



2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

Registrierte Programme, Projekte und Contributions zur UN-Ozeandekade mit Lead Institution in Deutschland (Stand: Januar 2025)

Projektname	Art von Dekaden-Aktion (Programme, Project, Contribution)	Koordinieren des Institut	Beschreibung	Laufzeit		
Global Ocean Oxygen Decade - GOOD	Programme	GEOMAR Helmholtz Center for Ocean Research Kiel and Kiel University	Oxygen dissolved in seawater supports the largest ecosystems on the planet. It is alarming that the ocean is losing oxygen, termed ocean deoxygenation, at a rapid rate, primarily due to global warming by anthropogenic greenhouse gas emissions, and pollution by nutrients and organic wastes particularly in coastal waters. The Decade Programme will raise global awareness about ocean deoxygenation, provide knowledge for action and develop mitigation and adaptation strategies and solutions to ensure continued provision of ecosystem services, and minimize impacts on the ocean economy through local, regional, and global efforts, including transdisciplinary research, innovative outreach, and ocean education and literacy.	01.05.2021-31.12.2030	CHALLENGE 2: Protect and restore ecosystems and biodiversity CHALLENGE 3: Sustainably feed the global population CHALLENGE 5: Unlock ocean-based solutions to climate change CHALLENGE 8: Create a digital representation of the Ocean CHALLENGE 9: Skills, knowledge and technology for all	Andreas Oschlies; Kirsten Isensee; Marilaure Gregoire; Paul Morris



2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

Digital Twins of the Ocean - DITTO	Programme	GEOMAR Helmholtz Center for Ocean Research Kiel and Kiel University	DITTO will establish and advance a digital framework on which all marine data, modelling and simulation along with AI algorithms and specialized tools including best practice will enable shared capacity to access, manipulate, analyse and visualise marine information. It will enable users and partners to create ocean related development scenarios addressing issues such as energy, mining, fisheries, tourism and nature-based solutions. Digital-Twins can quantify benefits and environmental change and provide powerful visualizations. DITTO will empower ocean professionals including scientific users to create their own local or topical digital-twins-of-their-ocean issue by using standard workflows.	01.07.2021- 30.06.2026	Alle 10 Challenges	Martin Visbeck
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Antarctica Sci&Infra for Synchronous Observation (Antarctica InSync)</p>	<p>Programme</p>	<p>Alfred Wegener Institute, Helmholtz Center for Polar and Marine Research (AWI)</p>	<p>This proposed program addresses the need for large, collaborative and synchronous observation, to generate data and knowledge to understand, protect and sustainably manage the Southern Ocean and Antarctica including ocean, land and atmosphere. Institutions operating polar infrastructure assembled in COMNAP will be asked to coordinate actions to the program. The preparatory phase will happen in 2024-2026, establishing alliances, working groups with stakeholders, logistic teams and a framework of collaboration including FAIR data management. The implementation phase with fieldwork and synthesis will be in 2027-2030. Through community activities, SOOS, SCOR and SCAR have already described many key challenges, questions and needs for research to decipher the drivers, impacts and feedback mechanisms of this key region with the global ocean. The program will be open to countries without infrastructure, various NGOs, foundations and industry.</p>	<p>1.10.2023-3 1.12.2030</p>	<p>CHALLENGE 2: Protect and Restore Ecosystems, CHALLENGE 5: Ocean-Climate Nexus, CHALLENGE 7: Ocean Observation</p>	<p>Antje Boetius</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>ARTPORT_ WE ARE OCEAN Global Program</p>	<p>Project</p>	<p>ARTPORT_ making waves</p>	<p>ARTPORT_ WE ARE OCEAN is a transdisciplinary art project implying multiple stakeholders (artists, students, scientists, policy makers, teachers, curators, activists) worldwide to raise awareness and engage in dialogue about the environmental condition of the ocean and the role humans play in its current and future state. The program started in 2019 and will engage with numerous countries until 2030 to work particularly with young and underprivileged people around the question of how we interact with the ocean and how interdependent humans and the ocean are. The overall goal is to raise scientific and political awareness through the arts, particularly among young people.</p>	<p>17.01.2021-31.12.2030</p>	<p>CHALLENGE 10: Change humanity's relationship with the ocean</p>	<p>Anne-Marie Melster</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

