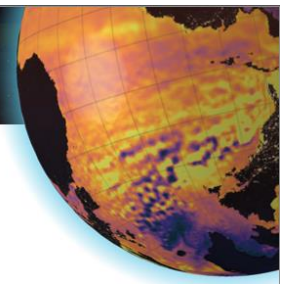
FOCCUS: towards more advanced and streamlined European coastal monitoring and forecasting

The Horizon Europe programme of the European Commission has launched the Forecasting and Observing the Open-to-Coastal Ocean for Copernicus Users (FOCCUS) project (foccus-project.eu), building on the infrastructure backbone of the Copernicus Marine Environment Monitoring Service (CMEMS). In collaboration with Member State Coastal Systems (MSCS) and coastal users, FOCCUS aims to improve and advance the coastal dimension of CMEMS by enhancing existing capability, developing innovative coastal products focusing on three key pillars: developing new coastal observations, developing advanced hydrology and coastal models, and establishing a unified coastal system for enhanced management. Goals include improved production chains and performance in coastal ocean forecasting systems in and downstream of CMEMS, and improved societal relevance of the systems demonstrated in use cases. CMEMS, EUROGOOS and EMODnet also benefit from these developments. FOCCUS will leverage the use of pan-European high resolution remote sensing (R/S, satellite and land-based) and coastal in situ observation data. New coastal products will be created by data fusion, implementing new technologies and approaches including the use of Artificial Intelligence (AI) methods to improve the quality of coastal observations. FOCCUS will build on existing pan-European hydrological models and will develop a pan-European ensemble to provide improved river discharge in terms of volume flux and tracers for ocean models. New methodologies in MSCS production chains will be tested, taking advantage of stochastic simulation, ensemble approaches, and AI technology. FOCCUS will facilitate an advanced and seamless monitoring and forecasting of the ocean from the CMEMS global/regional systems to MSCS through pilot demonstrations of new products and improved co-produced services that address selected Environmental and Societal Challenges. FOCCUS aims to provide the high quality, trusted marine knowledge needed for evidence-based management and protection of the coastal zone, the solutions to enable the transition of the blue economy to be fully sustainable, climate-neutral and circular, and the tools and applications that will build resilience to climate change for European citizens and society. The FOCCUS project consortium consists of 19 partners from 11 countries covering ocean processes knowledge, observations, multi-scale modeling and technological expertise. FOCCUS is funded by the European Union (Grant Agreement No. 101133911). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Health and Digital Executive



Agency (HaDEA). Neither the European Union nor the granting authority can be held responsible for them.

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