

Annexes

An overview of the national and international networks in which VLIZ participates, projects for which VLIZ receives external funding, scientific equipment and infrastructure provided by VLIZ, students that were guided by VLIZ, events (co-)organised and publications published by VLIZ.

Networks

National networks and advisory & consultative committees

Some examples of national networks and (temporary or project related) advisory and consultative committees in which VLIZ participates:

- Advisory Committee PIO Paardenmarkt
- Advisory Committee VNR Knokke-Heist and Westkust ([ANB](#))
- Belgian division of “Scientific Committee on Oceanic Research” (SCOR)
- Belgian National Risk Assessment (BNRA 2023-2026)
- Belgian Secretariat of the UN Decade of Ocean Science for Sustainable Development
- Project Coastal Vision ([Coastal Vision](#)): member of the Policy Committee and reporter of the Technical-Scientific Committee (TWC)
- Covenant for Sustainable Fisheries – Working Group Coast – Sub Working Group Education and Training
- The Blue Cluster ([Blue Cluster](#)): acting member in the Board of Directors, member of the Steering Group, Chairman of the Scientific Advisory Board (WAR)
- Expert Group Blue Energy (Provincial Development Agency)
- Federal Council for Sustainable Development Belgium ([FRDO-FCSS](#))
- Flanders Environmental Library Network ([FELNET](#))
- Port of Oostende ([Port of Oostende](#)): Board of Directors
- Industrial Advisory Board KULeuven ([KULeuven](#))
- IkHebEenVraag.be consortium ([KBIN](#))
- KVAB science communication awards ([KVAB](#)) and ad hoc working groups
- Programme of measures Marine Strategy Framework - Department for the Marine Environment
- MCM-lab (mine counter measures)
- Monumentenwacht ([Monumentenwacht](#))
- National and Flemish Working Group on Marine Litter
- NAVIGO Scientific Advisory Group ([NAVIGO](#))
- Network of the Liaison Agency Flanders – Europe ([VLEVA](#))
- North Sea and Ocean Steering Committee (MNZ)
- Flanders Knowledge Centre for Citizen Science ([SCIVIL](#)) Steering Committee
- Surveillance, early warning and rapid response – Invasive Alien Species Steering Committee
- Steering Group PIO: Collecting and removing floating litters in the marinas along the coast
- Flemish Bioeconomy Policy Plan Steering Group
- Strategisc Steering Committee of the Flemish Aquaculture Platform ([SSAQ](#))
- Think Tank North Sea ([TTNS](#))
- Flemish Europe Platform ([VEP](#)) including Working Groups on Horizon Europe (WG1), Pan-European initiatives and collaborations (WG2), Open Science (WG4), Digitalisation (WG5)
- Association of Geography Teachers ([VLA](#))
- Association of Biology Educators ([VOB](#))
- Flemish FWO-NCP: European Liaison Officers network ([ELO](#))
- Flemish Supercomputer Centre - User Committee ([VSC](#))
- Flemish Unesco Commission ([VUC](#))
- Flemish Association for Libraries, Archives and Documentation Centres ([VVBAD](#))

- VLIR Learning Network
- International strategy Working Group (Provincial Development Agency)
- Coastal Working Group
- Science Communication Network FWO
- ZEEBteam Province West Flanders

International networks and advisory and consultative committees

Some examples of international networks and (temporary or project related) advisory and consultative committees in which VLIZ participates:

- Catalogue of Life Global Team, Editorial Board, Board of Directors ([Catalogue of Life](#))
- Coastal Wiki Editorial Board ([Coastal Wiki](#))
- Editorial board of Global Ocean Science Report van IOC-UNESCO ([GOSR](#))
- European Association of Aquatic Sciences Libraries and Information Centres ([EURASLIC](#))
- European Census of Marine Life ([EuroCoML](#))
- European Centre for Information on Marine Science and Technology ([EurOcean](#))
- European Citizen Science Association ([ECSA](#))
- European Geosciences Union: Ocean Science division officer ([EGU](#))
- European Marine Biodiversity Observatory System (EMBOS)
- European Marine Board (representative of the Research Foundation – Flanders) ([EMB](#))
- European Marine Board Communications Panel ([EMBCP](#))
- European Marine Science Educators Association ([EMSEA](#))
- EU MSP network, Ocean Governance network
- European network of Marine Biodiversity and Ecosystem Functioning ([MARBEF+](#))
- European Network of Marine Research Institutes and Stations ([MARS](#))
- European Parliament InterGroup on Climate Change and Biodiversity (CCBD)
- European Parliament InterGroup on Seas and Ocean (SEARICA)
- European Regions Research and Innovation Network (ERRIN): active member in WG Blue Growth and WG BioEconomy
- European Research Vessel Organisation ([ERVO](#))
- Executive Committee of the European Register of Marine Species ([ERMS](#))
- Executive Council and General Assembly of the Intergovernmental Oceanographic Commission ([IOC](#)) of UNESCO
- Global Carbon Budget: member of the Ocean core team
- Global Ocean Science Report-II: co-author, reviewer and member of the editorial board
- Global Sea Level Observing System Network ([GLOSS](#))
- Group of European Data Experts in Research Data Alliance ([GEDE-RDA](#))
- ICES Data and Information Group ([ICES - DIG](#))
- ICES Working Group on Biodiversity Science ([ICES - WGBIODIV](#))
- ICES working group on Marine Litter & Microplastics (WGML)
- ICES Working Group on Recreational Fisheries Surveys ([ICES – WGRFS](#))
- ICES Working Group on the History of Fish and Fisheries ([ICES - WGHIST](#))
- INSPIRE Thematic Working Group on Biogeographical Regions, Habitats and Biotopes and Species Distributions (INSPIRE)
- Integrated Carbon Observation System Marine Station Assembly ([ICOS](#))
- Integrated Carbon Observation System Oceanographic Thematic Centre meeting ([ICOS](#))
- International Coastal Atlas Network ([ICAN](#))
- International Research Ship Operators ([IRSO](#))
- IOC Expert Group on Ocean Capacity Development: and chair of Task Team on Clearinghouse Mechanism for the Transfer of Marine Knowledge
- IOC Group of Experts on Ocean Literacy
- IOC Ocean Decade Strategic Communications Group
- IODE Group of Experts on Biological and Chemical Data Management and Exchange Practices ([IODE - GE-BICH](#))
- IODE Network of National Oceanographic Data Centres ([IODE NODC](#))
- Joint IAMSLIC/IODE Group of Experts on Marine Information Management ([IAMSLIC/ IODE GE-MIM](#))

- Joint Programming Initiative Healthy and Productive Seas and Oceans ([JPI Oceans](#))
- JPI Oceans reference expert group on marine spatial planning ([JPI Oceans](#)) Working Groups: MSP/ICZM
- LifeWatch National Centers network ([LifeWatch - LiNC](#))
- Marine Knowledge Expert Group within the European Marine Observation and Data Network ([EMODnet](#))
- National Marine Educators Association US ([NMEA](#))
- News & Information Group of the Partnership for Observation of the Global Oceans ([POGO - News & Information Group](#))
- Ocean Biogeographic Information System ([OBIS](#))
- Ocean Communicators United (OCU)
- Ocean Economy Working Group events and network (OECD)
- Ocean Tracking Network ([OTN](#))
- Oceans Past Initiative ([OPI](#))
- Partnership for Observation of the Global Oceans ([POGO](#))
- Sea Data Network ([SeaDataNet II](#))
- SeaWeb Europe - Jury concours Olivier Roelinger ([SeaWeb](#))
- Species 2000 ([Species 2000](#))
- Steering Committee of the European Marine Biological Resource Centre ([EMBRC](#))
- Steering Committee of the Flemish UNESCO Trust Fund ([FUST](#))
- Steering Committee of the World Register of Marine Species ([WoRMS](#))
- UN Decade of Ocean Science for Sustainable Development: global planning meeting, implementation plan, science plan
- Vlaams-Nederlandse Scheldecommissie m.e.r. ([VNSC](#))
- Working Group on Invasive Alien Species ([WGIAS](#))
- World Data System of the International Council for Science ([ICSU - WDS](#))

In addition, the VLIZ also participates in guidance groups and end-user committees of several research projects.