Ocean Knowledge Base	Project	German Ocean Foundation	In a joint effort "Springer Nature, the "German Ocean Foundation, the "German Society for Marine Research and the "VBIO - Verband Biologie, Biowissenschaften & Biomedizin in Deutschland" would like to establish a project where we try to reach out to non-scientists like political decision makers, journalists, and the public and help them find, easily access and recombine the information they need from Springer Nature as a publisher.	01.01.2022-31.12.2030	CHALLENGE 9: Skills, knowledge and technology for all	Frank Schweikert
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Beyond One Ocean Health</p>	<p>Project</p>	<p>Center for Ocean and Society, Kiel Marine Science, Kiel University</p>	<p>The decade project Beyond One Ocean Health advances and integrates a range of concepts recognising the impacts of global environmental change on: (i) the health of ecosystems, (ii) non-human organisms and (iii) humans with an emphasis on the ocean domain. We envisage building on common framings such as 'Environmental justice', 'Ecohealth', 'Planetary Health' or 'One Health' (e.g. Buse et al, 2018; Blenckner et al. 2021) perspectives into the Ocean Decade. Thus the Beyond One Ocean Health perspective includes issues related to: health and disease in the ocean, ocean-mediated human disease, ocean-related prevention, healing including physical and spiritual well-being concepts, moral and justice of interventions with environmental health outcomes, understanding and living within planetary limits. Most perspectives have in common the desire to safeguard, restore or build regimes under which modern civilisation can flourish.</p>	<p>01.03.2022-31.12.2025</p>	<p>CHALLENGE 1: Understand and beat marine pollution CHALLENGE 8: Create a digital representation of the Ocean CHALLENGE 10: Change humanity's relationship with the ocean</p>	<p>Marie-Catherine Riekhof</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Aleutian Trench Biodiversity Studies (AleutBio)</p>	<p>Project</p>	<p>Senckenberg Research Institute and Natural History Museum</p>	<p>The AleutBio expedition aims to shed light on the distribution of marine organisms and contribute to the understanding of changes in biodiversity and its distribution in the North Pacific, the gateway to the Arctic. Thus, in addition to biogeochemical studies, the goal of the AleutBio Expedition SO293 is to analyze seafloor organisms of all sizes (protists, meio-, macro- and megafauna) in the eastern Bering Sea as well as in the Abyssal and Hadal areas of the eastern Aleutian Trench. We plan to describe biodiversity, highlight biogeographic relationships, and examine species connectivity with those from the Arctic Ocean and Kuril-Kamchatka Trench in times of rapid climate change. Bathymetric mapping will be used to explore the bottom topography to define the most appropriate location for instrument deployment. We will analyze the seafloor topography (bathymetry), biogeochemistry, and microbiology, as well as the systematic composition, species diversity, and biogeography from protists to meio-, macro-, and megafauna in the Aleutian Trench, and investigate the evolution of selected species.</p>	<p>01.01.2022-03.09.2024</p>	<p>CHALLENGE 1: Understand and beat marine pollution; CHALLENGE 2: Protect and restore ecosystems and biodiversity</p>	<p>Angelika Brandt</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

IceDivA	Project	Senckenberg am Meer, German Center for Marine Biodiversity Research	By sampling Northwest and Northeast Atlantic deep-sea basins, IceDivA aims to extend the previous Northeast Atlantic deep-sea program, IceAGE, also linking with the South Atlantic deep-sea programme DIVA (Latitudinal Gradients in BioDiversity in the deep Atlantic) and those in the Southern Ocean. This will provide pan-Atlantic deep-sea samples to investigate topics regarding species richness and evolution. To map the species diversity, and answer questions on the connectivity of deep-sea fauna along latitudinal gradients in the pan-Atlantic Ocean, we will sample in 3,000 m to 5,500 m water depths bridging the Atlantic knowledge gap between prior expeditions. The faunal analysis will follow an integrative approach, combining modern genomic methods with traditional, morphological taxonomy. Via cooperative data/sample sharing we will support the BMBF project PLASTISEA as well as the EU projects iAtlantic and HOTMIC.	08.01.2021-15.01.2024	CHALLENGE 1: Understand and beat marine pollution CHALLENGE 2: Protect and restore ecosystems and biodiversity CHALLENGE 7: Expand the Global Ocean Observing System	Saskia Brix
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Protection and sustainable use of marine areas (sustainMare)</p>	<p>Project</p>	<p>Helmholtz-Zentrum Hereon / Institute of Coastal Systems - Analysis and Modeling</p>	<p>The DAM research mission “sustainMare” analyses and classifies the use of and the pressures on marine spaces in such a way, that a scientifically sound basis is created for decisions by politics, authorities and the economy. A broad-based transdisciplinary research approach is chosen. More than 250 researchers in two pilot projects and five research networks are investigating the ecological, economic and social impacts of human use and pollution in North and Baltic Sea with a specific focus on the German Exclusive Economic Zone and German coastal waters. The provision of concrete options for action and consistent implementation of measures for knowledge transfer and data provision are intended to ensure the subsequent use of the results in politics and society. The aim of the research mission is to develop options for sustainable use of marine resources and ecosystem services that will support the achievement of the EUs target of a Good Environmental Status (GES).</p>	<p>01.01.2021-30.11.2024</p>	<p>CHALLENGE 4: Develop a sustainable and equitable ocean economy</p>	<p>Corinna Schrum</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

