



INTERNATIONAL DATA WEEK

13-16 October 2025
Brisbane, Australia



HOSTED BY



ARDC is
enabled
by NCRIS



OUR PARTNERS

BUSINESS EVENTS AUSTRALIA



idw2025.org

Session 6: The Transformative Role of Data in SDGs and Disaster Resilience

Chiara Altobelli

National Institute of Oceanography and Applied
Geophysics – OGS (Italy)

[Date]
Brisbane, 2025





Acknowledgement of Country

I would like to begin by acknowledging the Traditional Owners (the Turrbal and Yuggera Peoples) of the land that we're meeting on today in Brisbane/ Meanjin and pay my respect to their Elders past and present.



SciDataCon 2025



**INTERNATIONAL
DATA WEEK**
13-16 October 2025
Brisbane, Australia

Marine knowledge value chain: How the European Marine Observation and Data Network supports international marine policy against marine pollution.

SciDataCon 2025



**INTERNATIONAL
DATA WEEK**
13-16 October 2025
Brisbane, Australia



EMODnet
SERVICE OFFER

EMODnet offers marine data derived from *in situ* ocean observations of the state and dynamics of oceans and marine organisms, together with data on human activities at sea. The offer spans the coast to open ocean and the surface to the seafloor.

7 THEMATICS

- BATHYMETRY
- BIOLOGY
- CHEMISTRY
- GEOLOGY
- HUMAN ACTIVITIES
- PHYSICS
- SEABED HABITATS

EMODnet
European Marine Observation and Data Network
emodnet.ec.europa.eu

EMODnet's open and free marine knowledge is offered at pan-European scale. EMODnet serves diverse users, providing the evidence-base to support EU Policy implementation