Projects – external funding

In 2022, the VLIZ received external funding for coordination, communication and/or data management in 60 projects. Most of these were carried out in collaboration with research groups.

EU

BASTA - Boost Applied Munition Detection Through Smart Data Integration And Ai Workflows

Duration: 01.12.2019 – 30.11.2022

<https://www.basta-munition.eu/>

The focus of this proposal is on cost-efficient detection and identification of sea-dumped munition (whether buried below the seabed or not), both for regional scale reconnaissance (typical size of several km²) and for local scale surveys of known dump sites (verification of munition). The project is a collaboration between 2 research institutes and 2 industrial partners with a view to maximising the value of the research results.

BIOCEAN5D - Marine Biodiversity Assessment And Prediction Across Spatial, Temporal And Human Scales

Duration: 01.12.2022 – 30.11.2026

<https://www.biocean5d.org/>

BIOcean5D unites major European centers in molecular/cell biology (EMBL), marine biology (EMBRC), and sequencing (Genoscope), together with 26 partners from 11 countries, to build a unique suite of technologies, protocols, and models allowing holistic re-exploration of marine biodiversity, from viruses to mammals, from genomes to holobionts, across multiple spatial and temporal scales stretching from pre-industrial to today.

BLUE-CLOUD - Piloting Innovative Services For Marine Research & The Blue Economy

Duration: 01.10.2019 – 30.09.2022

The project implements a practical approach to address the potential of cloud based open science to develop a set of services that demonstrate the potential of the Pilot Blue Cloud as a thematic EOSC cloud to support ocean research through a set of five pilot Blue-Cloud demonstrators.

BLUE MISSION BANOS

Duration: 01.12.2022 – 30.11.2025

<https://bluemissionbanos.eu/>

This project is part of the set of calls, procurements and grants which are launched in the framework of the Mission Ocean. The current project is the regional CSA (first conceived as a procurement) to support the IA Lighthouse actions.

COASTAL - Collaborative Land Sea Integration Platform

Duration: 01.05.2018 – 30.04.2022

<https://h2020-coastal.eu/>

COASTAL is a multi-actor project involving stakeholders in the development of business roadmaps and policy solutions for enhancing coastal and rural collaboration and synergies by combining local knowledge and scientific expertise in a co-creation process.

COST-ETN - The European Aquatic Animal Tracking Network

Duration: 22.03.2019 – 21.03.2021

This COST Action aims to integrate all independent regional telemetry initiatives into a pan-European biotelemetry network, embedded in the international context of existing initiatives.

EDITO-INFRA - EU Public Infrastructure For The European Digital Twin Ocean

Duration: 01.10.2022 – 01.10.2024

<https://digitaltwinocan.mercator-ocean.eu/>

The main objective of EDITO-Infra, the "EU Public Infrastructure for the European Digital Twin", is to build the backbone of the EU Public Infrastructure for the European Digital Ocean Twin (RDF) by upgrading, combining and integrating key service components of the existing EU ocean observation, monitoring and data programmes Copernicus Marine Service and the European Marine Observation and Data Network (EMODnet) into a single digital framework.

EMODNET – European Marine Observation And Data Network

Duration: continually since 2014

www.emodnet.eu

The European Marine Observation and Data Network (EMODnet) develops a data infrastructure to make marine data available so as to support scientists, policy makers and other end users within the scope of the new European maritime policy. VLIZ is responsible for the biological pilot project (www.emodnet-biology.eu). It will use the existing European atlas with distribution data of marine species (EurOBIS) as a basis and complete it. VLIZ is also involved in the chemical project of EMODnet and the Data Ingestion initiative. In addition, VLIZ is expanding the EMODnet Central Portal (www.emodnet.eu), which is intended to provide access to the data products and data collected within the EMODnet thematic networks. The EMODnet Secretariat is located at the InnovOcean site in Ostend.

EMOD-PACE - EMODNET CHINA - EMODNET Partnership For China And Europe

Duration: 19.02.2020 - 30.06.2022

Strengthening international ocean data through the EU's ocean diplomacy with China.

ENVRI FAIR - Environmental Research Infrastructures Building Fair Services Accessible For Society, Innovation And Research

Duration: 01.01.2019 - 31.12.2022

<http://envri.eu/envri-fair/>

ENVRI-FAIR is the connection of the Cluster of Environmental Research Infrastructures (ENVRI) to the European Open Science Cloud (EOSC). Participating research infrastructures (RI) cover the subdomains Atmosphere, Marine, Solid Earth and Biodiversity/Ecosystems. The overarching goal is that at the end of the proposed project, all participating RIs have built a set of FAIR data services which enhances the efficiency and productivity of researchers, supports innovation and enables data- and knowledge-based decisions.

EOSC-FUTURE

Duration: 01.04.2021 – 30.09.2023

<https://eoscfuture.eu/>

EOSC Future will build on the existing baseline for the European Open Science Cloud to deliver a platform with a durable set of user-friendly components that are designed for the long haul.

EOSC-LIFE - Providing an open collaborative space for digital biology in Europe

Duration: 01.03.2019 – 28.02.2023

EOSC-Life brings together the 13 Biological and Medical ESFRI research infrastructures (BMS RIs) to create an open collaborative space for digital biology. The project aims to respond to the challenge of analysing and reusing the prodigious amounts of data produced by life-science. By publishing data and tools in a Europe-wide cloud, EOSC-Life aims to bring the capabilities of big science projects to the wider research community.

EROVMUS - Enhanced Remote Operated Vehicle interface for munition solutions

Duration: 01.07.2022 – 30.06.2025

The EROVMUS project aims to streamline ROV operations in munitions-affected areas by providing a better interface for ROV pilots. Tests are planned in the North Sea, Black Sea and Baltic Sea.

Eurofleets+

Duration: 01.02.2019 – 31.01.2023

Coordinated by IM (Ireland), the Eurofleets+ project brings together over 20 scientific institutions to take the first steps towards a coordinated European research fleet and associated infrastructure. Through the Eurofleets+ call we hope to get funding for a two week campaign on board of the RV Sanna in Nuuk, Greenland. We would like to use the VPR in two fjord systems (Godhabsfjord and Ameralik) and the shelf connecting these areas, to research the zooplankton distribution. This project would fit within the PhD of Anouk Ollevier (Understanding and optimizing zooplankton imaging observations).