C-SCOPE in Action	Project	Federal Maritime and Hydrographic Agency (BSH)	<p>C-SCOPE (https://c-scope.geomar.de/), the joint project this Decade Project is based on, aims to enhance marine carbon observation, by 1. Using Ship-of-Opportunity (SOOP) lines to measure the CO2 uptake capacities 2. Connecting BGC-Argo and surface measurements of SOOP lines to explore synergies for better observational data products. 3. Assessing the structural dimension of marine CO2 observations and their implications in order to develop a concept for Open Ocean Science. The Decade Project C-SCOPE in Action incorporates the ongoing work and goes beyond it, in its time frame and objectives. In particular it aims to sustainably maintain the above mentioned observation systems, to contribute with the obtained findings to the ocean carbon community, in particular the Global Ocean Acidification Observing Network (GOA-ON) and the affiliated Ocean Decade programme Ocean Acidification research for Sustainability (OARS) and to strengthen the interoperability between the databases.</p>	01.01.2021-31.12.2025	<p>CHALLENGE 5: Unlock ocean-based solutions to climate change CHALLENGE 7: Expand the Global Ocean Observing System CHALLENGE 9: Skills, knowledge and technology for all</p>	Matthias Wunsch
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

Coastal Pollution Toolbox	Project	Helmholtz-Zentrum Hereon	<p>The key scientific theme is knowledge transfer of scientific findings: The CPT serves as knowledge hub and information platform for decision-makers and scientists to obtain information services for action. Tools provides a showcase that addresses the challenge of marine and coastal pollution in temperate and polar coastal zones. The CPT will deliver predictive capacities. services and products for marine and coastal systems. Some products will link field data with complex models and applications with visualisation allowing for forecasting and prediction. The activity is open for pilot areas (PredictOnTime). This allows to improve decision-making in a cost-effective manner. A co-development framework will ensure the science basis for actionable knowledge. The “box of tools” is intended to be co-developed with stakeholders and users using contemporary trans-disciplinary methods. This facilitates interest and use by a range of coastal and marine decision-makers.</p>	03.01.2023- 31.12.2027	<p>CHALLENGE 1: Understand and beat marine pollution; CHALLENGE 2: Protect and restore ecosystems and biodiversity; CHALLENGE 3: Sustainably feed the global population</p>	Ralf Ebinghaus
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Marine carbon sinks in decarbonisation pathways (CDRMare)</p>	<p>Project</p>	<p>GEOMAR Helmholtz Centre for Ocean Research Kiel; Leibniz Institute for Baltic Research Warnemünde (IOW); MARUM - Center for Marine Environmental Sciences. University of Bremen; Leibniz Centre for Tropical Marine Research (ZMT)</p>	<p>To support pathways to mitigate the increasingly drastic consequences of human-made climate change & to achieve the Paris Agreement goals, the removal of atmospheric CO2 is an important measure alongside massive CO2 emission reductions. The research mission CDRmare (https://cdrmare.de/en/) investigates whether and to what extent the ocean, its habitats & ecosystems can play a significant role in removing and storing CO2 from the atmosphere. It also considers linkages with & impacts on the marine environment, Earth system, and society, as well as monitoring approaches in a changing environment. The research mission will establish relevant assessment criteria and, in the long term, strategies towards the sustainable use of marine carbon storage & removal at national, regional to global scales, in close dialogue with stakeholders. CDRmare outcomes can be used e.g. for knowledge exchange, capacity development activities and co-designed solution roadmaps that will be developed under GEOS.</p>	<p>08.01.2021- 31.07.2024</p>	<p>CHALLENGE 4: Develop a sustainable and equitable ocean economy CHALLENGE 5: Unlock ocean-based solutions to climate change CHALLENGE 9: Skills, knowledge and technology for all</p>	<p>Andreas Oschlies</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Shipwrecks as Artificial Reef Structures</p>	<p>Project</p>	<p>Leibniz Centre for Tropical Marine Research (ZMT)</p>	<p>The project aims to evaluate the role of shipwrecks as artificial reef structures for marine and coastal communities in Sri Lanka. The biological value of shipwrecks is determined by its importance for species recruitment, food source, biodiversity, and sheltered habitat. Further investigation into the role of shipwrecks in the marine environment is required to identify their ecosystem services for marine and coastal areas. The shipwrecks will be evaluated from an ecological, historical, and socio-economic standpoint to understand their value for the development of marine communities, their support for local fisheries and tourism, and as a tool for sustainable marine resource management. This is an opportunity to strengthen scientific relations between Germany and Sri Lanka and cooperate on a novel field of research. Literature on the role of shipwrecks in Sri Lanka is limited and this project would be a valuable contribution to the protection of these cultural heritage sites.</p>	<p>01.08.2024-01.08.2027</p>	<p>Challenge 2: Protect and Restore Ecosystems, Challenge 9: Capacity Development, Challenge 10: Behaviour Change</p>	<p>Oscar Puebla</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

