First consultation workshop for the project

OPERA - "Ocean Prediction Enhancement in Regions of Africa"

8-10 April 2025 | Cape Town, South Africa

In the framework of the project **OPERA - Ocean Prediction Enhancement in Regions of Africa**, the workshop brought together representatives from key African institutions working in ocean forecasting activities and applications, and from regional groups including IOCAfrica, the Ocean Decade Africa Taskforce, GOOS Africa and the GMES and Africa programme's marine consortia.

35 participants attended the workshop, representing 12 African countries (Benin, Cameroun, Cote D'Ivoire, Ghana, Kenya, Mauritius, Madagascar, Mozambique, Nigeria, Senegal, South Africa, Tanzania).

The meeting was organised by Mercator Ocean International, entrusted by the European Commission (DG INTPA) to implement the OPERA project, in collaboration with the South African Environmental Observation Network (SAEON), co-chair of the OceanPrediction Decade Collaborative Centre (DCC) African Regional Team. The meeting took place at the SAEON Offices in the Foretrust building of the Department of Forestry, Fisheries and the Environment.

Workshop objectives

- Introduce the OPERA project (objectives, activities, implementation plan over the four years, calls for participation, expected outcomes)
- Introduce the context of the project and its contribution to the OceanPrediction Decade Collaborative Centre, and specifically its African regional team and the Ocean Decade Africa Roadmap/ SEAWARD programme
- Identify and map ocean forecasting activities, existing applications, users, and partnerships in Africa
- Identify needs and priorities in terms of ocean forecasting systems and applications, building on results from African ocean forecasting survey launched in 2024
- Start to define the ocean forecasting component of the knowledge hub outlined in the Ocean Decade Africa Roadmap

Workshop proceedings

Setting the stage

The beginning of the workshop served to provide context with opening remarks from SAEON and Mercator Ocean International, serving mainly to:

Introduce the OPERA project in the context of the OceanPrediction Decade Collaborative Centre (DCC) and its African Regional Team.

OPERA is a 4-year project aiming to strengthen ocean prediction capabilities and cooperation at national, regional, pan-African levels in Sub-Saharan Africa. Funded by the European Union (EU), OPERA is the ocean component, one of five, of the European Commission's "Support to Africa Regional Centres of Excellence related to Green Transition in Sub-Saharan Africa (2021-2027) – the ArcX programme".

Driven by African priorities and needs outlined in key strategy documents, OPERA will

facilitate collaboration between African and European partners to co-design, co-develop, and implement fit-for-purpose, coordinated ocean forecasting systems and applications through the establishment of Digital Ocean Centres in Sub-Saharan Africa. These efforts will be reinforced by capacity-building and active user engagement actions to ensure long-term impact and sustainability. Furthermore, OPERA will lay a strong foundation for ocean forecasting services development and capacity building activities strongly contributing to the OceanPrediction Decade Collaborative Centre (DCC)'s mission to grow the global community and build a technical framework around ocean forecasting, with a focus on the DCC's African regional team. OPERA is implemented by Mercator Ocean International through its role as coordinator of the OceanPrediction DCC and will run from January 2025 to December 2028.

Provide an overview of IOCAfrica and GOOS Africa

The IOC Sub-Commission for Africa and Adjacent Island States (IOC Africa) is the regional branch of UNESCO's Intergovernmental Oceanographic Commission for Africa. Its main role is to coordinate, promote, and support marine science, ocean services, and capacity development across African countries to sustainably manage and benefit from the ocean. The African regional alliance of the Global Ocean Observing System (GOOS Africa), coordinated by IOC UNESCO, serves to promote, coordinate, and strengthen ocean observations around Africa — helping countries build the systems they need to monitor, understand, and predict the ocean for the benefit of society. OPERA has much to benefit from collaborating with IOCAfrica to access networks and expertise across the continent, gain political support and visibility across countries and regional institutions, and amplify the impact and sustainability of solutions developed in the project. The IOCAFRICA-VIII session and its science conference on blue economy (5-6 May), would be a good opportunity to announce OPERA to IOCAfrica member states and partners.

Present the Ocean Decade Africa Taskforce, and its umbrella programme SEAWARD Africa - "Science and Knowledge for a Resilient and Sustainable Ocean Economy in Africa".

The Ocean Decade programme "SEAWARD Africa" aims to provide a coordinated framework for the implementation of the Ocean Decade Africa Roadmap, which provides a vision and plan for diverse stakeholders to convene around a common set of priorities for the implementation of the Ocean Decade in Africa. Within this context, there is strong focus to endorse OPERA as a Decade Action under SEAWARD in the next call for Decade Actions opening on 15 April.

Share examples of activities around ocean forecasting and applications in Sub-Saharan Africa

This session included summary presentations from representatives from national agencies on ocean forecasting activities, providing a snapshot of the systems in place, including models employed, system validations, examples of applications, users, as well as limitations and future perspectives. Activities from the following agencies were presented: the South African Environmental Observation Network (SAEON), Tanzania Meteorological Authority, the Centre de Recherches Océanographiques de Dakar-Thiaroye (CRODT), the BENIN Institute of Fisheries and Oceanological Research (IRHOB), Mozambique National Institute of Meteorology (INAM), the Societe d'Exploitation et de

Developpement Aeroportuaire, Aeronautique et Meteorologique (SODEXAM) - Côte d'Ivoire and the Ghana Meteorological Agency.