Fair-EASE - FAIR EArth Sciences & Environment services

Duration: 20.09.2022 – 30.06.2023

<https://fairease.eu/>

The overall objective of FAIR-EASE is to customize and operate distributed and integrated services for observation and modelling of the Earth system, environment and biodiversity by improving their different components implemented in close cooperation with user-communities, the European Open Science Cloud (EOSC) and research infrastructures in their design and sustainable availability.

FISH-INTEL - Fisheries Innovation for sustainable SHared INTERchannEL resources

Duration: 01.02.2021 – 30.06.2023

The project's main objective is the provision of evidence to statutory and fisheries enforcement bodies on the identification of essential fish habitats and successful implementation of ecosystem based fisheries management.

GEANS - Genetic tool for Ecosystem health Assessment in the North Sea region

Duration: 01.03.2019 – 28.02.2022

GEANS is aimed at harmonising and consolidating existing DNA-based methods to ensure their application for assessing ecosystem health in the North Sea environment. A DNA sequence reference library will be compiled, current methods

will be optimised and standardised, genetic indicators will be developed and a roadmap for management implementation will be provided.

Geo-INQUIRE - Geosphere INfrastructures for QQuestions into Integrated REsearch

Duration: 01.10.2022 – 01.10.2026

Real time data access will be enhanced for broader scientific impact. Access to bulk data for researchers will be improved through integration into EPOS, the inclusion of DART data, additional data processing (QC and de-tiding) and by filling geographical gaps through cooperation with new data providers. The access to bulk data & link with EMODnet data will be set up so to allow data transfer to HPC environments for scientific models (...) and in the framework of the EPOS candidate Tsunami TCS.

GreenFeedBack

Duration: 01.07.2022 – 30.06.2026

<https://eu-greenfeedback.com/>

The overall objective of GreenFeedBack is to enhance our understanding of key processes of the terrestrial biosphere - freshwater - ocean continuum in surface-atmosphere GHG exchange and the impacts from human pressures. A nr of RIs (e.g, GIOS, ICOS, ACTRIS, PEEX) located in high latitude ecosystems will be used. Primary focus is on enhancing our understanding of the GHG exchange processes, and connections with Earth System Models (ESM). allowing for more certain climate change projections.

IG-Waves - Influence of infragravity waves during storms on the hydro- and morphodynamics along hybrid soft-hard coastal defence structures with a shallow foreshore

Duration: 01.01.2022 – 01.01.2025

Urban areas in low-lying coastal zones are protected from flooding by a hybrid soft-hard coastal defence structures. Ig wave-related processes in these structures have a significant but insufficiently researched effect on the beach erosion and wave overtopping over the dike. The proposed research aims at gaining more insight into the influence of those ig waves on the wave propagation over the beach and dike (hydrodynamics), and how that affects erosion of the beach (morphodynamics).

iMagine

Duration: 01.09.2022 – 30.08.2025

<https://www.imagine-ai.eu/>

This project will deploy, operate, validate, and promote a dedicated iMagine AI framework and platform, connected to EOOSC and AI4EU, giving researchers in aquatic sciences open access to a diverse portfolio of AI based image analysis services and image repositories from multiple RIs, working on and of relevance to the overarching theme of 'Healthy oceans, seas, coastal and inland waters.

JERICO-S3 - Joint European Research Infrastructure of Coastal Observatories: Science, Service, Sustainability

Duration: 01.02.2020 – 31.01.2024

<https://www.jerico-ri.eu/projects/jerico-s3/>

JERICO-S3 will provide a state-of-the-art, fit-for-purpose and visionary observational RI, expertise and highquality data on European coastal and shelf seas, supporting world-class research, high-impact innovation and a window of European excellence worldwide.

MARBEFES - MARine Biodiversity and Ecosystem Functioning leading to Ecosystem Services

Duration: 01.10.2022 – 30.09.2025

<http://marbefes.eu/projects/Marbefes/>

The overall aim of MARBEFES is to determine the links between the biodiversity and functioning of coastal and marine ecosystems and the resulting ecosystem services and societal goods and benefits.

Marco-Bolo

Duration: 01.12.2022 – 30.11.2026

<https://cordis.europa.eu/project/id/101082021>

MARCO-BOLO aims to structure and strengthen European coastal and marine biodiversity observation capabilities, linking them to global efforts to understand and restore ocean health, hence ensuring that outputs respond to explicit stakeholder needs from policy, planning and industry. MBO will establish and engage with a Community of Practice to determine enduser needs with the aim of optimising marine data flows, knowledge uptake, and improving governance based on biodiversity observations.

Marine Regions - Towards a standard for georeferenced marine names

Duration: continually since 2011

www.marineregions.org

Marine Regions is a standardised geographic data system which makes geographic information on marine place names and maps freely available. It integrates geographic information on seas, oceans and undersea features, and indicates the boundaries of various marine areas throughout the world. 'Marine Regions' integrates the data and information from the VLIMAR Gazetteer (place name register) and the MARBOUND database (EEZ boundaries). Both global data systems have been developed by the Flanders Marine Institute and have demonstrated their added value for many users over the past few years. The combination of both databases is intended to benefit the different target groups.

Mission Atlantic

Duration: 01.09.2020 – 31.08.2025

www.missionatlantic.eu

The "mission" of Mission Atlantic is to investigate how multiple pressures within and across important sub-areas affect the resilience of the Atlantic Ocean to future climate and societal changes. The project will tackle this question by advancing knowledge on ecosystem processes as well as applying new observation technology and state-of-the-art predictive capacity to develop an operational regional and basin-scale Integrated Ecosystem Assessment (IEA).

MSP4BIO - Improved Science-Based Maritime Spatial Planning to Safeguard and Restore Biodiversity in a coherent European MPA network

Duration: 01.08.2022 – 31.06.2025

<https://msp4bio.eu>

The MSP4BIO project builds on existing approaches to improve the science-based implementation of MSP and MPA planning by providing a modular framework for characterising biodiversity characteristics, interactions between socio-economic and ecological issues, and modelling.

North Sea Wrecks - an opportunity for blue growth (NSW)

Duration: 01.11.2018 – 31.10.2022

<https://northsearegion.eu/nsw/about/>

The project will provide the tools required by planners, response organisations, economic actors and other stakeholders to assess the risks posed by shipwrecks and ammunition in the North Sea and propose risk mitigation solutions.

Plastic Pirates 2022 - Europeanization of Plastic Pirates - Belgium

Duration: 01.07.2022 – 31.12.2022

<https://www.plastic-pirates.eu/dt>

Plastic Pirates is a pan-European citizen science initiative about plastic pollution. Young people take samples in estuaries and in rivers and inventories the plastic pollution level. The main objectives of the initiative are to gain knowledge on the origin and pathways of plastic pollution, raise awareness and improve ocean literacy.

PREP4BLUE - Preparing the Research & Innovation Core for Mission Ocean, Seas & Waters

Duration: 01.03.2022 – 28.02.2025

PREP4BLUE aims to facilitate a successful first phase (2022-2025) of the Mission Ocean seas and Waters, by developing the co-creation and co-implementation of R&I modalities and preparing the ground for inspiring and engaging citizens and stakeholders. PREP4BLUE will deliver tools, guidelines, methodologies and recommendations tested through pilots, which will interlink, leverage and optimise activities among the projects funded under the Mission.