ORCHESTRA	Project	Alfred-Wege- ner-Institut Helmholtz-Ze- ntrum für Polar-und Meeresforsc- hung	The main aim of ORCHESTRA is to answer the questions that arise from the impacts of underwater noise on invertebrates. We will tackle this challenge through a combination of field surveys, laboratory and field experiments in a cross-basin comparative approach. We will investigate the effects of continuous AUN (Anthropogenic Underwater Noise) on the physiology, growth, reproduction, feeding, intraspecific communication, predator avoidance and mortality of key invertebrate species in multistressor laboratory setups. Further, we will evaluate the potential ensuing cascading effects on the function of those species in the ecosystem. In addition, we will assess the validity of the results obtained in the laboratory and complement them by using a combination of sampling and experimental studies in the field at different distances to continuous boat and OWF noise sources.	NA	CHALLENGE 1: Understand and beat marine pollution	Maarten Boersma
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Mangroves as Nature-based Solutions to Coastal Hazards in Eastern Ghana (MANCOGA)</p>	<p>Project</p>	<p>Helmholtz-Zentrum Hereon, GmbH; Department of Marine and Fisheries Sciences, University of Ghana; Institute of Environment and Sanitation Studies, University of Ghana</p>	<p>MANCOGA will use mangroves to develop a robust and participatory Nature-based Solution (NbS) to hazards such as climate change, flooding, coastal erosion and pollution in Ghana. It will also cover aspects of blue carbon, ocean acidification and biodiversity loss. The ultimate aim is increasing community resilience and affluence. MANCOGA will develop a decision support system building on existing structures and incorporating state-of-the-art technology, including the development of a Digital Twin.</p>	<p>NA</p>	<p>CHALLENGE 6: Increase community resilience to ocean hazards CHALLENGE 10: Change humanity's relationship with the ocean</p>	<p>Holger Brix, Edem Mahu and Kwasi Appeaning Addo</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Oceanographic and Ecological data for Nature-based coastal protection in Tunisia (ORIENTATE-TN)</p>	<p>Project</p>	<p>Alfred-Wegener-Institut, Helmholtz-Zentrum für Polar- und Meeresforschung (AWI) and University of Sfax (US)</p>	<p>The overall objective is to provide sustainable, cost-effective data and an ecologically sound alternative to facilitate the adaptive governance of erosion risk in Tunisia's most vulnerable coastal areas. The project will be carried out through a living lab approach involves cost-effective intertidal seagrass transplantation. Pilot sites will be used to monitor if this Nature-based solution approach could protect the coastline against further erosion processes. This project aims to serve as a blueprint for other beaches and coastal areas in Tunisia.</p>	<p>NA</p>	<p>NA</p>	<p>Karen Wiltshire, Eva-Maria Brodte, Lobna Boudaya and Lassad Neifar</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Participatory Modeling for Nature-based Solutions in the WIO-Region (PaMoNBS)</p>	<p>Project</p>	<p>Leibniz Centre for Tropical Marine Research (ZMT); Institute of Marine Sciences (IMS) University of Dar es Salaam</p>	<p>PaMo-NBS will provide policy makers with decision support tools to improve the implementation and planning of nature-based solutions and to identify needs and scenarios of an optimised use of local ecosystems for and with local communities in the Western Indian Ocean region. The primary outcome of this project will be the development of a decision support system that will give local decision makers the opportunity to engage coastal communities. The project aims to produce both a framework for local policy makers and coastal communities to develop a shared understanding of the role of the interconnected socio-ecological systems in providing NbS as well as concrete examples of pilot studies.</p>	<p>NA</p>	<p>CHALLENGE 1: Understand and beat marine pollution</p>	<p>Hauke Reuter</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Nature based Solutions for Mitigation of Watershed pollution: Cross-habitat facilitation by coastal seagrass meadows (SOMWAT)</p>	<p>Project</p>	<p>Helmholtz Institute for Functional Marine Biodiversity at the University of Oldenburg (HIFMB-UOL) , Institute of Marine Sciences (IMS) University of Dar es Salaam, Tanzania; Institute for Coastal and Marine Research (CMR) Nelson Mandela University, South Africa</p>	<p>The overall goal of this collaborative project is to assess the status of tropical (Tanzania) and temperate (South Africa) seagrass-reef ecotones and more specifically the role of seagrass meadows for reducing