

SCIENTISTS GATHER IN SOPOT FOR OceanICU, A PROJECT SEEKING TO GAIN KNOWLEDGE OF THE OCEAN BIOLOGICAL CARBON PUMP, A NATURAL PROCESS PROVIDING A TRILLION DOLLAR SERVICE TOWARD SLOWING DOWN CLIMATE CHANGE

20-May 2025, SOPOT, Poland.

The 30-partner Pan-European OceanICU consortium is holding a week-long meeting at the headquarters of the Institute of Oceanology of Polish Academy of Sciences (IO PAN), for the project's half-way point. On the edge of the Baltic Sea, Sopot is an ideal stage for partners to share findings and plan next steps.

The Ocean takes up about 25% of the carbon we add to the atmosphere. If this was not the case, impacts of Climate Change would be stronger. **OceanICU** is a five-year Horizon Europe and UK R&I funded project working toward achieving a new understanding of the ocean biological carbon pump (**BCP**) to provide fundamental knowledge and tools to help policy makers, regulators and ocean industry—fishing, mining and the wider Blue Economy—manage and understand the impact of their actions on ocean carbon. This will ultimately lead to a better approach for addressing climate change in alignment with the **EU Green Deal** to reduce the net emissions of greenhouse gasses to Zero by 2050. The consortium comprises leading universities and research institutes from 14 European nations, and brings together expertise and methods from across the ocean science spectrum as well as social science, software development and data science. The project's multi-disciplinary work plan includes measuring and quantifying key ecological processes within the BCP related to the ecosystem structure – from enormous minke whales to tiny plankton—to understand how biological organisms living in the ocean control carbon uptake and storage, in addition to conducting workshops with industry and policy stakeholders, improving models and producing a user-friendly decision support tool that will enable accurate forecasting scenarios to inform policy.

“A service valued at a trillion dollars is definitely worth all the collaborative research and investment needed to truly understand it,” said Prof. Richard Sanders, lead coordinator of the project from NORCE (Norway). “And after two and half years, this week's meeting is bringing everybody together to take stock of the excellent work that has been achieved to date and to synthesise our findings. It's our Janus moment,” he added, referring to the Roman mythological character Janus and the junction in time symbolising transitions. “It's a crucial point for us now to determine how we carefully pivot towards achieving a meaningful impact through the dissemination of our results for the benefit of the science community, the blue economy industry, policy and wider society.”

Among the highlights of the achievements over the first part of the project are contributions toward 28 scientific papers published in high impact journals, the completion of important field work at sea on numerous expeditions, improvement of models, and a prototype of the Decision Support Tool currently available on the game-changing EDITO platform. The project will also deliver an effective educational pathway to early career scientists and European youth interested in ocean observation.

“We are pleased to host our colleagues from around Europe and once again use the Institute’s facilities as a venue for important discussions and decisions shaping the future of the European ocean observing and research” said Dr Maciej Telszewski. “Our continuous involvement in numerous European projects reflects our scientific strength as an Institute and confirms high expertise of individual researchers invited to a variety of consortia” he adds. IO PAN contributes to OceanICU with a leading role in development of a blueprint for the global surface ocean carbon observing aimed at delivery to the Global Greenhouse Watch and other policy and management tools.

For more information about OceanICU, please visit the website.

Project website: <https://ocean-icu.eu/>

Partner Network: <https://ocean-icu.eu/partners/>

Paper referenced in text: [Global distribution, quantification and valuation of the biological carbon pump](#)

Demo of the OceanICU DST prototype on EDITO: <https://www.youtube.com/watch?v=2i-7PhxpCV8>

Contact:

Maciej Telszewski | Instytut Oceanologii PAN | IOCCP | telszewski@iopan.pl | www.iopan.pl



neceffect those of the European Union. Neither the European Research Executive Agency, Neither the European Union nor the grant authority can be held responsible for any use made of the information contained in this publication.



Institute of Oceanology
Polish Academy of Sciences