SBEP - Sustainable Blue Economy Partnership

Duration: 01.02.2021 – 01.12.2027

<https://bluepartnership.eu/>

The partnership will catalyse the transformation of Europe's ocean economy towards climate neutral status by 2050. By aligning national, regional and EU R&I priorities and bringing together science, industry, governance and society, it will deliver knowledge and solutions to make ocean business sustainable. Responding to national and EU policy goals (e.g. MSFD, Green Deal), the partnership will target a healthy ocean and a sustainable, productive ocean economy and the well-being of citizens.

SeaBioComp – Development and demonstrators of durable biobased composites for a marine environment

Duration: 01.05.2019 – 31.08.2022

SeaBioComp will develop demonstrators using innovative bio-based thermoplastic composite materials with the following characteristics: (1) mechanical properties that are at least equivalent to the ones of conventional oil-based composites, (2) tailored durability according to the specific application (2 to >20 years), (3) reduced CO2 emission (30%) and reduced ecotoxic impact (due to microplastics).

SEA(A)BASS - Dataverzameling van habitat specifieke biologische en socio-economische gegevens voor een geïnformeerd beheer van zeebaars.

Duration: 01.03.2020 – 31.12.2022

Data collection of habitat specific biological and socio-economic data for informed seabass management.

SOS-ZEROPOL2030 - Source to Seas - Zero Pollution 2030

Duration: 01.09.2022 - 31.08.2026

<https://soszeropol2030.eu/>

Source to Seas - Zero Pollution 2030 (SOS-ZEROPOL2030) overall aim is to develop a holistic zero pollution framework which can guide the process towards achieving zero pollution in European seas by 2030.

WECANET - A pan-European Network for Marine Renewable Energy

Duration: 12.09.2018 – 11.09.2022

www.wecanet.eu

This pan-European network focuses on an interdisciplinary approach to marine wave energy that will contribute to large-scale WEC Array deployment by addressing the current bottlenecks.

Vlaamse overheid, Waterwegen en Zeekanaal (W&Z)

OMES – Research on the environmental effects of the SIGMA plan

Phase III: 16.07.2008-15.10.2009

Phase IV: 01.10.2009-01.10.2010

Phase V: 01.02.2011-30.04.2012

Phase VI: 01.02.2012-30.04.2013

Phase VII: 01.02.2013-30.04.2014

Phase VIII: 01.02.2014 -30.04.2015

Phase IX: 01.02.2016-30.04.2017

Phase X: 01.02.2017-30.04.2018

Phase XI: 01.02.2018-30.04.2019

Phase XII: 01.02.2020-30.04.2021

Phase XIII: 01.02.2021-30.04.2022

www.omes-monitoring.be/en

The OMES consortium has implemented this multidisciplinary monitoring programme, which was commissioned by Waterwegen en Zeekanaal, since 1995. Various components of the ecosystem are sampled: water quality, carbon cycle, phytoplankton, zooplankton, microphytobenthos, primary productivity and sediment characteristics. VLIZ is responsible for the integrated OMES database and ensures its dissemination through the OMES website (www.vliz.be/projects/omes).

Flemish Government, Maritime Access division

ScheldeMonitor – Flemish-Dutch knowledge platform for research and monitoring of the Scheldt estuary

Duration current phase: 01.01.2021 – 31.12.2024; project started in 2010

www.scheldemonitor.org

ScheldeMonitor is a Flemish-Dutch knowledge and information system for research and monitoring of the Scheldt estuary. This portal provides an overview of publications, institutions, projects, datasets, etc. related to research and monitoring in the Scheldt estuary as well as access to measurements and data products such as maps, charts and indicators.

ANDROMEDA - Analysis techniques for quantifying nano-and microplastic particles and their degradation in the marine environment

Duration: 01.04.2020 – 31.03.2023

Within ANDROMEDA, in situ detection, efficient sampling and cost-effective laboratory methods will be developed and optimized to analyze microplastics. Approaches will be based on hyperspectral imaging, chemical markers and fluorometric detection techniques. Advanced analysis techniques making use of μ FTIR, Raman imaging and SEM-EDX (amongst others) will be applied to quantify and characterize micro and nanoplastics.

BG-PART - BioGeochemical PARTicle interactions and feedback loops on the Belgian Continental Shelf

Duration: 01.06.2021 – 01.06.2024

Interactions between biological and mineral particles may underlie phytoplankton and sediment dynamics in our North Sea. Phytoplankton produces sticky marine gels that influence flocculation, floc size and settling velocity of mineral particles. In turn, higher settling velocities decrease turbidity, changing the underwater light conditions and fostering photosynthesis. BG-PART aims to obtain an integrated understanding of biotic and abiotic interactions that drive particle dynamics in the BCS.

STURMAPS - Towards 3D SPM and turbidity mapping in the water column using multibeam sonar

Duration: 01.12.2021 – 31.05.2022

This project builds on the TIMBERS projects and aims to finish what was foreseen in the 2 years the project ran. Additional (statistical) analyses will be executed to better understand the relationship between multibeam water column data and in-situ SPM data. Additionally, a paper will be drafted regarding the potential of multibeam sonars to map SPM/turbidity in 3D.

TIMBERS - 3D Turbidity assessment through Integration of MultiBeam Echo-sounding and optical Remote Sensing

Duration: 01.04.2019 – 30.06.2022

The goal of this project is to produce 3D turbidity profiles for seawater by combining remote sensing with multi-beam echo-sounding (MBES). A method will be developed to deduce vertical turbidity profiles from measured MBES backscatter values and combine them with turbidity data from the top layer of the water column on the basis of satellite observations.

TURBEAMS - Towards 3D TURbidity by correlating multiBEAM sonar and in-situ Sensor data

Duration: 15.12.2021 – 15.03.2026

A 3D approach is recommended for turbidity/SPM monitoring, since the variability can be high. In TURBEAMS, we want to build on the TIMBERS results by coupling the acoustic instruments of the RV Belgica to the sampling-capacity. This will result in a number of correlation equations (depending on among other season and location) which will allow the transformation of multibeam backscatter values into characteristics of SPM and/or turbidity.

Phasing out of fishing lead

Duration: 08.04.2021 – 08.04.2022

The aim is to develop a draft cooperation agreement on the phasing out of lead casting weights in recreational angling between relevant government agencies and industry organisations and federations.

WALDO - Where are All the (proglacial) Lake seDiments in the NOrth Sea Basin?

Duration: 15.12.2021 – 15.03.2026

Proglacial lakes are believed to have existed in the southern North Sea. Evidence of these lakes is elusive. By using high-resolution geophysical data and cores, we will test the hypothesis that proglacial lakes were important features in the southern North Sea during the last three ice ages.

Province West Flanders

Blue Accelerator

Duration: since 2022 (before: ERDF Flanders project)

The Blue Accelerator project is aimed at creating so-called living labs where testing is possible under real marine conditions. The principal focus is on the development of an offshore test location (incl. platform) off the coast of Ostend.

Zeekrant

Duration: since June 2007

Annual publication of VLIZ in partnership with the province of West Flanders with all sorts of facts on the sea and beach. After 10 editions, an updated version of the Zeekrant was released in cooperation with the province of West Flanders.