- The session concluded with a review of applications by the GMES and Africa programme's marine consortia MarCOSIO (https://marcosio.org/) and MarCNoWA (https://gmes.rmc.africa/), emphasing the importance of avoiding duplication and instead focusing on developing new innovative solutions or enhancing existing ones.

Present examples of European capabilities

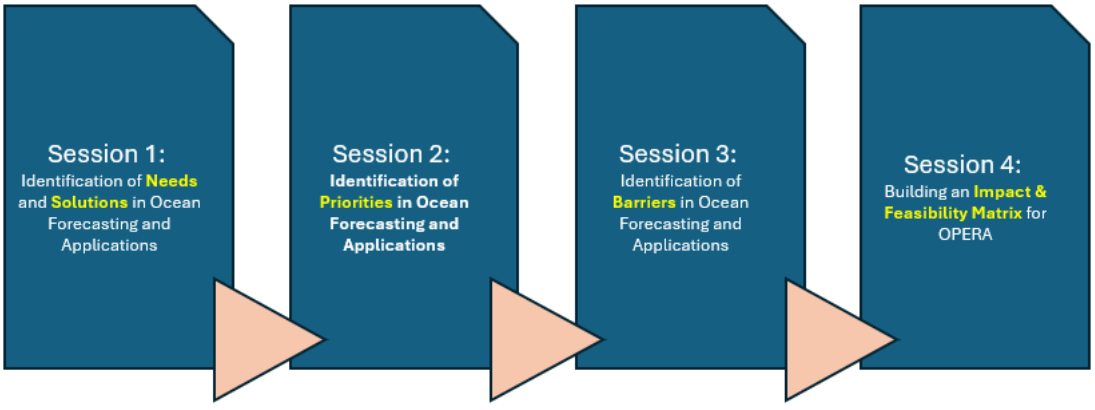
The European Digital Twin Ocean initiative was presented and its core infrastructure – the EDITO platform https://dive.edito.eu/?lang=en. A major initiative of the European Union, the EU DTO's core infrastructure development is led by Mercator Ocean International. It combines marine data, models, artificial intelligence, and high-performance computing to simulate, predict, and visualize ocean conditions. Through the EDITO platform, users can access comprehensive data catalogues from Copernicus Marine and EMODnet, explore datasets through interactive data visualisation tools, and build their own applications, dashboards and decision support tools.

The University of Cantabria presented a tropical cyclone alert using a hybrid probabilistic approach as an inspiring example of an operational service developed.

All the presentations from the above sessions can be found here.

Interactive Sessions

Participants were split in two groups: i) West & Central Africa and ii) Southern & East Africa for a series of interactive sessions. These sessions served to identify the ocean forecasting services, and the applications based on Ocean forecasting data, that could provide a maximum benefit for Sub-Saharan Africa, and to analyse the feasibility of their implementation in OPERA.



Session 1: Objective was to identify key needs and potential solutions in ocean forecasting and its applications. A "need" is related with a "problem to be solved". For example, mortality of seafood due to Harmful Algal Bloom is a problem, and to solve it is the "need".

Session 2: Objective was to prioritise the most **desired solutions** in ocean forecasting and its applications, based on the needs identified in the previous session 1. Each participant individually ranked their top five solutions (both for ocean forecasting models and applications) without considering budget constraints.





Session 3: Objective was to identify **barriers** that hinder the implementation of the preferred solutions. In this session, the 10 highest score applications and forecasting services from previous session 2 were considered.

Identified barriers included:

- **Sustainable Funding**: Ensuring reliable, long-term funding remains critical, particularly when faced with budget cuts and ministry restructuring

