

IMPACT REPORT

Big Data in Marine Science

EMB Future Science Brief 6, April 2020



The Big Data in Marine Science Working Group kicked off on 10th May 2019 at the EMB offices in Ostend, Belgium. The launch and dissemination of the document took place primarily online due to the COVID-19 lockdowns in 2020. The document was launched during a webinar on 29th April 2020 which was attended by over 400 participants from the scientific and policy communities. Recordings of the four talks during the webinar were made available on the [EMB YouTube channel](#) and have received a total of 730 views.

The 7th EMB Forum was held on 23rd October 2020 as an online event on the topic of Big Data in Marine Science to support the European Green Deal, EU Biodiversity Strategy and the Digital Twin Ocean. The Future Science Brief served as inspiration for the sessions and the discussions. The Forum was attended by 192 participants and the proceedings were published in early 2021. The Future Science Brief was promoted at various other events including the European Space Agency's Digital Twin Ocean workshop (October 2020), the Integrated Carbon Observing System conference (September 2020), the International Council for the Exploration of the Sea's WGMLEARN meeting (April 2021), and the Virtual Early Career Ocean Professionals day panel discussion on "Why do we need FAIR data to reach our Ocean goals" led by EMB Young Ambassador Natalija Dunić.

The Future Science Brief has been widely cited in the scientific literature in response to the growing interest in Big Data and Artificial Intelligence for marine research in the past years, and it has been referred to in the Baltic and North Sea Strategic Research and Innovation Agenda (BANOS SRIA) 2021. The recommendations from the document are also reflected in the Horizon Europe call for a European Digital Twin of the Ocean, and other related calls.

Infographics conveying key messages and recommendations from the document were developed by graphic design students at the Artevelde Hogeschool in Ghent, Belgium. These infographics have been used widely on social media, as well as in teaching as part of the Physical Oceanography Master course at the Université de Bretagne Occidentale (UBO).

"This report shows how important it is to give 'Big Data' a purpose, a face and a soul if we want them to deliver the many different solutions needed by policy makers, navigators, oceanographers, fishermen, academics, the private sector, researchers, engineers and technicians, NGOs, or young people"

- **Sigi Gruber**, Former Head of Healthy Ocean and Seas Unit, DG RTD, European Commission

"All marine scientists understand the need for reliable, interoperable data and tools to analyse these but it is sometimes difficult to get the message across to those not directly involved. This timely well-written publication with well-chosen examples, helps to explain the importance to them. It shows the need for cooperation between institutions in different countries and the crucial role of the European Union in forging this cooperation through enhanced communication, joint projects, common standards and shared digital infrastructure. We, in the European Commission's Directorate General for Maritime Affairs will continue to give priority to facilitating the use of Big Data in marine science"

- **Andreea Strachinescu**, Head of Unit, Maritime Innovation, Marine Knowledge and Investments, DG MARE, European Commission

"We are currently experiencing something new and disruptive that will change the face of marine knowledge and decision making for coming decades even if this is still fuzzy and complex to integrate now. Your document is key to navigate through these complexities and opportunities"

- **Fabienne Jacq**, Programme Officer, DG DEFIS

DISSEMINATION IN NUMBERS

These statistics are for EMB Future Science Brief No. 6 on Big Data in Marine Science

Data collected from (April 2020 to September 2022)

75 TWEETS
From the EMB Twitter account and other accounts

17 NEWS ARTICLES
By EMB and others highlight the Future Science Brief

16 CITATIONS
In peer-reviewed articles and other publications

20 INSTAGRAM POSTS
From the EMB Instagram account

14 EVENTS
With presentations focusing on the Future Science Brief and its recommendations

3 REPOSITORIES
Have the Future Science Brief available for open access download (Zenodo, ResearchGate & VLIZ IMIS)

2,013
Of videos referring to the Future Science Brief

1,525
From the EMB website, ResearchGate and other sources

202
Of the Future Science Brief disseminated

8,284
To the various relevant pages on the EMB website