FWO (formerly the Hercules Foundation)

DiSSCo Flanders - Towards a collection management infrastructure for Flanders

Duration: 01.01.2021 tot 31.12.2024

DiSSCo Flanders will address biological, anthropological and geological collections. The whole workflow from specimen sampling in the field to their digitization and online publication enabling re-use of the data and media will be addressed.

LifeWatch – Flemish contribution to LifeWatch.eu

Duration: continually since 01.04.2012

www.lifewatch.be

The Flemish contributions to the LifeWatch infrastructure are coordinated by the Research Institute for Nature and Forest (INBO) and, as far as the marine component is concerned, by the Flanders Marine Institute (VLIZ). Flanders contributes to the central LifeWatch infrastructure with a taxonomic backbone which is developed through various projects, including the World Register of Marine Species or WoRMS (www.marinespecies.org) and EurOBIS (www.eurobis.org). WoRMS aims to provide an authoritative and comprehensive list of names of marine organisms, including information on synonyms. EurOBIS is a distributed system which makes it possible to simultaneously search for biogeographic information on marine organisms in various data sets. EurOBIS has been developed within the MarBEF network and serves as the European node of OBIS. As part of LifeWatch, Marine Regions is a standardised geographic data system which makes geographic information on marine place names and maps freely available. It integrates geographic information on seas, oceans and undersea features, and indicates the boundaries of various marine areas throughout the world. Marine, freshwater and terrestrial observatories are developed regionally within LifeWatch, as are different biodiversity data systems, web services and models.

DISARM - Dumpsites of munition: Integrated Scientific Approach to Risk and Management

Duration: 01.01.2020 – 31.12.2023

www.disarm.be

The Paardenmarkt is one of the many munition dumpsites in our oceans. A few m below the seafloor, ca. 35.000 tons of WW1 chemical munition are buried. The present scientific knowledge is insufficient to make any reliable judgement on the state of the site. The DISARM project aims to address the knowledge gaps, but will go an important step further to develop an integrated scientific approach to support risk assessment and management of marine chemical munition dumpsites worldwide.

EMBR.be – European Marine Biological Resource Centre - Belgium

Duration: 01.01.2021 – 31.12.2024

www.embrc.eu

EMBRC will be a distributed infrastructure for research and training at leading marine research stations in Europe. It constitutes a virtual network of marine stations for the study of marine species, biodiversity and ecosystem functioning, developmental biology and evolution, biogeochemistry, global change, biomedical sciences and marine products. EMBRC will provide end users from SMEs, academia and industry with access to marine biodiversity, associated metadata and extractable products. Services include access to marine species (model species), biobanks, dedicated 'omics' platforms, structural biological facilities and imaging (microscopy, cytometry, etc.). The Flemish contribution is coordinated by the Marine Biology Laboratory (Ghent University) and VLIZ, with VLIZ making seagoing and land-based facilities available and providing technical support.

FOSB - Flemish Open Science Board

Duration: sinds 01.09.2020

The mandate of the FOSB is te develop policy on Open Science in Flanders. To assist in this task, both technical and substantive working groups were set up, making maximum use of the already existing expert working groups at stakeholders and the government. With the creation of this council, Flanders is preparing itself to connect to the European Open Science Cloud (EOSC), an ambitious cloud project that aims to offer European researchers an environment for "data storage, management, analysis and re-use across disciplines" and that will bring together existing and future data infrastructures, both horizontal and thematic.

ICOS – Integrated Carbon Observing System

Duration: 01.01.2012 – 31.01.2025

www.icos-infrastructure.eu

ICOS provides the long-term observations required to understand the present state and predict future behaviour of the global carbon cycle and greenhouse gas emissions. VLIZ performs the oceanographic measurements which Flanders will transfer to ICOS through the University of Antwerp. VLIZ performs measurements aboard RV Simon Stevin to this end. Within the scope of ICOS, VLIZ collaborates with NIOZ-Yerseke and the University of Liège (Alberto Borges).

Creating negative CO2 emissions via enhanced silicate weathering (ESW)

Duration: 01.02.2019 – 31.12.2022

This SBO project will tackle the problem of climate stabilisation by examining the feasibility of an innovative negative emission technology called 'Enhanced Silicate Weathering' (ESW) integrated into coastal zone management. The goal is to perform fundamental research into efficiency, mutual benefits and environmental impact of the technique in order

to examine if and how it can be developed into a sustainable and cost-effective approach to the evaluation of negative emissions.

Decision support framework for plastic clean-up technologies in rivers and estuaries: minimizing unintentional bycatch while maintaining efficient plastic removal under realistic environmental conditions

Duration: 01.11.2021 – 31.10.2025

The aim is to develop a mathematical model to quantify the bycatch of plastic removal technologies. This model will support water managers in their choice of a suitable technology to remove plastic and limit ecological collateral damage.

Testerep - Evolution of the Flemish seascape 5000 BP - present

Duration: 01.10.2021 – 31.09.2025

The project's aim is to extend our spatio-temporal understanding of Flanders' coastal landscape over the last 5000 years by studying the former Testerep peninsula at sea and on land. This will provide new detailed insights into the relative impact of natural changes (e.g. sealevel rise) versus anthropogenic interventions (e.g. constructing embankments) on the morphological dynamics of the coast.

UNESCO

GLOSS – Sea Level Station Monitoring Facility

Duration: continually since 2008

www.ioc-sealevelmonitoring.org

A worldwide service for real-time sea level monitoring by means of measuring stations in cooperation with GLOSS (Global Sea Level Observing System) and IOC (Intergovernmental Oceanographic Commission).

VLAIO (formerly IWT – Strategic Basic Research)

BAR (Brexit Adjustment Reserve) Coastal Fleet – Post-Brexit pelagic coastal fisheries

Duration: 02.10.2022 – 31.12.2023

New economic drivers and resilience for small-scale and sustainable niche fisheries, to compensate for the current loss of catches and funding in UK waters in the Southern North Sea (4C) and English Channel (7D) and access to (fishing) waters in the post-Brexit UK.

BAR (Brexit Adjustment Reserve) Marine Robotics – Post-Brexit collaboration on marine robotics

Duration: 01.09.2022 – 31.12.2023

The objective is to reinforce the post-Brexit position of VLIZ with regard to marine robotics and autonomous ocean observations. As such, VLIZ wants to enter as an equal partner in novel collaborations with specialised centres in the UK and reinforce the potential with regard to marine robotics for research and innovation purposes and the Blue Economy in Flanders.

Blue Balance - PuBlic and Economic VALue of ChANGing Coastal ArEas by stimulating “Green” Blue Citizenship and Sustainable Blue Tourism

Duration: 01.07.2022 – 30.09.2022

A key question is how to find balance between naturalness/attractiveness of the environment, social and economic needs of the coastline's stakeholders (industrial parties, communities, tourists, citizens,...) and sustainable innovations and solutions. The Blue BALANCE project aims to guide all stakeholders towards sustainable transitions of the Flemish coastal region to create a social support base and license to operate for sustainable innovation and development.

Coastbusters 2.0

Duration: 01.02.2020 – 31.01.2023

An innovative collaboration between public and private parties, Coastbusters 2.0 will implement various reef facilitating systems to induce the formation of a biogenic mussel bed in an early stage and to achieve a nature inspired design (NID) for coastal defence.