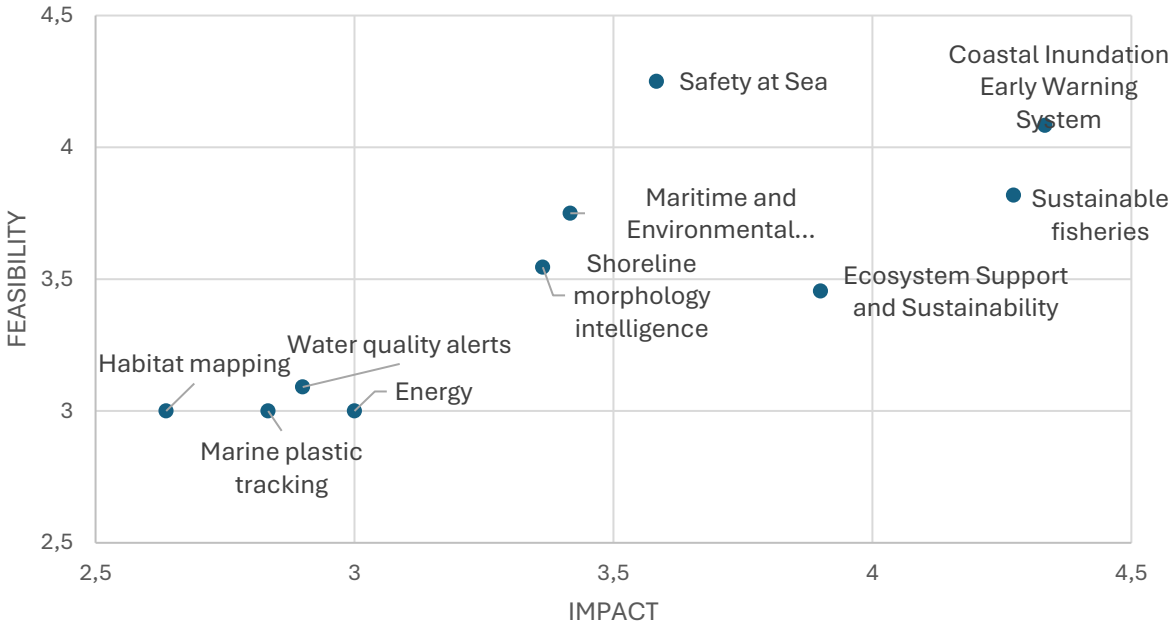
- **Strong User Engagement:** It is essential to involve users early in the design process, co-develop fit-for-purpose dissemination tools, and clearly demonstrate the value and benefits of using the solutions.
- **Strengthened Partnerships**: Greater regional and inter-institutional collaboration is needed, especially to overcome conflicting mandates among national institutions and to promote effective and open data sharing.
- **Operational Limitations:** Challenges such as limited computing infrastructure, cybersecurity vulnerabilities, unreliable power and internet supplies, and the need for low-cost solutions must be addressed.
- **Data Gaps:** There is a critical shortage of high-resolution data especially in situ (e.g., from SAR systems, wave, biogeochemical and biological data, among others). Solutions must also be downscaled to support local-level applications. Other concerns include lack of long-term data and cloud cover affecting ocean colour data.
- **Human Capacity Development:** There is an urgent need to strengthen technical skills in model development, operations, and system management across the region.
- **Building Trust and Community Integration:** Efforts must be made to build trust within local communities, integrate indigenous knowledge systems, and adapt communication tools — including language and cultural considerations. Need for a trust vector/spokesperson within a community to advocate for impactful science-based solutions.

The results from these sessions aligned well with the gaps and needs identified by the Barriers the OceanPrediction DCC survey on the status of ocean forecasting in Africa .

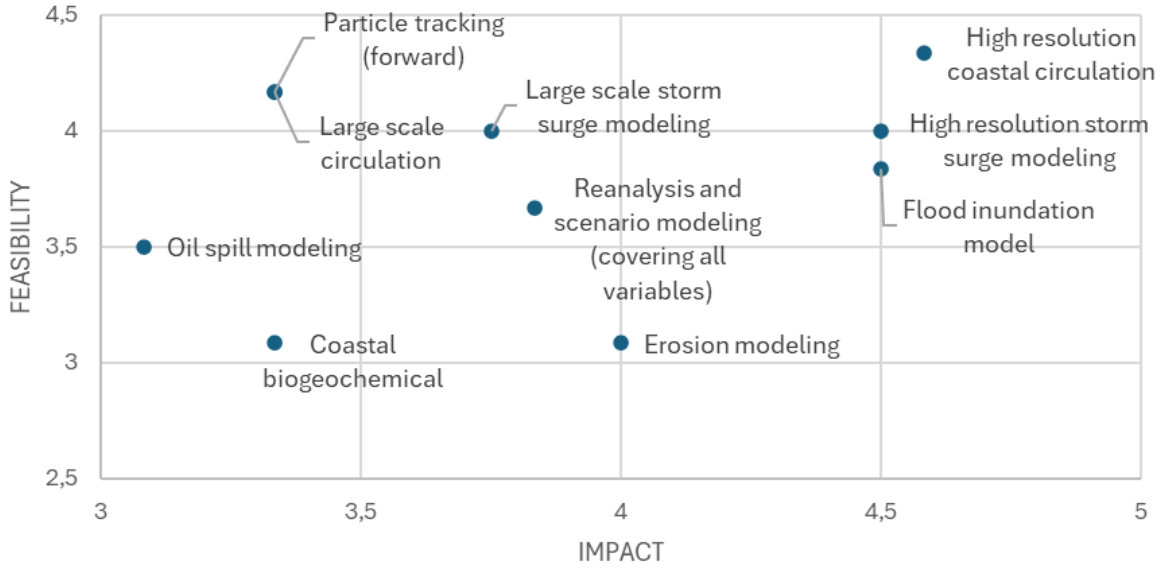
Session 4: Objective to assess the **impact and feasibility** of the top 10 prioritised applications and forecasting services **within the context of the OPERA project.** Each of the applications and forecasting services were given a score of impact (socio economic and environmental, sustainability) and feasibility (budget, existing capabilities, timeframe for development in the framework of OPERA). The scores are from 1 having lowest to 5 having highest impact or feasibility. The applications and ocean forecasting systems with the highest impact and feasibility are found in the top right quadrant.