EU-funded since 2009 with a vision to 2035

+ 120 organisations

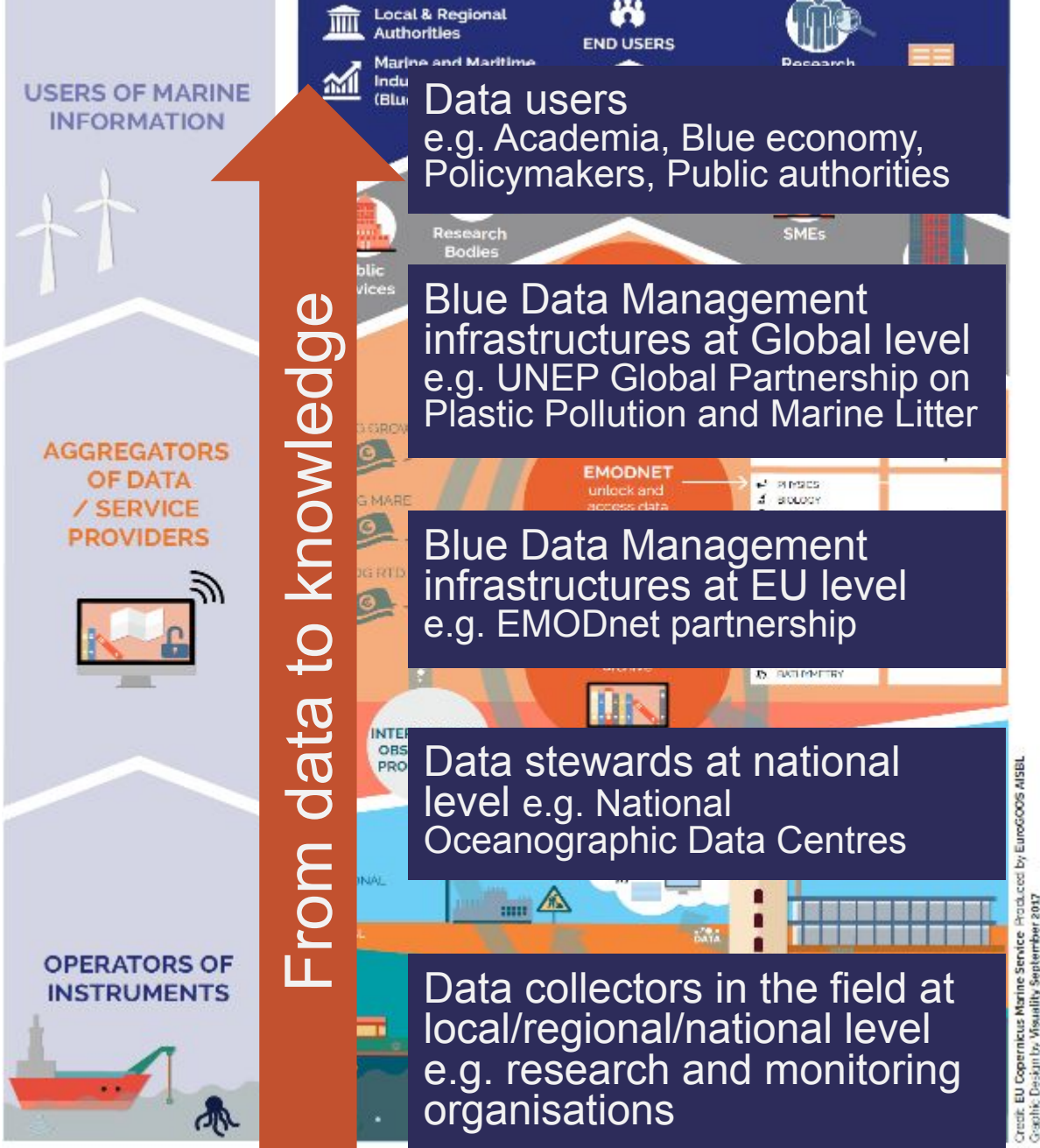
SciDataCon 2025



INTERNATIONAL DATA WEEK
13-16 October 2025
Brisbane, Australia

EMODnet
Service offer





EMODnet: a link in the marine knowledge value chain

SciDataCon 2025



**INTERNATIONAL
DATA WEEK**
13-16 October 2025
Brisbane, Australia

EMODnet Chemistry workflow:

Tasks and responsibilities

Providing Data from monitoring/
research/Industry/citizen science

Data originators

Gathering & validating data
at national level

Network of Data stewards

Standardising &
validating data at
regional level

Regional Coordinators

Producing & Publishing
HQ data and maps

Regional coordinators
and Data scientists

Liasing with main
stakeholders

Scientific communicators,
Data scientists

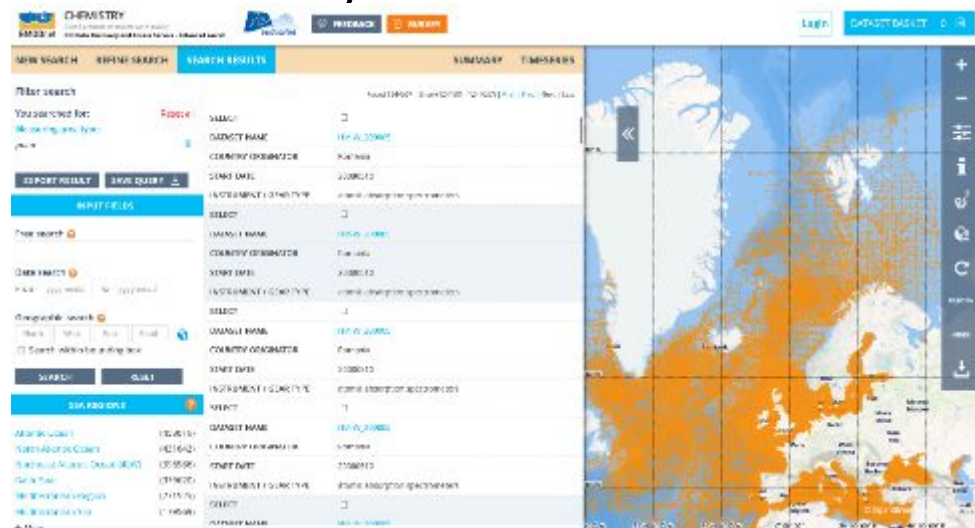
SciDataCon 2025



**INTERNATIONAL
DATA WEEK**
13-16 October 2025
Brisbane, Australia

EMODnet Chemistry services

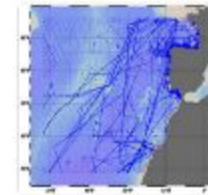
Data Discovery and access service



Products Catalogue service

Categories

North East Atlantic Ocean - Eutrophication and Acidity aggregated datasets...

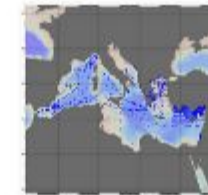