PLUXIN - Plastic Flux for Innovation and Business Opportunities in Flanders

Duration: 01.09.2020 – 31.08.2023

A first prerequisite to take effective plastic remediation measures is to know where and when action should be taken. A central objective in this project is to develop a two-dimensional-horizontal (2DH) plastic dispersal model. The model will be calibrated and validated with experiments and field sampling data. Plastics will be identified from remote sensing reflectance data through image recognition algorithms ('Machine Learning'), hence resulting in an automated plastic detection method.

PROBIO - PROspection for BIOactive compounds in the North Sea

Duration: 01.11.2019 – 30.10.2022

Marine environments offer a wide variety of bioresources containing potential bioactive compounds. This project wants to unravel the underexplored potential of a selection of local organisms by screening their bioactive compounds. This project will generate an essential knowledge base to identify possible uses in commercial applications, which will trigger further research to foster new commercial developments in various sectors.

SUMES - Sustainable Marine Ecosystem Services

Duration: 01.09.2020 – 31.08.2023

The SUMES project aims to develop a model to assess the impact of human-induced changes on the ecosystem, its structure (e.g. biodiversity) and function (e.g. food chains, biogeochemistry), its capacity to provide marine ecosystems goods and services (e.g. sequestration of carbon) and subsequent consequences.

FUST - Flanders UNESCO Trust Fund for Science

Ocean InfoHub - The Ocean Information Hub

Duration: 01.05.2020 – 01.05.2022

The IOC Ocean InfoHub Project (OIH) aims to streamline access to ocean science data and information for management and sustainable development.

OTGA - Ocean Teacher Global Academy

Duration: sinds 2005

The OceanTeacher Global Academy (OTGA) project aims at building equitable capacity related to ocean research, observations and services in all IOC Member States. UNESCO/IOC's International Oceanographic Data and Information Exchange (IODE) programme has built a comprehensive Learning Management System (OceanTeacher) that, in combination with classroom training, has trained nearly 2000 students from 120 countries since 2005. This success demonstrates the expertise within IODE and its potential to expand the use of this methodology to other IOC programmes. The OTGA project will complement other existing training programmes of the IOC.

PacMAN - Pacific Islands Marine bioinvasions Alert Network

Duration: 01.05.2020 – 01.05.2022

The project will develop a national invasive species monitoring system as well as an early-warning decision-support tool for Pacific SIDS, offering a user-friendly dashboard indicating the potential presence of invasive species (including pathogens and pest species) or risk of invasions to support local management.

Other

APELAFICO - Acoustic ecology of pelagic fish communities: a study into the effects of construction and exploitation of wind farms

Duration: 01.01.2021 – 31.12.2023

Funding: NWO

This project concerns an interdisciplinary study with fundamental and applied aspects fitting the targets of the Dutch National Research Agenda (NWA). The project will collect data, using a set of echosounders, on density and diversity of pelagic fish in and around offshore windfarms in association with acoustic conditions during the construction and exploitation of windfarms.

Developing effective monitoring strategies to identify and evaluate effects of OWF on fish communities

Duration: 01.01.2021 – 31.12.2021

<https://www.france-energies-marines.org/en/projects/fishowf/>

Funding: CoReD

This project includes the following research lines:

- Research on reef and FAD effects
- Investigate the effects of electromagnetic fields on electrosensitive fish species
- Investigate the need for monitoring to detect these effects (possibly adapted to floating wind turbines)

Net op Zee Borssele (NOZ Borssele) - Electromagnetic fields monitoring and evaluation plan

Duration: 01.09.2021 – 31.12.2022

The plan consists of five sub-studies, namely [1] EMF strength and range, effects on: [2] marine mammals; [3] cartilaginous fish; [4] diadromous fish; and [5] benthic fish. In addition, it sets out how this plan contributes to the broader monitoring of the ecological effects of electromagnetic fields (EMFs).

Trainees, master students and student employees

Trainees supervised by VLIZ in 2022

LAST NAME	FIRST NAME	DIVISION	SCHOOL/UNIVERSITY
Amenu	Samuel Wagari	Research	VUB
Baron	Vera	Marine Observation Centre	Technical University Munich
Brar	Harsim	Research	UAntwerpen
De Geeter	Chiara	Marine Robotics Centre	UGent
De Wilde	Cynthia	Data Centre	UGent
Demeester	Fobe	Research	Howest
Droohenbroodt	Aagje	Science Communication	Stagiaire VIVES
Dumon	Dante	IT	Howest
Gallin	Matthieu	Research	UGent
Georgiou	Panagiotis	Valorisatie & Innovatie	University of The Azores
Hamard	Quentin	Research	Universite Jean Monnet Saint Etienne
Houyoux	Aimee	Marine Observation Centre	HZS Antwerpe, en U gent
Jünger	Axel	Infrastructure	UGent
Lambrechts	Evert	Research	UGent
Lechêne	Margot	Marine Observation Centre	M1 STAAE – DYNEA
Lemery	Hanaé	Research	Université de LYON
Libert	Aurelien	Data Centre	Worms
Lopez Lopez	Lucia	Research	VUB
Peter	Esther	General Support	SJO Petrus & Paulus
Pohl	Lotte	Data Centre	IMBRSEA
Saliu	Olayemi	Data Centre	VUB
Sotiropoulos	Thalia	Marine Observation Centre	University of Cologne
Stevens	Martha	Research	Imbsea
Thienpont	Amber	Science Communication	Artevelde hogeschool
Thienpont	Amber	Science Communication	Artevelde Hogeschool
Van de Poll	Bob	Science Communication	Hall institute
Van Haudenhuyse	Tibe	Marine Robotics Centre	UGent
Wamwachai	Mgeni	Data Centre	VUB
Yenney	Emma	Research	University of Koblenz-Landau

Master students supervised by VLIZ in 2022

LAST NAME	FIRST NAME	DIVISION	SCHOOL/UNIVERSITY
Anglada Segura	Sol	Research	VUB
De Witte	Yasmine	Research	UGent
Geeraerts	Elien	Research	UGent
Goossens	Cedric	Research	IMBRSEA
Kinet	Julia	Research	UGent
Leon	Maria Camila	Research	VUB
Oco	Regine Conda	Research	UGent
Philippe	Paulien	Research	KUL
Robbe	Magali	Research	UGent
Schoutteten	Louisa	Research	UGent
Timperman	Jade	Research	UGent
Wouters	Sophie	Research	UGent

Other students supervised by VLIZ in 2022

LAST NAME	FIRST NAME	DIVISION	SCHOOL/UNIVERSITY
Plijnaar	Lucille	Research	BSc - UUTRECHT
Toro	Miguel	Valorisation & Innovation	Emaüs school: internship Youca Day

Student employees supervised by VLIZ in 2022

- Aaron Van Den Broek
- Arienne D. Calonge
- Arno Vermote
- Arthur Catteuw
- Aurelie Bolders
- Ayrton Andre Rosado Huaynasi
- Charlotte Van den Auwelant (backup: Rita Trabulo Silva)
- Chiara Degeeter
- Cyrielle Delvenne
- D'hondt Guillaume
- Dina Hanifa
- Eli Devos
- Josephine Njeru
- Joy Ndwiga
- Jozefien Demeulenaere
- Judith Porters
- Kevin Mindiola Reyes
- Kimberly Tuytens
- Lien Gyselinck
- Lien Huong D. Nguyen
- Liesje Stubbe
- Liesje Stubbe
- Nils Jacobsen
- Robbe Vanhoecke
- Saumu Rumba
- Shamwari Anseeuw (backup: Mafalda Isidro)
- Stef Gerard
- Stef Vanhorebeek
- Svenja Woehle
- Tille Corremans
- Wout Decrop

Scientific equipment and infrastructure

Overview of scientific equipment and infrastructure for scientific research made available by VLIZ.

