efficient use of ocean resources, providing tangible economic and environmental benefits. Thanks to its five demonstration pilots across European seas, the UNITED project will provide evidence that multi-use can be a viable approach to contribute to the EU Blue Growth Strategy and address spatial competition for both the European maritime industry and marine ecosystems. Running until 2023, UNITED will address current bottlenecks relating to the large-scale installation of ocean multi-use infrastructure, focusing on combinations of renewable energy, aquaculture and tourism.

The large-scale installation of multi-use pilots in real maritime environment

UNITED does not only evaluate the viability of ocean multi-use on paper, it does so in the real world: the project is built around five demonstration pilots that put multi-use into practice, both in near-shore and off-shore environments. The pilots are located in three European regional seas – spanning Belgium, the Netherlands, Germany, Denmark and Greece – subject to a wide variety of environmental and regulatory conditions. Each of the five UNITED pilot sites combines at least two economic activities, ranging from wind or solar renewable energy, aquaculture, bio-resources, oyster restoration, recreational diving and boat tours.

Since de facto implementation is a core principle of the UNITED project, a viable approach to multi-use will be developed across the pre-operational, operational and post-operational phases, including a business plan and a commercial-economic feasibility assessment. The results of the pilots will also address possible trade-offs and costs to other sectors. Demonstrating the success of these pilots will boost the capacity of the blue economy within European waters, increasing the efficiency and multi-functionality between the traditionally competing interests of the maritime sectors involved.

From research to practice: increasing the technological and commercial readiness of multi-use solutions

Over the past decade, several initiatives have been undertaken to stimulate multi-use solutions and the fundamentals of multi-use have been further developed. Previous projects, such as MERMAID, TROPOS or H2Ocean, have developed promising multi-use concepts and technologies, but most of these project findings have yet to be implemented or scaled up. Thus, examples of effective and efficient multi-use are rare, despite considerable efforts to stimulate this new concept.



To overcome this bottleneck, the challenge will be to move existing multi-use solutions from the development stage (TRL5) to demonstration in an operational environment (TRL7). UNITED, in collaboration with relevant producers and a broad community of stakeholders, will contribute to bridging this technological gap by analyzing the barriers to multi-use and designing measures to overcome them under five pillars: technological, economic, environmental, societal, and legal (e.g. policy governance). The viability of multi-use solutions proposed in pilots will also be measured according to each pillar, in line with UNITED's ambition to promote a synchronized and responsible management of marine activities for healthy, productive, safe, and secure operations - which are essential for boosting the blue economy.

Viable solutions to accelerate blue growth across Europe

European seas are undergoing massive marine infrastructure development and face increasing competition for space between activities. By showcasing spatial compatibility and synergies between offshore wind, floating solar and other marine economic activities (among others), UNITED will increase social acceptance of these renewable energy projects and mitigate conflicts with other sectors. The multi-use solutions implemented under UNITED will also demonstrate the economic feasibility of developing offshore aquaculture by combining mussel, seaweed, and oyster installations with offshore wind. Additional economic opportunities for sustainable aquaculture in multi-use systems will be identified and promoted, as this is an important sector in the EU Blue Growth Strategy with a potentially significant contribution to EU competitiveness.

Through demonstrating the economic feasibility of multi-use solutions, UNITED will also contribute to the overall competitiveness of European businesses. The UNITED Commercialization Roadmap will include steps for wider multi-use implementation and upscaling. Ultimately, a number of operational multi-use sites will be added to the portfolio of EU industrial players and SMEs. Bringing cutting-edge technology to an operational stage in the EU will open up possibilities for exports of multi-use technologies, operations and monitoring systems, while providing first-mover benefits to the EU with lasting economic effects.

Overall, UNITED will change the perception of maritime sectors, so that future developments are not seen as a threat, but rather as an opportunity for existing local businesses and society-at-large e.g. through local cooperative ownership. As a result, marine infrastructure such as offshore wind turbines will no longer be perceived as eyesores, but rather as monuments to sustainability that can be visited by tourists whilst providing renewable energy for sustainable aquaculture.

For more information about the UNITED project, visit <https://www.h2020united.eu/> or contact the project coordinator at Deltares, Ghada El Serafy: ghada.elserafy@deltares.nl