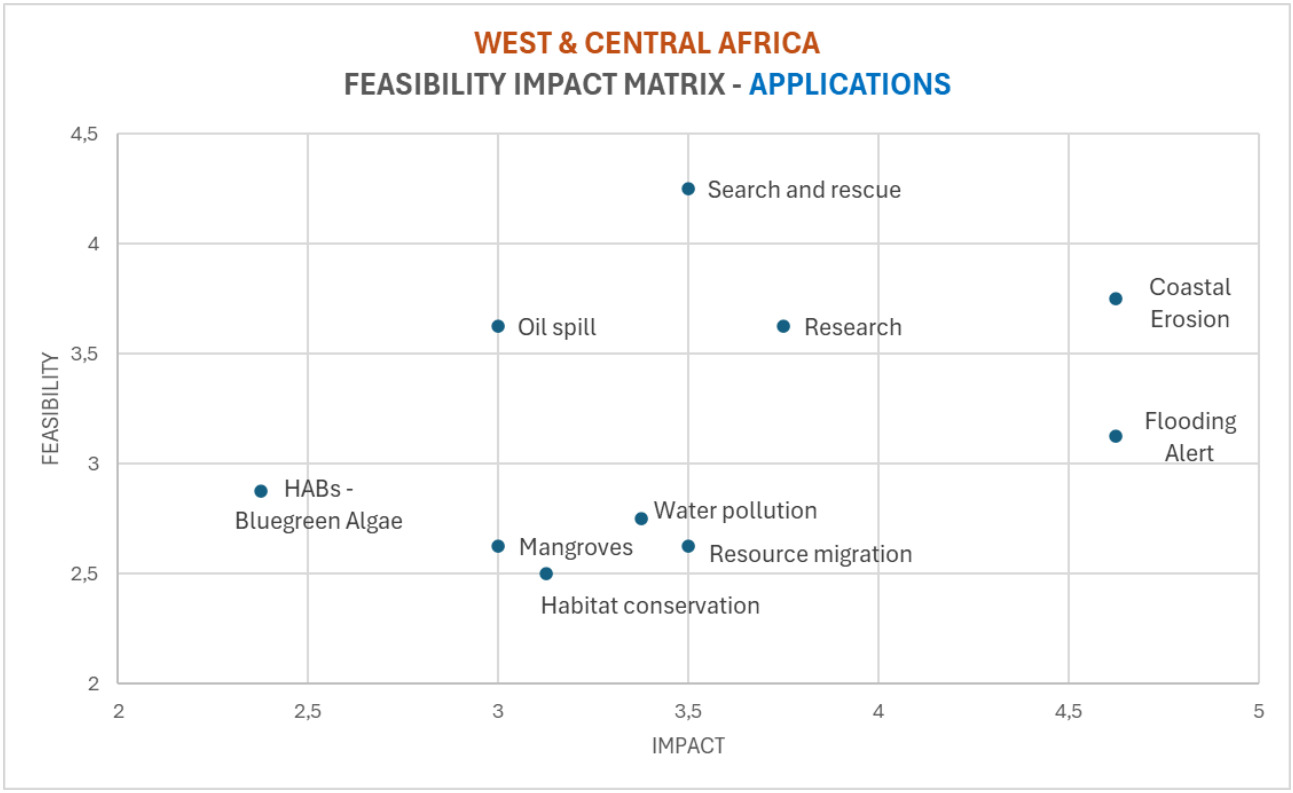
The outcomes are as follows for each group:

SOUTHERN & EAST AFRICA
FEASIBILITY IMPACT MATRIX - APPLICATIONS



SOUTHERN & EAST AFRICA
FEASIBILITY IMPACT MATRIX - OCEAN FORECASTING SYSTEMS




WEST & CENTRAL AFRICA
FEASIBILITY IMPACT MATRIX - APPLICATIONS
FEASIBILITY
IMPACT
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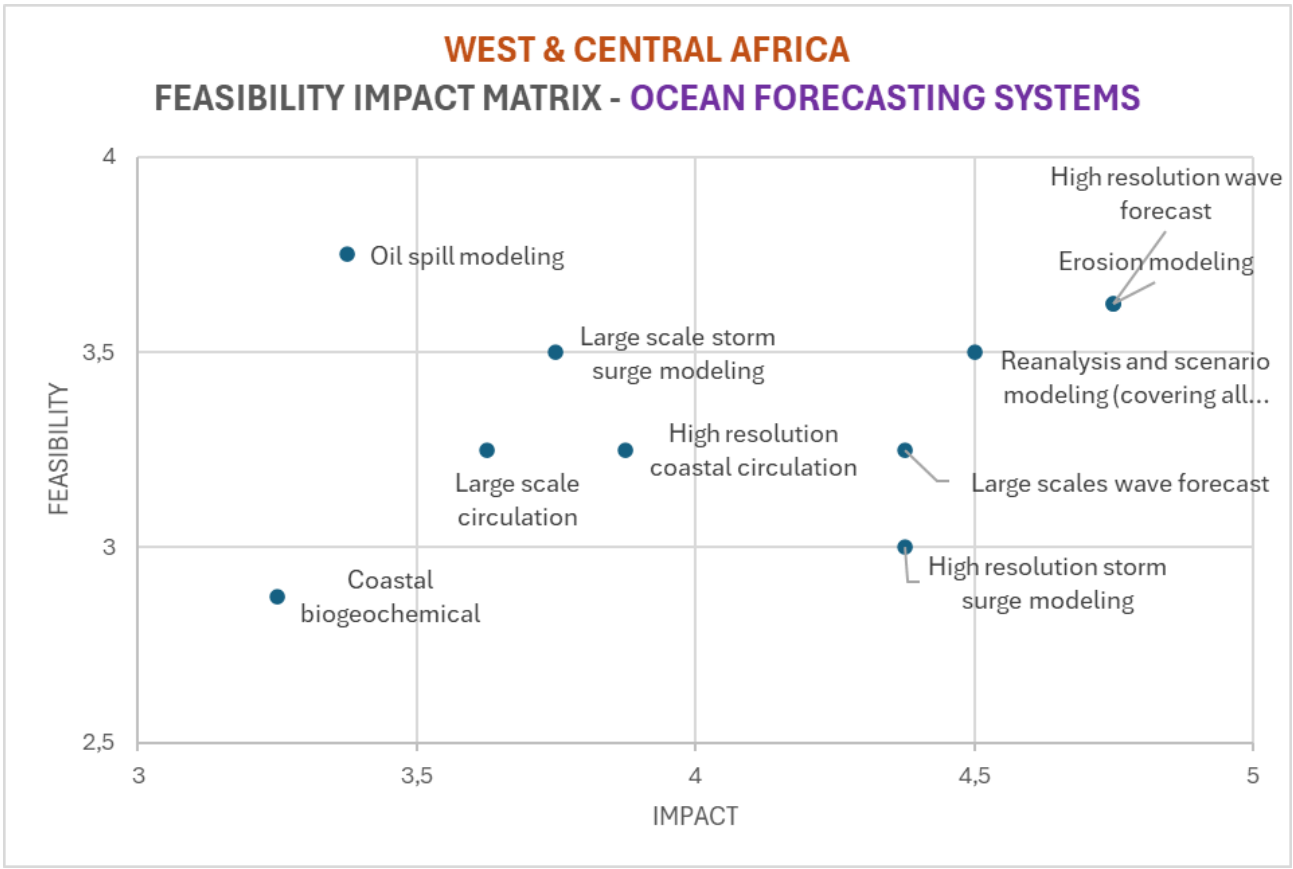
3,5
3
2,5
2
2
2,5
3
3,5
4
4,5
5
Search and rescue
Oil spill
Research
Coastal Erosion
Flooding Alert
HABs - Bluegreen Algae
Water pollution
Mangroves
Resource migration
Habitat conservation


WEST & CENTRAL AFRICA
FEASIBILITY IMPACT MATRIX - OCEAN FORECASTING SYSTEMS
FEASIBILITY
IMPACT
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3,5
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4,5
5
High resolution wave forecast
Erosion modeling
Oil spill modeling
Large scale storm surge modeling
Reanalysis and scenario modeling (covering all...
High resolution coastal circulation
Large scale circulation
Large scales wave forecast
High resolution storm surge modeling
Coastal biogeochemical

Session on Ocean Data Platforms

On the last day, there was a session on ocean data platforms. This included a presentation from IOCAfrica on existing data infrastructures and objectives of the Africa Knowledge Hub as set out in the Ocean Decade Africa Roadmap. There was a short description of the EC JRC's Africa Knowledge Platform (https://africa-knowledge-platform.ec.europa.eu/), which OPERA will have to contribute to as the ocean component of the ArcX programme. This was followed by a short presentation on the European Digital Twin Ocean platform, which integrates data catalogues from both the Copernicus Marine Service and the European Marine Observation and Data Network (EMODnet). The session ended with a discussion on how OPERA can leverage existing data infrastructures in Africa in contributing to the ocean forecasting component of the Africa Ocean Knowledge Hub (OPERA Work Package 6).

Concluding remarks and wrap-up

The event finished with a short discussion on how to leverage the OceanPrediction DCC African Regional Team and its community building efforts in OPERA.

The concluding remarks highlighted the event's impact, not only for OPERA during its current preparation phase, but also for participants by facilitating knowledge sharing on existing efforts, identifying needs and priorities and supporting networking.

The next steps include,

- An online 2-hour information session on **14 May (10 am SAST/ UTC+2** on the upcoming calls for tender
- An online session once calls are launched on how to answer calls (tbc if within legal framework of competitive calls, so no applicant is more advantaged)
- Preparation of a detailed analytical report on all the ocean forecasting activities and applications submitted in preparation of the workshop and summary of findings
- A 5-minute video with contribution from 10 participants to be shared at UNOC3 at the EU Digital Ocean Pavilion
- Launch of invitations to set up the OPERA advisory board
- An OPERA dedicated session during the OceanPrediction DCC event on 10 June at UNOC3 at the EU Digital Ocean Pavilion/ Green Zone

A special thank you goes out to SAEON and the South African Department of Forestry, Fisheries and the Environment for hosting and significant help in organising the event. Another thank you to all the participants who attended the workshop, engaged in meaningful discussions, sharing their insights and experiences, which contributed greatly to the workshop's success.