EMODnet Chemistry aims to provide access to marine chemistry datasets and derived data products concerning eutrophication, acidity and contaminants. The importance of the selected substances and other parameters relates to the Marine Strategy Framework Directive (MSFD). This aggregated dataset contains all unrestricted.

National Institute of Oceanography and Applied Geophysic...

Categories

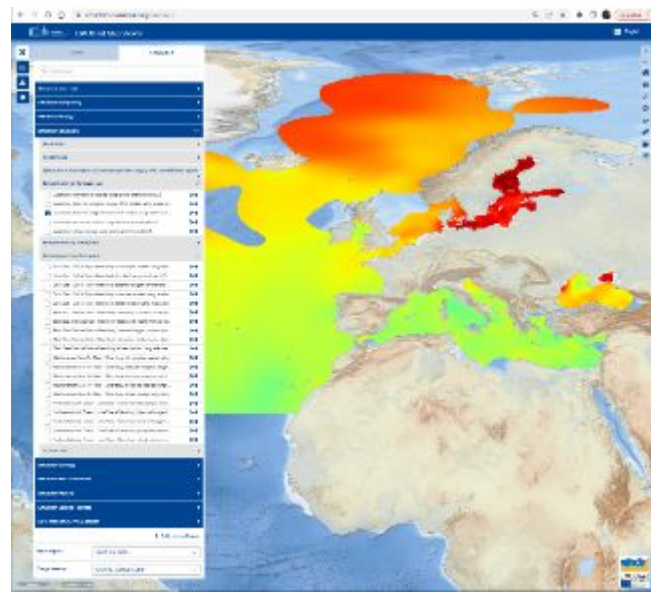
Mediterranean Sea - Contaminants aggregated datasets 1971/2022 v2024



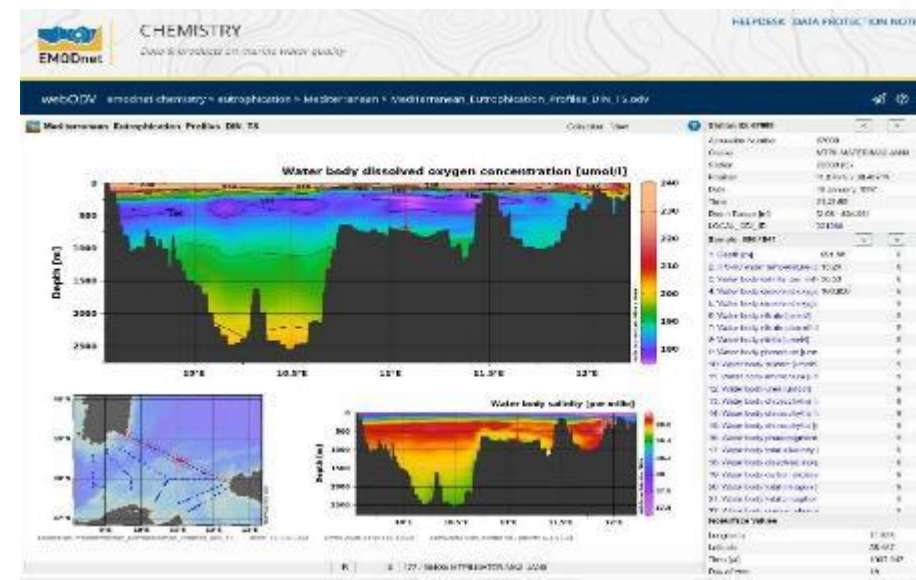
EMODnet Chemistry aims to provide access to marine chemistry data sets and derived data products concerning eutrophication, ocean acidification and contaminants. The chemicals chosen EMODnet Chemistry aims to provide access to marine chemistry datasets and derived data products concerning eutrophication, acidity...