watershed pollution through nutrient, pollutant and pathogen removal for natural reef habitats and aquaculture, thereby improving livelihoods of local communities. The project aims to assess the strength of biogeochemical connectivity between seagrass and adjacent reef habitats under different environmental conditions. Both field surveys and experiments will help to unravel underlying mechanisms through which seagrasses can enhance water quality and thereby benefit local communities that rely on healthy reef-communities for food production and tourism</p>	<p>NA</p>	<p>CHALLENGE 5: Unlock ocean-based solutions to climate change</p>	<p>Prof. Peter Schupp, Leonard Chauka and Janine Adams</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Vaka Oceanstory Lab</p>	<p>Project</p>	<p>Okeanos Foundation for the sea</p>	<p>The "Vaka Oceanstory Lab » initiative by the Okeanos Foundation leverages traditional Polynesian sailing canoes, Vakas, as a platform for inspirational knowledge, exploration and social change. Crewed by indigenous knowledge holders and captained by indigenous celestial navigators, each Vaka sleeps 12 and transports up to 3 tons. Okeanos' Vakas have aided in disaster relief, connectivity, and research in the Pacific Ocean. As climate change intensifies, there is an urgent need to combine indigenous knowledge with the latest science to mitigate and adapt to changes. Over 2024-2026, two Vakas will serve as platforms for film-makers, indigenous knowledge holders, and story tellers, and will collect and share insights via partnerships with local communities, universities, museums and media platforms. By uniting tradition and science, VOL will aid in marine ecosystem management and will promote ocean literacy leading to a holistic and sustainable future for marine conservation.</p>	<p>01.01-2024 - 31.12.2026</p>	<p>CHALLENGE 2: Protect and Restore Ecosystems CHALLENGE 9: Capacity Development CHALLENGE 10: Behaviour Change.</p>	<p>Eliane Koller Valadier</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Long term observation program in the Baltic Sea (BalticObs)</p>	<p>Project</p>	<p>Leibniz Institut für Ostseeforschung, Warnemünde</p>	<p>Our long-term observation program with five cruises each year in the Baltic Sea (BS) is an integral part of our research program “Perspectives of coastal seas”. It provides time series on the variability of the hydrographic, chemical and biological parameters and processes for the research focus “Coastal seas in transition – Present, Past and Future Perspectives”. In addition, it also provides important basic data for the investigation of processes along the main gradients within the BS and from the North Sea to the Baltic Sea, thus supporting the work in research focus “Key Processes across Scales”. Our long-term observation programme provides the scientific basis for research of the natural variability of the BS ecosystem, anthropogenic influences (e. g nutrients load, microplastics) and the effects of climate change. All data are freely available to community. Our results support cooperation in the BS region and environmental policy assessments of the BS ecosystem status.</p>	<p>01.01.2024 - 31.12.2028</p>	<p>CHALLENGE 1: Marine Pollution CHALLENGE 2: Protect and Restore Ecosystems CHALLENGE 6: Coastal Resilience.</p>	<p>Oliver Zielinski</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Forecasting Ocean to Coasts, Connecting Users (FOCCUS)</p>	<p>Project</p>	<p>HELMHOLTZ-ZENTRUM HEREON GMBH (HEREON)</p>	<p>FOCCUS's aim is the co-production of ocean monitoring and forecasting information between Copernicus Marine operational global/regional systems and a pool of national coastal systems for different overarching uses (support to policies, blue economy and wider human activities). A seamless regional to coastal modelling co-designed framework will be built and implemented by developing interfaces and advancing the regional-coastal linked modelling systems, advancing observations needed for calibration / validation of systems, improving the land-to-ocean interface in regional and coastal systems, and through demonstration case studies that will integrate FOCCUS' R&I developments. Advances will be transferrable and upscalable to support improvement of coastal ocean monitoring and forecasting systems in the Global Coast. FOCCUS will apply open science by engaging end-users in the design of the applications and end-users, tailoring applications corresponding to societal needs.</p>	<p>01.01.2024- 31.12.2030</p>	<p>CHALLENGE 4: Sustainable Ocean Economy CHALLENGE 5: Ocean-Climate NexusChallenge CHALLENGE 8: Digital Representation of the Ocean</p>	<p>Joanna Staneva</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