Useful links

OceanPrediction Decade Collaborative Centre

- OPERA Workshop event page (including replays and presentations): https://events.unoceanprediction.org/ocean-prediction-enhancement-in-regions-of-africa
- OPERA project information page: https://www.unoceanprediction.org/en/opera-ocean-prediction-enhancement-regions-africa
- African regional team: https://www.unoceanprediction.org/en/regional-team-african-seas
- Summary results from survey on ocean forecasting in Africa: https://www.unoceanprediction.org/sites/default/files/paragraph/file/2024-10/OceanPrediction%20DCC%20Africa%20Survey_Summary_0.pdf
- Technical framework and ocean forecasting guides: https://www.unoceanprediction.org/en/about/technical
- ATLAS of experts, modelling systems, use cases: https://www.unoceanprediction.org/en/atlas/

IOCAfrica

- Scientific Conference on Advancing the Blue Economy in Africa, 5-6 May 2025: https://www.ioc-africa.org/iocafrica-scientific-conference.html
- Eighth Session of the IOC Sub-Commission for Africa and the Adjacent Island States (IOCAFRICA-VIII) in Mombasa, Kenya, from May 7-9, 2025: https://www.ioc-africa.org/ioc-africa-eighth-session.html

Ocean Decade Africa Taskforce

- Ocean Decade Africa Taskforce: https://oceandecade.org/publications/ocean-decade-africa-roadmap/
- SEAWARD Africa programme: https://oceandecade.org/actions/seaward-africa/

European Support to African Regional Centres of Excellence Programme (ArcX) - https://arcx.green/

African Knowledge Platform: https://africa-knowledge-platform.ec.europa.eu/arcx

Annex 1: About the OPERA project

The OPERA - Ocean Prediction Enhancement for Regions of Africa" project is a 4-year project (1 Jan 2025 to Dec 2028) aiming to strengthen ocean forecasting capabilities and cooperation in Africa. The project's objectives include:

- establish a coordinated and dynamic community of ocean forecasting in Africa linked to the global ocean forecasting community for sharing of information, capacities, innovations, and opportunities
- carry out capacity development, knowledge and technology sharing activities targeting a broad range of stakeholders in Africa to develop, access, use, and tailor existing ocean forecasting services and tools.
- establish 3 consortia of up to 5 African partners each to co-design, develop, and deliver fit-for-purpose and coordinated ocean forecasting systems (consortium 1), services and applications (consortia 2 and 3) based on African needs and priorities.
- strengthen uptake and use of the action's deliverables through stakeholder engagement activities and the development of outreach activities, materials, and knowledge tools targeted to authorities and decision-makers and supporting regional or pan-African policy needs, ensuring sustainability of the action.

Funded by the European Union, OPERA is the ocean-focused component of the **African Regional Centres of Excellence for the Green Transition (ArcX) programme**. This overarching programme is dedicated to strengthening Digital and Science, Technology, and Innovation capacities in **Sub-Saharan Africa**, fostering scientific knowledge and innovation-driven sustainable development. Mercator Ocean International, through its coordinating role in the **OceanPrediction Decade Collaborative Centre**, has been entrusted with implementing OPERA over the course of four years, from January 2025 to December 2028.

OPERA aims to build on and complement existing regional mandates and networks covered by other programmes such as GMES and Africa and will work closely with regional bodies including IOC Sub Commission for Africa and the Adjacent Island States, African Ocean Decade Taskforce, the OceanPrediction DCC's African regional team, UNEP African Sea Conventions, among other key partners to guide the project's activities and ensure its uptake and sustainability.

The project will run in two phases. The first phase (Year 1) will carry out preparatory work encompassing mapping existing ocean forecasting activities and applications and identifying needs and priorities through a series of consultation meetings with providers and stakeholders at local and regional scale in Africa. Following these consultations and information collected, different calls for tender will be prepared and launched for grant applications for the different consortia, capacity development, and technology transfer. This will be followed by an implementation phase, with the aim to start in year 2 (Jan 2026) that will focus on the launch of the consortia and development of ocean forecasting systems and applications, the ocean knowledge hub, and supporting activities.

ANNEX 2: Final Agenda

	TUESDAY, 8 APRIL	Speaker(s)
	INFORMATION - STATUS OF ACTIVITIES (IN-PERSON & ONLINE)	
9:00 - 9:10	Welcome Address	Dr. Mary-Jane Bopape Managing director South African Environmental Observation Network (SAEON)
9:10 1 9:20	Welcome - Presentation of overall context & meeting objectives	Dr. Enrique Alvarez Technical Coordinator OceanPrediction DCC Mercator Ocean International
9:20 - 9:30	OceanPrediction DCC - African Regional Team	Pr. Kouadio Affian Chair of IOC AFRICA /UNESCO Chair of OceanPrediction DCC African Regional Team University Felix Houphouet-Boigny, Côte d'Ivoire
9:30 - 9:45	Presentation of Mercator Ocean Int. and activities in Africa	Lillian Diarra OPERA project manager Mercator Ocean International
9:45 - 10:30	Presentation of the UNESCO-IOC Sub-Commission for Africa and Adjacent Island States	John Ngatia Programme Assistant IOCAfrica
10:05-10:30	Presentation of Ocean Decade Africa Taskforce and Roadmap, and the SEAWARD programme	Dr. Kwame Koranteng Ocean Decade Africa Taskforce
10:30-11:00	COFFEE/TEA BREAK	
11:00-11:20	Presentation of OceanPrediction DCC survey results on status of ocean forecasting and future needs for Africa	Dr. Jennifer Veitch Head of the Sustainable Ocean Modelling Initiative: a South African Approach South African Environmental Observation Network (SAEON) Co-chair of the OceanPrediction DCC African Regional Team
11:20 - 12:15	OPERA project presentation and Q&A session	Dr. Enrique Alvarez Technical Coordinator OceanPrediction DCC Mercator Ocean International
12:15-12:30	The Global Ocean Observing Systems in Africa (GOOS-AFRICA) as the Pioneering Framework for Ocean Forecasting and Predictions in Africa	Dr. Justin Ahanhanzo Senior expert GOOS Africa
12:30-14:00	LUNCH BREAK	
14:00-15:30	**Ocean Forecasting Session** • Presentation ocean forecasting activities in Africa ○ South African Environmental Observation Network (SAEON) - Dr Jennifer Veitch	