Hellenic Centre for Marine Research, Hellenic National Oc...

Map Viewer service



Data Explorer and Extractor service

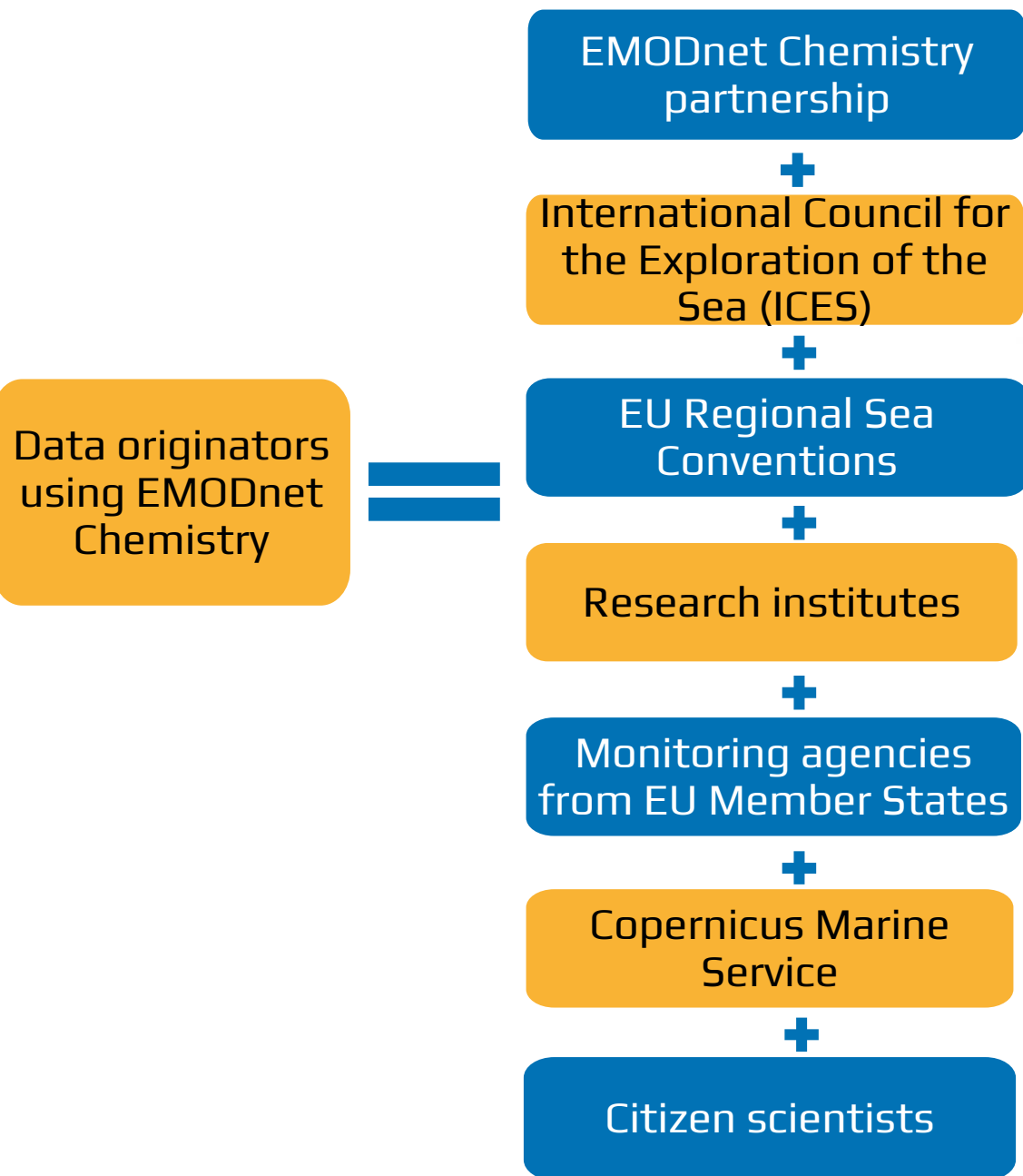


SciDataCon 2025



**INTERNATIONAL
DATA WEEK**
13-16 October 2025
Brisbane, Australia

EMODnet Chemistry use cases



EMODnet Chemistry use cases
at
<https://emodnet.ec.europa.eu/en/use-cases>

SciDataCon 2025



**INTERNATIONAL
DATA WEEK**
13-16 October 2025
Brisbane, Australia

EMODnet Chemistry used by data originators

EMODnet Chemistry partnership



International Council for the Exploration of the Sea (ICES)



SciDataCon 2025



**INTERNATIONAL
DATA WEEK**
13-16 October 2025
Brisbane, Australia

26 Oct 2022

EMODnet Chemistry: the gateway to HELCOM beach litter data

In 2021, the Helsinki Commission (HELCOM) chose EMODnet Chemistry as the web-based platform to manage Baltic Sea data on beach litter for the 'State of the Baltic Sea' holistic assessment report (HOLAS) purposes. Since then EMODnet Chemistry has ingested, harmonised and validated data that had been collected from 2016 to 2021 on 141 beaches in 9 countries.