Ocean Online - web-based information platform	Project	The German Marine Research Alliance (DAM	The "Ocean Online" information portal is intended to provide science-based information on socially relevant marine topics, pooling the expertise of German marine research. The portal's focus is on the sustainable use of coasts, seas, and the ocean. The portal is designed for individuals who wish to have a say and make decisions regarding the subjects of "Ocean and climate, ecosystem services, uses, and sustainability goals". In cooperation with the German Research Center for Artificial Intelligence (DFKI), an AI-supported semantic search function is being developed to enable users to quickly and efficiently find information that is comprehensible and needs-based.	01.07.2022 - 31.12.2030	CHALLENGE 9: Capacity Development CHALLENGE 10: Behaviour Change	Ute Wilhelmsen
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

Interactive World Ocean	Project	The German Marine Research Alliance (DAM	The Interactive World Ocean is a touchscreen-based interactive map of the ocean that invites visitors to “dive in” and explore the ocean from a range of perspectives. The key focus is on generating curiosity and interest in crucial ocean issues through fascinating visuals and emotional engagement. Interaction points using videos, photo galleries and scientific data allow visitors to dive into very different ocean regions – from the river and coastal systems to the open ocean and the deep sea, from the tropics to the polar regions. The presentation as an interactive world map links regional focal points with a global perspective while a range of thematic overviews on topics including Biodiversity and Climate Change demonstrate the connectivity of key ocean issues across diverse ecosystems.	01.07.2022 - 31.12.2030	CHALLENGE 10: Behaviour Change	Ute Wilhelmsen
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>SPACEWHALE for designating Marine Protected Areas</p>	<p>Project</p>	<p>BioConsult SH GmbH & Co. KG</p>	<p>BioConsult SH's new service SPACEWHALE counts whales and other wildlife species from space using satellite imagery. These images are screened and evaluated in a semi-automatic process combining state-of-the-art artificial intelligence and quality assurance by marine mammal experts. SPACEWHALE can answer key questions about how many whales of which species inhabit a sea area of interest and when they occur. We can study previously completely unexplored areas and help accelerating the designation of Marine Protected Areas, provide environmental impact assessments for offshore wind farm operators and offer an efficient tool for mandatory baseline monitoring of whale populations. Within this Decade Action, we are conducting a study together with WDC to map the distribution and abundance of whales over an area of 4,000 km² in the Indian Ocean. These data will, for the first time, be central to evidence presented in support of the designation of Important Marine Mammal Areas.</p>	<p>01.06.2022-31.12.2030</p>	<p>Challenge 7: Ensure a sustainable ocean observing system across all ocean basins that delivers accessible, timely, and actionable data and information to all users.</p>	<p>Julika Voss</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Thalassophile Project: Accessible Ocean Literacy</p>	<p>Project</p>	<p>Interchange Non-Profit gUG</p>	<p>The Thalassophile Project is an EU-funded initiative dedicated to advancing universal accessibility in marine science and ocean literacy, particularly for d/Deaf and visually impaired communities. By integrating marine research, education, and accessibility expertise, the project forms the Thalassophile Project Partnership. This multidisciplinary approach enhances global awareness of marine sustainability in alignment with the Sustainable Development Goals. The project addresses a critical gap: the lack of accessible ocean science information and educational resources for individuals with disabilities. Through its pilot activities, the Thalassophile Project demonstrates how to bridge this gap, providing equitable access to high-quality ocean literacy resources. By raising awareness within adult education institutions, museums, and ocean organisations, the project aims to inspire and empower communities to engage more fully in marine conservation efforts.</p>	<p>13.07.2021-31.12.2030</p>	<p>Challenge 9: Skills, knowledge, technology and participation for all, Challenge 10: Restore society's relationship with the ocean</p>	<p>Rada Pandeva</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>GAME (Global Approach by Modular Experiments)</p>	<p>Project</p>	<p>GEOMAR Helmholtz Centre for Ocean Research Kiel</p>	<p>GAME (Global Approach by Modular Experiments) is an international research and training programme in marine ecology based at the GEOMAR Helmholtz Centre for Ocean Research Kiel. GAME integrates practice-oriented education for ECOPs with global research on human-induced changes in marine ecosystems. Master's students conduct identical experiments simultaneously in binational pairs, under the guidance of scientists from renowned partner institutes worldwide. This approach provides robust results and helps to discern ecological rules despite the omnipresent site/system-specific noise. At the start of the project, all participants meet at GEOMAR to prepare the experiments and later return to analyze and compare results. During this period, students gain essential scientific skills under the guidance of GEOMAR scientists. This combination of innovative research and hands-on training makes GAME a standout example of effective research-based education for young scientists.</p>	<p>01.01.2002- 131.02.2030</p>	<p>Challenge 1: Understand and beat marine pollution, Challenge 2: Protect and restore ecosystems and biodiversity, Challenge 3: Sustainably nourish the global population</p>	<p>Mark Lenz</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

EPOS Thematic Core Services TSUNAMI	Project	GFZ German Research Centre for Geosciences	<p>In February 2024, 18 European institutions from 11 countries signed a Consortium Agreement to establish Thematic Core Services TSUNAMI (https://tsunamidata.org and https://www.epos-eu.org/tcs/tsunami) under the auspices of EPOS-ERIC (European Plate Observing System, https://epos-eu.org). The mission of TCS-TSUNAMI is to promote tsunami research and its practical applications by providing open access to high-quality and FAIR data, services, and scientific products for a broad range of stakeholders, including researchers, disaster risk management and early warning practitioners, private sector, etc. The products and services (currently over 40) are defined in four categories: Pillar 1 – Support to Tsunami Service Providers; Pillar 2 – Tsunami-related datasets and observations; Pillar 3 – Numerical tools and workflows for tsunami simulations; Pillar 4 – Hazard and risk products. The prime geographical scope is the region of North-East Atlantic, Mediterranean and connected Seas.</p>	15.02.2024-14.02.2030	<p>Challenge 6: Increase community resilience to ocean and coastal risks, Challenge 7: Sustainably expand the Global Ocean Observing System, Challenge 9: Skills, knowledge, technology and participation for all</p>	Andrey Babeyko
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