Water sampling and characterisation equipment

- Acoustic current meter (ADCP) and speed log
- Dissolved inorganic carbon analysis system
- System for oxygen analysis by means of Winkler titration
- Seawater acidity analysis system
- Aquadopp current profiler (ADCP)
- Signature 1000 ADCP (profiling, wave measurements & turbulence)
- Acoustic node with 1 subseanode and one topside node
- Broadband acoustic recorders
- Carrousel 6 x 4 litre Niskin bottles
- CTD equipped with sensors for:
 - Photosynthetically active radiation (PAR)
 - Dissolved oxygen and redox potential (ORP)
 - Turbidity
 - Chlorophyll a
- Aeolian sand transport monitoring network
- 10 litre go-flo bottle
- Methane sensor
- Multibeam sonar
- 5 litre Niskin bottle
- Nutrient analysis system
- Underway data acquisition system on board RV Simon Stevin with:
 - Thermosalinograph
 - Fluorometer
 - Atmospheric pCO₂ analysis system
 - Oxygen sensor
 - Turbidity sensor
- Secchi disk
- Total alkalinity sensor
- LISST-100X and LISST-200X turbidity meter

Soil sampling and soil mapping equipment

- Bowers & Connelly multi-corer
- Cohesive Strength Meter (CSM)
- Hamon grab
- Multibeam sonar
- Multibeam sonar system for shallow areas
- Multi-transducer sub-bottom echosounder
- Reineck box corer
- Sediment Profile Imaging (SPI)
- Singlebeam sonar
- Van Veen grab
- Sparker
- Gilson dredge
- Vibrocorer

Biological sampling equipment

- Bat recorder
- Bongon et
- Beam trawl
- Otter trawl
- Pelagic otter trawl
- Bowers and Connelly multi-corer
- Porpoise detectors – C-PODs
- Fast repetition rate Fluorometer (FrrF)
- FlowCam
- Flow cytometer
- Gilson dredge
- Hamon grab
- Hydrophone
- Hyperbenthic sledge
- Sieving table
- Apstein plankton net
- Calcofi plankton net
- Vertical WP2 plankton net
- Reineck box corer
- Sediment profile imaging (SPI)
- Sensor network for large birds
- Van Veen grab
- VEMCO fish acoustic receiver network in the Western Scheldt and coastal waters
- Video plankton recorder
- Zooscan

Miscellaneous

- Biology laboratory
- Chemical laboratory
- Compressor for filling diving cylinders
- Core repository – cold store for drill cores
- Freezers
- Weather station on board of RV Simon Stevin:
 - Atmospheric pCO₂
 - Wind speed
 - Wind direction
 - Temperature
 - Atmospheric pressure
- Microscopes
- Mini ROV
- Molecular laboratory
- Multi-sensor mooring with acoustic release
- Underwater camera
- RIB Zeekat
- ROV 'Zonnebloem' (ex 'Genesis')
- AUV 'Barabas'
- USV 'Adhemar'
- Glider 'Yoko'
- Video frame
- Water tanks voor marine organisms
- Web cameras

Research projects with utilization of VLIZ research infrastructure

Research projects that used the RV Simon Stevin in 2022

Marine Research group	Project
FPS Economy – Continental Shelf Service	Mapping gradients in seafloor characteristics
ILVO - Fisheries	Demersal Young Fish Survey (DYFS)
ILVO - Fisheries	Acute effects of dredging
ILVO - Fisheries	I CATCH
ILVO - Fisheries	LED
INBO	Monitoring of seabirds
OD Nature & Ugent - Marine biology	OUTFLOW
Ugent - Marine biology	HOTMIC
Ugent - Marine biology	FOOTPRINT
Ugent - ARC	UNITED
University of Antwerp	Electrified sediment ecosystems
VLIZ	North Sea Wracks
VLIZ	Metatranscriptomics of plankton
VLIZ	ICOS
VLIZ	LifeWatch measurement campaigns
VLIZ	PLUXIN
VLIZ	JERICO-Next
VLIZ	Paleolandscapes of the Southern North Sea
VLIZ	APELAFICO
VLIZ, ILVO	Coastbusters2.0
VLIZ	FishIntel
VLIZ	Exploration Zone
VLIZ	Gene expression zooplankton
VLIZ	Net op Zee
VLIZ	Testerep

Research projects that used the Marine Station Ostend in 2022

Used MSO infrastructure	Reason	Marine Research Group
Courtyard	North Sea Wrecks - opstelling corrosie experimenten	HZS Antwerpen
Mesocosms	Enhanced Silicate Weathering	VLIZ, Universiteit Antwerpen
Lab infrastructure	ICOS	VLIZ
Lab infrastructure	LifeWatch	VLIZ
Courtyard	UNITED	Ugent, Colruyt Group, Parkwind, Jan De Nul, Brevisco & RBINS

Events

Events (co)organized by VLIZ in 2022

Date	Title	Location	Role of VLIZ	Participants
7 Feb 2022 until 09 Feb 2022	Blue-Cloud HACKATON	Online	Co-organizes	100
08 Feb 2022	VLIZ PhD symposium	Online	Organizes	59
02 Mar 2022	VLIZ Marine Science Day	Online	Organiseerd	350
10 Mar 2022	Let it drift... Trends and challenges for dunes on a changing coast	De Grote Post	Co-organizes	100
16 Mar 2022	Commissioning of InnovOcean Campus	InnovOcean Campus	Co-organizes	20
19 Mar 2022	Great Shell Counting Day 2022	M50 Warehouse 4	Co-organizes	500
22 Mar 2022	Egmont Institute Blue Economy delegation	InnovOcean Campus	Co-organizes	15
28 Mar 2022 tot 30 Mar 2022	3-day event for winners of the Planeet Zee competition	Simon Stevin	Organizes	21
20 Apr 2022	Kick off meeting Testerep	InnovOcean Campus	Co-organizes	38
24 Apr 2022	European Sea Gull Screeching Championship	De Verloren Gernoare (Adinkerke)	Co-organizes	100
25 Apr 2022	Think Tank North Sea Working group meeting	InnovOcean Site	Organizes	40
04 May 2022 tot 05 May 2022	EMODnet Biology annual meeting	InnovOcean Site	Organizes	28
08 May 2022	ZEEKERWETEN - CitizenScience@SeaFestival	de Polderstreek	Organizes	500
10 May 2022 tot 13 May 2022	LifeWatch-WoRMS Decapoda Editors Workshop	InnovOcean Site	Organizes	16
18 May 2022	BESS Event 2022	Bluebridge	Co-organizes	100
19 May 2022	Lectures World Ocean Day at 'Ostend at Anker'	3-masted barque 'Le Français'	Organizes	50
24 May 2022 tot 25 May 2022	EBR II Conference - Empowering Biodiversity Research	Africa Museum	Co-organizes	100
30 May 2022	Think Tank North Sea Working group meeting	InnovOcean Campus	Organizes	40
07 Jun 2022	VUB CORRIENTE XXI	InnovOcean	Co-organizes	15
08 Jun 2022	Plastic Pirates	ISARA Nieuwpoort	Co-organizes	60
14 Jun 2022	Official signing of collaboration agreement PWVL - VLIZ & Press Moment	InnovOcean Campus	Co-organizes	20
06 Jul 2022	Blue Opportunity and Networking Day – Official signing MoU UGent-VLIZ	Bluebridge	Co-organizes	40
05 Sep 2022	Working group meeting 'Ecological & Sustainable Blue Growth' - Think Tank North Sea	De Cierk	Organizes	20
23 Sep 2022	VLIZ Members' Day	InnovOcean Campus	Organizes	150
06 Oct 2022	SEAposium OHG/OPUA - APZIVOKA	InnovOcean Campus	Co-organizes	120

