

**Response by the OSPAR Commission to the request pursuant to General Assembly resolution 76/72 of 9 December 2021, entitled “Oceans and Law of the Sea”, for an OSPAR contribution on “Ocean Observing” to the 22<sup>nd</sup> meeting of the United Nations Open-ended Informal Consultative Process on Oceans and the Law of the Sea.**

## **Introduction**

The OSPAR Convention is the legal instrument guiding international cooperation on the **protection of the marine environment of the North-East Atlantic** (NEA). The activities and work under the Convention are managed by the OSPAR Commission, which is composed of fifteen Governments<sup>1</sup> and the European Commission, on behalf of the European Union (EU). The OSPAR Commission is a Regional Seas Convention which aims to cooperate towards the protection of the NEA marine environment and the sustainable use of its resources.

## **Ocean observation**

Monitoring and assessment based on ocean observations are well-established functions of the OSPAR Commission and are used to inform and guide actions to protect the marine environment of the North-East Atlantic. The results of monitoring and assessment are used to produce assessments of the OSPAR Maritime Area, such as the OSPAR [Intermediate Assessment 2017](#) and [OSPAR’s Quality Status Reports](#), the next of which is due to be published in 2023. OSPAR’s Joint Monitoring and Assessment Programme (JAMP) sets out a commitment of collaborative data collection and analysis which covers: ocean acidification, biodiversity and ecosystems, eutrophication, hazard substances, offshore oil and gas industries and radioactive substances analysis, while the [Coordinated Environmental Monitoring Programme](#) (CEMP) aims to ensure that data delivered from across the OSPAR Maritime Area is comparable.

OSPAR’s goal is that through its data (OSPAR Data and Information Management System, [ODIMS](#)) and assessment portals (OSPAR Assessment Portal, [OAP](#)), all OSPAR data and information:

- a) can be used with confidence as an evidence base to support the on-going work of the OSPAR Commission in managing the marine environment;
- b) is findable, accessible, interoperable and reusable by all who require it in a format and standard that maximises the possibility for data reuse;
- c) is integrated and interoperable with wider systems with minimal human interaction; and
- d) ensures, through data availability, that repetition of data collection and entry is not necessary.

Underpinning this is a desire to ensure that OSPAR’s experience, knowledge and methods are shared as widely as possible to help capacity development, avoid unnecessary duplication of efforts and strengthen collaboration and coordination at all levels as well as ensuring that high quality data products are created.

For example, a set of common indicators have been developed as stable, long-term assessment tools that bring together contributions from a range of different institutes and countries to produce regional- or sub-regional assessments. The OSPAR process often begins with a single-research/project idea that is then developed, bottom-up, through a process of review, consultation and constructive

---

<sup>1</sup> Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

challenge into products that are adopted as regional products at a policy level. All elements of the common indicators, including details of the monitoring programmes, their temporal and spatial scope, methodologies and protocols are available through the relevant CEMP guidelines.

In addition to these common indicators, OSPAR also has a series of other data streams that provide the basis to long-term, regular assessment outputs.

Where possible and relevant, OSPAR's assessment and monitoring efforts are aligned with the needs of the EU's Marine Strategy Framework Directive (MSFD) and there are on-going discussions with other Regional Seas Conventions to explore if common indicator outputs could be used at a global level to make the assessment protocols and results available, for example as a contribution towards the Convention on Biodiversity's post-2020 Global Biodiversity Framework and the implementation of Agenda 2030. OSPAR assessment and monitoring outputs will also contribute to the United Nations Decades of Ocean Science for Sustainable Development and on Ecosystem Restoration.

### **Types of ocean observation tools and their existing and potential contributions to science-based decision-making**

As mentioned above, OSPAR's work on monitoring and assessment is freely accessible via the OSPAR website and data portals. The purpose of all OSPAR assessments is to ensure that any measures or actions are based on the best available scientific evidence. As well as traditional ocean observation tools and methods, OSPAR also uses proxy-information to inform status assessments. A good example of this is the use of Vessel Monitoring System (VMS) data on bottom trawling fishing activities used to develop spatial information and analysis of the intensity of disturbance caused by the activity that are then considered to inform benthic habitat indicator assessments.