Sustaining AGITHAR towards a Global Tsunami Model	Project	Universität Hamburg, Dept. of Mathematics , Hamburg, Germany	The COST Action AGITHAR (running from 2019 through 2023) developed community standards and best practices for probabilistic tsunami hazard and risk assessment, necessary for preparedness, mitigation, and planning for tsunami disaster risk reduction. These practices will form the basis for the Global Tsunami Model (GTM) network of experts, organized in an association with a sustained business model, giving advice to public entities and decision makers, insurance and reinsurance industry, port authorities, and other diverse stakeholders.	01.11.2023-31.10.2024	Challenge 6: Increase community resilience to ocean and coastal risks, Challenge 8: Create a digital representation of the ocean, Challenge 9: Skills, knowledge, technology and participation for all	Jörn Behrens
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<p>Global Coastal Bathymetry Observation</p>	<p>Project</p>	<p>EOMAP</p>	<p>The coastal bathymetry is of crucial importance for multiple reasons. It's the zone of wave build-up, intensively used by human activities, and of high importance for life below the water. Mapping or even monitoring this zone by physical survey is complex and, in many parts of the world, simply not possible or affordable. To overcome this, we leverage the latest Earth Observation technologies. Using satellite data, together with physical models that analyze the tidal levels, the intensity and color of the shallow waters and the movement of waves, enables us to map shallow waters from the shoreline down to depths of 10 to 30 meters. Because satellites are recording continuously, this offers the opportunity to monitor these water depths as well. Finally, a scalable cloud processing architecture and web app to make this data available is the other solution we aim for.</p>	<p>01.12.2023 -31.12.2030</p>	<p>Challenge 7: Sustainably expand the Global Ocean Observing System, Challenge 8: Create a digital representation of the ocean, Challenge 9: Skills, knowledge, technology and participation for all</p>	<p>Knut Hartmann</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>IndicatorS Of changing Lightscapes in Underwater Marine Ecosystems (ISOLUME)</p>	<p>Project</p>	<p>Leibniz Institute for Baltic Sea Research Warnemunde (IOW)</p>	<p>ISOLUME will assess how marine lightscapes have changed across European sea basins over decadal to centennial timescales, and determine drivers, sources and impacts of these changes at both large and small scales. Our approach combines historical trend analyses of in situ and remotely sensed marine optics with statistical and mechanistic modelling. It covers both large, European sea basin scales and focused smaller scale regional case studies addressing different aspects of drivers and impacts of changing marine lightscapes. The investigation includes marine, estuarine and freshwater systems, land-ocean connectivity and temperature and salinity gradients. The project uniquely investigates four dimensions of marine lightscapes: intensity, location, timing, and spectra, with a focus on changes in the recent 25 years and projections for 2050. The involvement of external partners from further European countries, industry, stakeholders, and society is facilitated through a Science Advisory and Stakeholder Panel supported by a scoping activity and a call for expression of interest. The scientific evidence-based knowledge developed in ISOLUME will be used to advance effective monitoring and management strategies and establish policy frameworks to mitigate changing marine lightscapes.</p>	<p>01.04.2024-31.03.2028</p>	<p>Challenge 1: Understand and beat marine pollution, Challenge 2: Protect and restore ecosystems and biodiversity, Challenge 7: Sustainably expand the Global Ocean Observing System</p>	<p>Oliver Zielinski</p>
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<p>Impacts of artificial light at night on pelagic ecosystems in European seas (ALANIS)</p>	<p>Project</p>	<p>Helmholtz-Zentrum Hereon, Institute for Carbon Cycles</p>	<p>In aquatic environments natural light not only determines the rate of photosynthesis as primordial energy source but also critically influences trophic interactions throughout the entire food web. Light modulates visual predation by many predators as well as predation avoidance strategies by the prey and thus structures the vertical organization of aquatic ecosystems. The classical diel vertical migration of zooplankton to avoid predation during daytime and facilitate their own predation on surface phytoplankton is controlled by ambient light and is influenced especially by light intensities at night. Alterations of light, such as a general reduction of underwater light intensity due to coastal darkening and additional light at night from artificial light sources (ALAN) have the potential to strongly effect zooplankton diel migration patterns with consequences to whole marine ecosystems. In our joint project ALANIS, we will investigate the proliferation of ALAN from coastal activities and shipping and its impact on organismic behaviour such as vertical migration and on key ecosystem functions, while also considering counteracting effects of coastal darkening. We will apply a cross-basin state-of-the-art research pipeline approach, linking spectrally resolved light measurements, single species lab and in situ mesocosm studies, with community-wide field experiments and ecosystem modelling. Experimental and observational study sites will cover a high latitude region, including highly turbid coastal waters, and very clear waters of the Mediterranean. The expected results will provide the necessary fundamental physical characterization of underwater ALAN at different sites and of different types (coastal vs. from ships) and will deliver a comprehensive assessment of zooplankton photo-responsiveness and -behavioural thresholds. Remote sensing data of ocean brightness at night and long-term observations of ocean colour will be used to establish a high-resolution atlas of ALAN for European waters. This ALAN risk map together with the biological and physical knowledge leveraged at the study sites will be integrated into a mechanistic modelling approach for producing a sensitivity map of potential impacts of ALAN and coastal darkening on key ecosystem functions such as export flux. These maps and related project outcomes will be made accessible by a Web-GIS. Collaborative communication, dissemination, and outreach of ALANIS results will efficiently inform decisions and actions of a diverse group of stakeholders.</p>	<p>01.04.2024-31.03.2028</p>	<p>Challenge 1: Understand and beat marine pollution, Challenge 2: Protect and restore ecosystems and biodiversity, Challenge 10: Restore society's relationship with the ocean</p>	<p>Rüdiger Röttgers</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