07 Oct 2022	LifeWatch - Atlas Living Australia meeting	InnovOcean Campus	Organizes	7
14 Oct 2022	Study day on fossils	InnovOcean Campus	Co-organizes	140
21 Oct 2022	JPI Oceans	InnovOcean Campus	Organizes	20
27 Oct 2022	EMB Autumn Plenary Meeting 2022	InnovOcean Campus	Co-organizes	45
08 Nov 2022	Visit UN Department for Safety and Security (UNDSS)	InnovOcean Campus	Organizes	10
25 Nov 2022	Press Moment 'Expedition Simon Stevin'	De Vlaamse Waterweg, Willebroek,	Organizes	50
26 Nov 2022	Educational trip Simon Stevin – Science Day (organized by Flemish government)	Napoleon Kaai - Antwerpen	Organizes	20
27 Nov 2022	Science Day (organized by Flemish government) - Climb aboard a research vessel	Napoleon kaai - Antwerpen	Co-organizes	20
02 Dec 2022	Ocean Decade National Committee (Core Group)	InnovOcean Campus	Organizes	20
05 Dec 2022	InnovOcean Campus: Official inauguration	InnovOcean Campus	Organizes	150
10 Dec 2022	Study & meet day coastal guides 2022	ABC toren Zeebrugge	Co-organizes	150

Publications

De Grote Rede

(2022). De Grote Rede 55. *De Grote Rede: Nieuws over onze Kust en Zee*, 55. Vlaams Instituut voor de Zee (VLIZ): Oostende. 32 pp.

(2022). De Grote Rede 56. *De Grote Rede: Nieuws over onze Kust en Zee*, 56. Vlaams Instituut voor de Zee (VLIZ): Oostende. 28 pp.

Vlizine / Testerep magazine

In 2022, a total of 11 issues of the e-newsletter Testerep appeared.

Library Acquisitions

In 2022, a total of 41 Library Acquisitions lists were sent out by e-mail.

Zeekrant

Seys, J.; Bogaert, K.; Tavernier, I.; De Smet, B.; Fockedeey, N.; Bouwens, S.; Depoorter, M. (Ed.) (2022). [Zeekrant 2022](#): annual publication of Flanders Marine Institute and the province of West Flanders. Vlaams Instituut voor de Zee (VLIZ) / Provincie West-Vlaanderen: Oostende. 8 pp.

VLIZ Special Publications

Mees, J.; Seys, J. (Ed.) (2022). Book of abstracts – VLIZ Marine Science Day, Online event 2 March 2022. *VLIZ Special Publication*, 88. Vlaams Instituut voor de Zee - Flanders Marine Institute (VLIZ): Oostende. v, 91 pp. <https://dx.doi.org/10.48470/24>

Strypsteen, G.; Roest, B.; Bonte, D.; Rauwoens, P. (2022). Book of abstracts: Building coastal resilience 2022, Bruges, Belgium, 12-13 April 2022. *VLIZ Special Publication*, 89. KU Leuven/Flanders Marine Institute: Leuven. iv, 81 pp. <https://dx.doi.org/10.48470/28>

A1 publications written by VLIZ employees

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- de Luca Peña, L.V.; Taelman, S.E.; Pr at, N.; Boone, L.; Van der Biest, K.; Cust dio, M.; Lucas, S.H.; Everaert, G.; Dewulf, J. (2022). Towards a comprehensive sustainability methodology to assess anthropogenic impacts on ecosystems: Review of the integration of Life Cycle Assessment, Environmental Risk Assessment and Ecosystem Services Assessment. *Sci. Total Environ.* 808: 152125. <https://dx.doi.org/10.1016/j.scitotenv.2021.152125>
- De Witte, B.; Catarino, A.I.; Vandecasteele, L.; Dekimpe, M.; Meyers, N.; Deloof, D.; Pint, S.; Hostens, K.; Everaert, G.; Torrelee, E. (2022). Feasibility study on biomonitoring of microplastics in fish gastrointestinal tracts. *Front. Mar. Sci.* 8: 794636. <https://dx.doi.org/10.3389/fmars.2021.794636>
- Leone, G.; Catarino, A.I.; Pauwels, I.; Mani, T.; Tishler, M.; Egger, M.; Forio, M.A.E.; Goethals, P.L.M.; Everaert, G. (2022). Integrating Bayesian Belief Networks in a toolbox for decision support on plastic clean-up technologies in rivers and estuaries. *Environ. Pollut.* 296: 118721. <https://dx.doi.org/10.1016/j.envpol.2021.118721>

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- van der Knaap, I.; Slabbekoorn, H.; Moens, T.; Van den Eynde, D.; Reubens, J. (2022). Effects of pile driving sound on local movement of free-ranging Atlantic cod in the Belgian North Sea. *Environ. Pollut.* 300: 118913. <https://dx.doi.org/10.1016/j.envpol.2022.118913>
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A selection of publications (co)written by VLIZ employees

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VLIZ Acknowledgements

VLIZ was mentioned in the 'acknowledgements' of 1268 publications.

Press releases

- 2022-03-02 Minister Hilde Crevits ambitious during VLIZ Marine Science Day: "Knowledge is the source of sustainability"
- 2022-03-16 Fifth bang edition of the Great Shell Counting Day (only in Dutch)
- 2022-03-23 Citizens collect 60.000 shells during successful beach survey, showing remarkable differences between Belgium and the Netherlands
- 2022-03-25 Bruges class wins Planeet Zee competition on climate and the ocean (only in Dutch)
- 2022-03-29 Very first finds of the mythical Great Auk on Belgian coast
- 2022-04-05 Scientists discovered more than 2.000 new marine animals and plants in 2021
- 2022-04-28 Biodiversiteit ontdekken. meteen weten op eerste burgerwetenschapsfestival aan zee
- 2022-06-07 VLIZ and students of 'De Studio' collect plastic litter at the IJzer estuary and thus support scientific research and policymakers
- 2022-08-01 Flanders uses North Sea experience with innovative measuring equipment in top research on climate effects in Greenland
- 2022-09-28 Flemish schools investigate waste in rivers as part of European 'Plastic Pirates' initiative (only in Dutch)
- 2022-10-03 Beach as site of primordial life flooded North Sea plain (only in Dutch)