GOVERNMENT/PUBLIC ADMINISTRATION

EU Regional Sea
Conventions



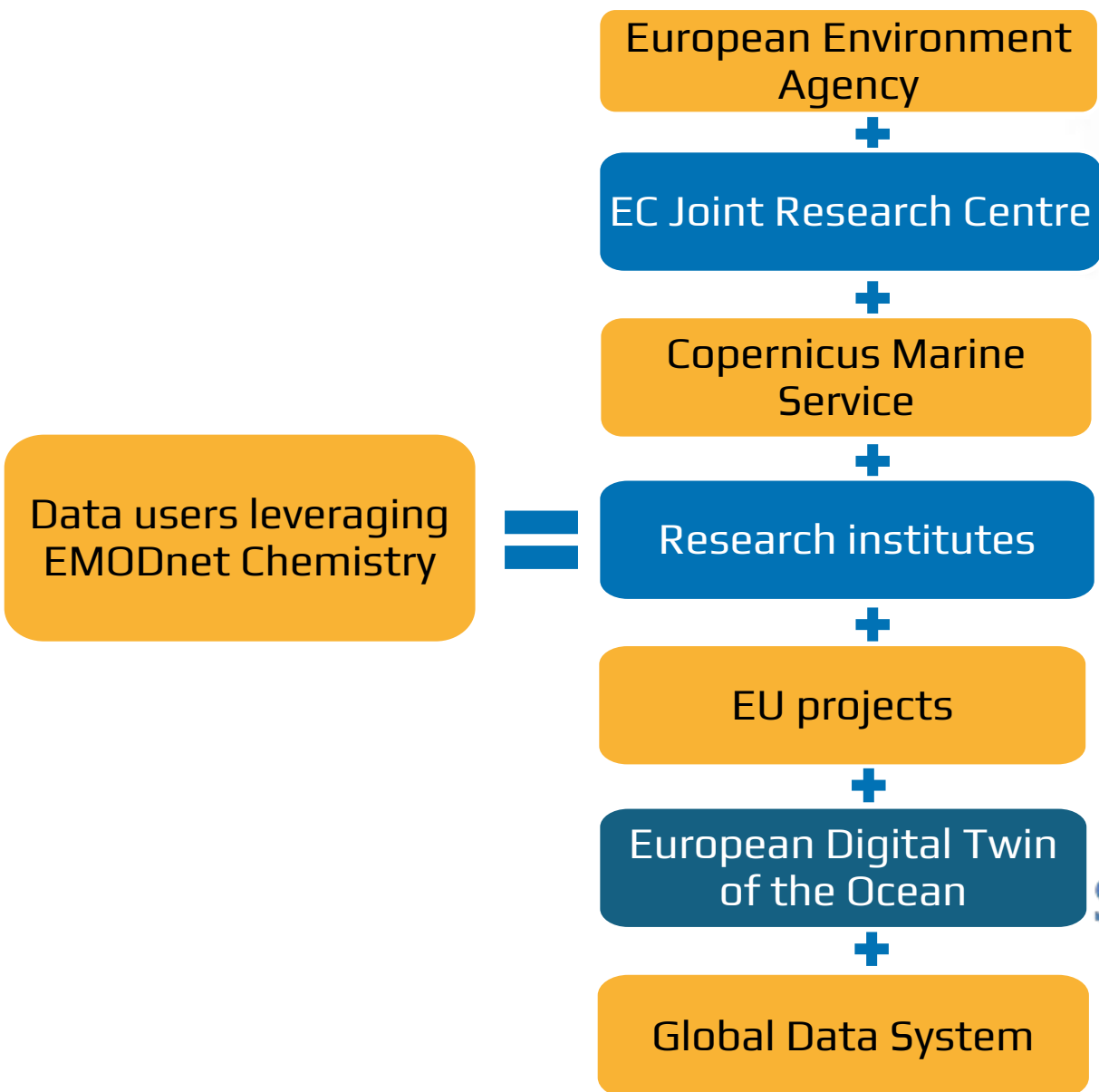
Majority of samples taken during Volvo Ocean Race contain microplastics, new data reveals

by Volvo Ocean Race 28 Jun 2018 12:47 UTC



Citizen scientists

EMODnet Chemistry use cases



EMODnet Chemistry use cases
at
<https://emodnet.ec.europa.eu/en/use-cases>

SciDataCon 2025



**INTERNATIONAL
DATA WEEK**
13-16 October 2025
Brisbane, Australia

EMODnet Chemistry supporting data users

SciDataCon 2025



European Environment Agency



EC Joint Research Centre



Copernicus Marine Service



Research institutes



EU projects



European Digital Twin of the Ocean



Global Data System

ICES and EMODnet Chemistry providing a comprehensive European data source for the European Environment Agency

EMODnet Chemistry: a point of reference for management of marine litter data in the context of the EU Marine Strategy Framework Directive

EMODnet Chemistry Datasets provide high quality harmonised and integrated data to the Copernicus Marine Service Thematic Assembly Centre products

Eutrophication climatology to decipher the consequences of climate change in the Adriatic Sea

A simple dashboard for visualising trends in oxygen and nitrate concentrations

EMODnet Chemistry and Copernicus Marine Service provides the data backbone for the European Digital Twin of the Ocean

EMODnet Chemistry is the EU contribution to the global data systems (e.g. UNEP Global Partnership on Plastic Pollution and Marine Litter)

Harmonised, standardised and validated data collections on eutrophication and chemical pollution for the EU Marine Strategy Framework Directive.