	○ Tanzania Meteorological Authority – Mr. Chuki Sangalugembe ○ Centre de Recherches Océanographiques de Dakar-Thiaroye (CRODT) – Dr. Ismaila Ndour ○ BENIN Institute of Fisheries and Oceanological Research (IRHOB) – Dr. Frédéric Bonou ○ Mozambique National Institute of Meteorology (INAM) – Dr. Bernardino Nhantumbo ○ Societe d'Exploitation et de Developpement Aeroportuaire, Aeronautique et Meteorologique (SODEXAM) - Côte d'Ivoire – Mr. Otobou Gnagne Dominique Yamba ○ Ghana Meteorological Agency – Mr. Adom Derkye	
15:30-16:00	TEA/COFFEE BREAK	
16:00-17:30	**Applications Session** • GMES and Africa overview • Summary presentation of applications by region MarCOSIO and MarCNoWA marine consortia	Sives Govender Spatial Information Systems research group leader/ MarCOSIO coordinator Council for Scientific and Industrial Research (CSIR) Dr. Kwame Adu Agyekum Fisheries Officer/Marine Earth Observation Analyst MarCNoWA coordinator University of Ghana
19:00 - 21:00	**SOCIAL DINNER**	
	WEDNESDAY 9 APRIL	
	SESSION: IDENTIFICATION OF NEEDS (By invite only)	
9:00-9:05	Welcome and presentation of agenda	Lillian Diarra OPERA project manager Mercator Ocean International
9:05-9:45	Presentation of European Digital Twin of the Ocean (EDITO platform) + discussion	Dr. Marina Tonani - EDITO project manager, Mercator Ocean International
10:00-10:15	Tropical cyclone alert (streamed online)	Dr. Fernando J. Mendez Professor of Coastal Engineering - GeoOcean. Geomatics and Ocean Engineering Group Universidad de Cantabria
10:15-10:30	Presentation of interactive session objectives and methodology	Dr. Enrique Alvarez Technical Coordinator OceanPrediction DCC Mercator Ocean International
10:30-11:00	COFFEE BREAK	
11:00-12:30	Interactive session 1 (part A): Two breakout groups to identify coastal challenges and optimal solutions integrating ocean forecasting	**Facilitators:** Enrique Alvarez, Lillian Diarra, Christo Whittle, Stewart Bernard **Rapporteurs:** Marie Smith & Jennifer Veitch
12:30-14:00	LUNCH BREAK	
14:00- 15:00	Interactive session 1 (part B): Plenary session to discuss results of interactive session	**Facilitators:** Enrique Alvarez, Lillian Diarra, Christo Whittle, Stewart Bernard **Rapporteurs:** Marie Smith & Jennifer Veitch
15:00-15:45	Interactive Session 2 (part A): identification of priorities in ocean forecasting and applications	**Facilitators:** Enrique Alvarez, Lillian Diarra, Christo Whittle, Stewart Bernard **Rapporteurs:** Marie Smith & Jennifer Veitch

15:45-16:15	COFFEE/TEA BREAK	
16:15-17:00	Interactive Session 2 (part B): Plenary session to discuss results of the interactive session	**Facilitators:** Enrique Alvarez, Lillian Diarra, Christo Whittle, Stewart Bernard **Rapporteurs:** Marie Smith & Jennifer Veitch
	THURSDAY 10 APRIL	
09:00-10:00	Interactive Session 3 (part A): Identification of barriers in ocean forecasting and applications	**Facilitators:** Enrique Alvarez, Lillian Diarra, Christo Whittle, Stewart Bernard **Rapporteurs:** Marie Smith & Jennifer Veitch
10:00-10:30	Interactive Session 3 (part B): Plenary session to discuss results of the interactive session	**Facilitators:** Enrique Alvarez, Lillian Diarra, Christo Whittle, Stewart Bernard **Rapporteurs:** Marie Smith & Jennifer Veitch
10:30-11:00	**COFFEE/TEA BREAK**	
11:00-11:30	Interactive Session 4 (part A): Building an Impact and Feasibility Matrix on what can be achieved in OPERA	**Facilitators:** Enrique Alvarez, Lillian Diarra, Christo Whittle, Stewart Bernard **Rapporteurs:** Marie Smith & Jennifer Veitch
11:30:12:00	Interactive Session 4 (part B): Plenary session to discuss results of the interactive session	**Facilitators:** Enrique Alvarez, Lillian Diarra, Christo Whittle, Stewart Bernard **Rapporteurs:** Marie Smith & Jennifer Veitch
12.00-13:00	**Lunch**	
13:00-14:00	Session on ocean data platforms: • Vision of Africa Ocean Decade Roadmap for African Ocean Knowledge Hub & Existing data infrastructures in Africa • African Knowledge Platform • Offer from European Digital Twin Ocean	John Ngathi/ IOCAfrica Irene ANGELUCCETTI/ EC JRC (streamed online Dr. Marina Tonani/ Mercator Ocean International
14:00-14:30	Open discussion - OPERA contribution to Africa data hub	Moderated by Dr. Enrique Alvarez
14:30-15:00	OceanPrediction DCC African Regional Team in OPERA	Dr. Jennifer Veitch
15:00-15:30	**COFFEE BREAK**	
15:30-16:30	End with recap and next steps	Dr. Enrique Alvarez & Lillian Diarra