FOODIMAR	Project	Submariner Network For Blue Growth EEIG	FOODIMAR is a three-year Sustainable Blue Economy Partnership project that aims to develop new industry-relevant solutions for valorising key side-streams from fisheries and aquaculture in climate-friendly, sustainable, high-quality, food applications. FOODIMAR pushes the boundaries of current practices through recovering nutrients, reducing environmental impact (climate-friendly extraction processes), species diversification (jellyfish, whitefish, sea bream), and adding value to fish side-streams (production, processing), thereby making existing food systems more diverse, profitable and resource efficient.	5.01.2024-3 0.04.2027	Challenge 3: Sustainably nourish the global population, Challenge 4: Develop a sustainable, resilient and equitable ocean economy	Freya Robinson
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>Call for Proposals of the MeerWissen Initiative for African-German marine research partnerships</p>	<p>Contribution</p>	<p>German Federal Ministry for Economic Cooperation and Development (BMZ)</p>	<p>This contribution is an open call to support partnership projects through the MeerWissen Initiative that contribute to strengthening the knowledge base for marine and coastal Nature-based Solutions (NbS) in Africa. This call explicitly supports a two-phased approach by funding a co-design phase prior to implementation of the joint two-year research project. All projects within the MeerWissen Initiative are contributing to a transformation in science by strengthening capacities in marine research, stimulating dialogue and knowledge transfer from science to policy uptake, and by fostering digital solutions and innovation. This call for proposals will select projects that demonstrate a shared belief in the power of close collaboration of marine research with decision makers at policy and management level to provide tailored, up-to-date, and accurate science-based information to effectively protect and manage marine resources – i.e. the science we need, for the ocean we want.</p>	<p>10.08.2021-02.28.2025</p>	<p>Alle 10 Challenges</p>	<p>Barbara Lang; Alexandra van Hoek</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>RV Polarstern and Heincke with Ocean Decade Logo</p>	<p>Contribution</p>	<p>Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research</p>	<p>Our research vessels are always in service for the investigation of climate topics mainly in the Arctic and the Antarctic regions. A well-known Expedition of the Polarstern was the MOSAiC Expedition, the largest polar expedition in history – the ship spent a year drifting through the Arctic Ocean. Our smaller research vessels like the ‘Heincke’ are on expeditions within the northern part of the earth, mainly in the North or Baltic Sea. Within many research projects we contribute to the challenges of the Ocean Decade. Many Scientists of our institute are involved and with our research vessels we also provide important research infrastructure in many regions of this world – even for international scientists. We are an official Network Partner of the Ocean Decade in Germany.</p>	<p>05.01.202 3-12.01.20 30</p>	<p>CHALLENGE 2: Protect and restore ecosystems and biodiversity; CHALLENGE 4: Develop a sustainable and equitable ocean economy; CHALLENGE 5: Unlock ocean-based solutions to climate change</p>	<p>Antje Boetius</p>
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

Preventing ocean plastic in rivers	Contribution	Plastic Fischer	<p>Plastic Fischer tackles ocean plastic pollution already in rivers and collects, sorts, and manages the non-organic material in order to protect marine biodiversity. The “3L Initiative” uses locally-built, low-tech and low-cost solutions to efficiently stop River Plastic and creates jobs for the local communities to carry out the reliable end-to-end services that ensure a safe processing of the collected plastic. The used technology can be built from locally available material anywhere in the world and is easy to manufacture and maintain. Besides the waste collection, Plastic Fischer organizes awareness campaigns together with schools and volunteers to create sensitivity for the consequences of plastic pollution and the benefits of proper waste management. The social enterprise has ambitions to scale across India and Indonesia, create hundreds of jobs for underserved communities and protect the oceans from thousands of tons of plastic.</p>	04.01.2021-31.12.2030	CHALLENGE 1: Understand and beat marine pollution	Karsten Hirsch
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2021 Vereinte Nationen Dekade
2030 der Meeresforschung
für nachhaltige Entwicklung

<p>ArtWaves: Fusion of Marine Biodiversity and Art</p>	<p>Contribution</p>	<p>Helmholtz Institute for Functional Marine Biodiversity at the University of Oldenburg (HIFMB)</p>	<p>The Helmholtz Institute for Functional Marine Biodiversity (HIFMB) and the Institute for Advanced Studies (HWK), are jointly offering annual artist-in-residence scholarships. The art projects are intended to address aspects of marine biodiversity change and to promote public understanding and the transfer of knowledge in a changing world through art. Main objectives are to develop new formats for the transfer of science into social and/or political debates and to build new networks to promote the visibility of marine biodiversity research. In the context of the Ocean Decade Challenges, we ask the artists to address in particular the Challenge 2: Protect and restore ecosystems and biodiversity. HIFMB aims for the most effective interaction and create conditions for an inspiring and creative collegial dialogue between artists and researchers. We ask the artists to involve young scientists and to show them ideas and ways of integrating new ways of thinking and working into their work.</p>	<p>1.1.2024-31.12.2030</p>	<p>CHALLENGE 2: Protect and Restore Ecosystems CHALLENGE 3: Sustainable Blue Food CHALLENGE 5: Ocean-Climate Nexus</p>	<p>Ruth Krause</p>
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