An integrative tool for the assessment of eutrophication status at the sub-basin level in the Mediterranean region

EMODnet Marine litter data used to develop and test the first Marine Litter Assessment Tool

EMODnet Chemistry and Blue Cloud 2026 project: a win-win interaction



**INTERNATIONAL
DATA WEEK**
13-16 October 2025
Brisbane, Australia

EMODnet Chemistry

The role of Data in EU policy

DIRECTIVES

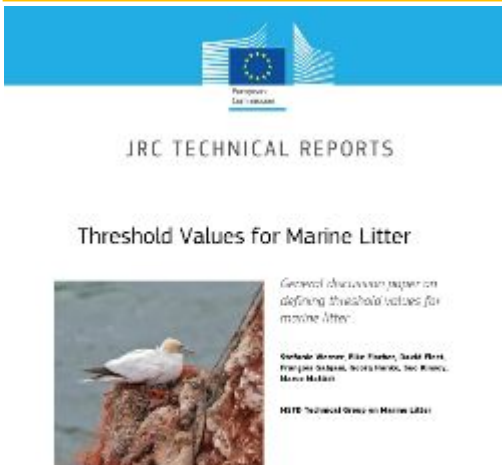
DIRECTIVE (EU) 2019/904 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 5 June 2019
on the reduction of the impact of certain plastic products on the environment

EC celebrating EMODnet
contribution to the adoption of
the EU Directive to reduce the
“Single Use Plastics”



2018

2019



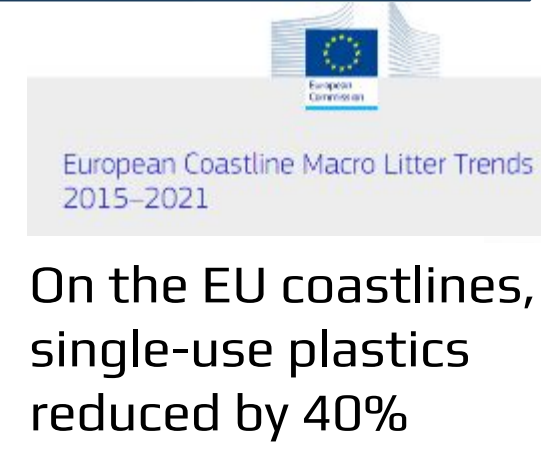
2020



2021



2022-2023



2024

On the EU coastlines,
single-use plastics
reduced by 40%

EMODnet Chemistry

Call to action for improving the **EU** marine knowledge value chain

For the Ocean Mission (EMODnet Chemistry's point of view)

=> **Strengthen the link between data stewardship and both research and monitoring programmes** to improve the availability of FAIR data.

For the Climate Mission (European Climate Risk Assessment, EEA report 01/2024)

=> Although national data-based climate risk assessments are increasingly used to establish adaptation policy, **societal preparedness is still low**, as **policy implementation is lagging behind** quickly-increasing risk levels.

SciDataCon 2025



**INTERNATIONAL
DATA WEEK**
13-16 October 2025
Brisbane, Australia

EMODnet Chemistry

Call to action for improving the **global** marine knowledge value chain

For the Climate Mission at global level (Intergovernmental Panel on Climate Change, 2023: Summary for Policymakers of the Sixth Assessment report)

=> **Scientific understanding underpins the key findings, which are "statements of fact"** about a) current status and trends, b) current and future risks, c) **responsibility: human activities**, d) short and long-term responses.

=> **Mitigation and adaptation are urgently needed, but NO SENSE OF URGENCY** leads to

=> Insufficient resources and political commitment to support a) research, b) low-emission technologies c) climate literacy.

=> Public and private **financial flows for fossil fuels are still greater** than those for climate change adaptation and mitigation.

SciDataCon 2025



**INTERNATIONAL
DATA WEEK**
13-16 October 2025
Brisbane, Australia



EMODnet



European Marine
Observation and
Data Network

emodnet.ec.europa.eu

Stay up-to-date with
the latest news





SciDataCon 2025



**INTERNATIONAL
DATA WEEK**
13-16 October 2025
Brisbane, Australia