ANNEX 3: List of participants

Name	Position	Organisation	Country
Adom Derkye	Head, Marine Weather Forecasting & Numerical Weather Prediction Unit	Ghana Meteorological Agency	Ghana
Amina Makori	Research scientist - marine geology	Kenya Marine and Fisheries Research Institute (KMFRI)	Kenya
Aristide Aguia	Chef service Modélisation a la SODEXAM	Direction de la Météorologie Nationale (SODEXAM)	Cote d'Ivoire
Arshad Rawat	Director - Oceanography / Marine Geosciences Unit	Marine Geosciences Unit at Department for Continental Shelf and Maritime Zones Administration	Mauritius
Bernardino Joao Nhantumbo	Climate Researcher, and member of the WMO task force for the Southwest Indian Ocean	National Institute of Meteorology - INAM	Mozambique
Boris Polynice ANATO	Directeur de la Prévision et du Réseau d'Observation Météorologique	Agence Nationale de la Météorologie (METEO-BENIN)	Benin
Christo Peter Whittle	Marine Scientist/ GOOS Africa expert	Council for Scientific and Industrial Research	South Africa
Chuki Sangalugembe	Principal Meteorologist & Manager Marine Meteorological Services	Tanzania Meteorological Authority (TMA)	Tanzania
Daniel Quarshie	EO Service Development Expert	GMES & Africa / Regional Marine Centre	Ghana
Dunsin Abimbola Bolaji	Assistant Director Head of Fishing Technology and Marine Safety	Nigerian Institute of Oceanography and Marine Research (NIOMR)	Nigeria
Edward Akintoye Akinnigbagbe	Assistant Director, Marine Meteorology and Climate	Nigerian Institute of Oceanography and Marine Research (NIOMR)	Nigeria
Enrique Alvarez	OceanPrediction DCC Coordinator	Mercator Ocean International	France
Frederic Bonou	Physical Oceanographer/ Hydrological and Marine departememt	Institut-de-Recherches Halieutiques et Oceanologiques du Benin	Benin
Grégoire Abessalo Ondoa	Head of the Oceanography - Hydrography - Meteorology Engineering Department	University of Ebolowa	Cameroon
Ismaïla Ndour	Directeur du CRODT / ISRA	ISRA - Centre de Recherches Océanographiques de Dakar-Thiaroye (CRODT)	Senegal
Issufo Halo	Marine Scientist	Department of Forestry, Fisheries and the Environment	South Africa
James Mbugua	GIS expert	Coastal Oceans Research and Development in the Indian Ocean (CORDIO East Africa)	Kenya
Jennifer Veitch	Head of the Sustainable Ocean Modelling Initiative: a South African Approach and	South African Environmental Observation Network (SAEON)	South Africa

	Co-chair of OceanPrediction DCC African Regional Team		
John Ngatia Ndarathi	Programme Assistant	UNESCO-IOC Sub-Commission for Africa and Adjacent Island States	Kenya
Justin Ahanhanzo	Senior Expert	GOOS Africa	Benin
Kouadio Affian	Chair of IOC Africa, Chair of OceanPrediction DCC African Regional Team	Université Félix-Houphouët-Boigny	Cote d'Ivoire
Kwame A. Koranteng	Senior Ocean Expert	Ocean Decade Africa Taskforce	Ghana
Kwame Adu Agyekum	Coordinator of the MarCNoWA consortium	University of Ghana	Ghana
Lillian Diarra	OPERA Project Manager	Mercator Ocean International	France
Marie Smith	Senior Researcher	MarCOSIO Consortium/ Council for Scientific and Industrial Research	South Africa
Marina Tonani	EDITO Project Manager	Mercator Ocean International	France
Marjolaine Krug	Senior Scientific Advisor: Oceans and Coastal Information Management System	Department of Forestry, Fisheries and the Environment	South Africa
Mary-Jane Bopape	SAEON Managing Director	South African Environmental Observation Network (SAEON)	South Africa
Mthuthuzeli Gulekana	Science Manager	Department of Forestry Fisheries and the Environment	South Africa
Otobou Gnagne Dominique Yamba	Research scientist	Direction de la Météorologie Nationale (SODEXAM)	Cote d'Ivoire
Phillip Okello Ochien'g	Principal Meteorologist	Kenya Meteorological Department - Marine Meteorology Division	Kenya
Ramontsheng Rapolaki	Senior Manager – Marine	South African Weather Services	South Africa
Sives Govender	MarCOSIO coordinator	Council for Scientific and Industrial Research	South Africa
Stephason Kotomangazafy	Director of Research and Development	Meteo Madagascar	Madagascar
Stewart Bernard	Consultant	University of Cape Town	South Africa