To improve understanding of the role of the ocean in relation to the climate, and blue carbon initiatives, OSPAR's new [North-East Atlantic Environment Strategy \(NEAES\)](#) 2030 includes a new Theme on "achieving seas that are resilient to the impacts of climate change and ocean acidification". Under this Theme OSPAR will take action to raise awareness of climate change and ocean acidification through increased monitoring and assessment and contribute to efforts to mitigate the effects of climate change and ocean acidification. This will include actions to safeguard the marine environment's role as a natural carbon store and developing regional approaches to nature-based solutions for carbon storage to protect and restore relevant carbon sequestration and storage habitats, such as seagrass beds, kelp forests and saltmarshes.

### **Challenges in ocean observation**

Much of OSPAR's efforts are focussed on facilitating data sharing, compatibility and comparability. Operating at a regional level brings its own, obvious, challenges. OSPAR works on a consensus basis and while this can mean that securing agreement can take longer, once agreed, methods and protocols tend to be well supported and adhered to. The systems OSPAR has put in place (e.g. ODIMS) follow requirements such the FAIR Guiding Principles<sup>2</sup> and the EU's INSPIRE Directive<sup>3</sup> and, as set out above, provide a completely open one-stop-shop for data storage and access but do require significant resources to establish and maintain.

---

<sup>2</sup> FAIR Guiding Principles for scientific data management and stewardship.

<sup>3</sup> INSPIRE Directive, establishing an infrastructure for spatial information in Europe to support Community environmental policies, and policies or activities which may have an impact on the environment.

Some of the bigger challenges in terms of gaps in knowledge are around climate change, cumulative impacts and observations in areas where human activity is limited such as the open ocean deep-sea ecosystems. Having the capacity and resources to join and contribute to regional and global ocean observation initiatives is an on-going challenge.

**Opportunities to expand and strengthen global ocean observation (cooperation, coordination and collaboration)**

Opportunities to expand and strengthen global ocean observation including through cooperation, coordination and collaboration for an organisation like OSPAR are closely linked to the priorities set by our Contracting Parties and available resources.

Having established the ODIMS and OAP portals and that implement Creative Commons Zero and Creative Commons BY respectively, OSPAR is in a good position to share its experiences of setting these systems up and any lessons learned to help build capacity in other regions. By doing so it can help limit the development of data silos, maximise reuse and limit duplication.

One of the strengths of OSPAR's work, is the involvement of observer organisations, whether from other intergovernmental organisations, industry or environmental non-governmental organisations. Their engagement helps to increase access to a wider range of ocean observation tools and provides important scrutiny and assurance to OSPAR's work.

Availability of resources is a key constraint on what is and isn't possible. Sharing of knowledge, information and experiences can be a useful mechanism to help ensure the most efficient and effective use of resources. OSPAR is in the process of producing its Quality Status Report 2023 (QSR 2023), which will provide a comprehensive, fully accessible and up-to-date assessment of the status of the North-East Atlantic for the period 2009-2021. The QSR 2023 aims to increase our knowledge and understanding of the marine environment through OSPAR's monitoring and assessment processes. It will look at both the current state of the marine environment and ecosystems, at human activities benefiting from the marine environment and interacting with it and identify gaps in our knowledge as well as the effect that OSPAR measures are having and identify areas for future priority action.

Through the QSR 2023, OSPAR will contribute to ocean knowledge generation, help improve our understanding of the ocean system and pave the way for the development of science-based solutions to achieve the UN 2030 Agenda. OSPAR is seizing the opportunity of collaboration and cooperation offered by the United Nations Decades of Ocean Science for Sustainable Development and on Ecosystem Restoration. OSPAR is currently working with UNESCO-IOC to request the endorsement of the QSR 2023 as a Decade Action that will contribute to the Ocean Decade vision. With this, the underlying data, main findings and methodologies of the QSR 2023 will be widely promoted and shared openly with the international ocean community.