



In situ

# Cross-cutting coordination of Copernicus' in-situ data activities – COINS activities

Henrik Steen Andersen  
European Environment Agency



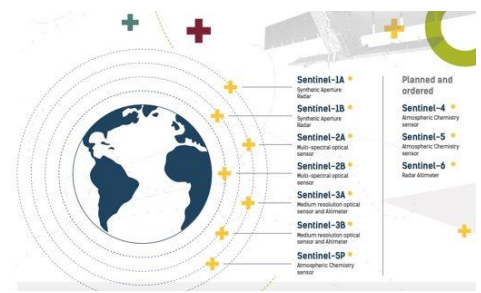


# The Copernicus In Situ Component

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## Copernicus programme level requirements

- The **Copernicus free and open data policy** highlights the need for minimising in situ data use restrictions;
- The **operational and long-term nature of Copernicus** underlines the need for the sustainable and reliable essential observing systems.



The Copernicus Services require in situ data to produce and validate their products.

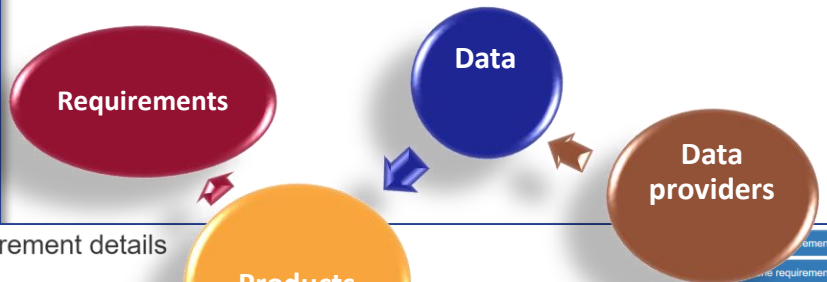
The Copernicus Space Component requires in situ data for calibration and validation of Sentinel observations.



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## The Copernicus In Situ Component Information System

Name	Dissemination	Quality Control Procedure	Group	Uncertainty	Update Frequency	Timeliness	Scale	Horizontal resolution	Vertical resolution	State
Bathymetry	Offline	Manual	Ocean	1m 0,5m 0,1m	10years 5years 1year	1year 1year 1year		100km 50 km 2km	10 m 5m 1m	draft
Chlorophyll	NRT Service	Automatic	Ocean	30% 10% 5%	90d 30d 7d	7d 3d 1 d		500 km 400 km 300 km	10m 5m 1m	draft
Greenland Ice Sheet Mass Change	Offline	Manual	Ocean		5y 1y 1m	1y 6m 3m		8 areas each terminal glacier each terminal glacier		draft
Inorganic carbon (DIC, TA, pCO2, pH)	NRT Service	Automatic	Ocean	30% 10% 5%	90 d 30 d 7d	7d 3d 1d		500 km 400 km 300 km		
Nutrients	NRT Service	Automatic	Ocean	25% 10% 10%	90d 30d 7d	7d 3d 1d		500km 400 km 300 km		
Oxygen	NRT Service	Automatic	Ocean	25% 10% 10%	90d 30d 7d	7d 3d 1d		500km 400km 300km		



### Requirement details

**Products**

**Gaps**

Name			
Note			
Dissemination	Automatic		
Quality Control	Automatic		
Group	Ocean		
Status	-		
Uncertainty	0,1K	0,05K	0,05K
Update Frequency	7d	3d	1d
Timeliness	3d	2 d	1d
Scale			
Horizontal resolution	500km	400km	300km
Vertical resolution			
Owner	GOOS, EuroGOOS		
State	Draft		
Created by	Erik Buch, erik.buch@eurogoos.eu		

Mark as ready



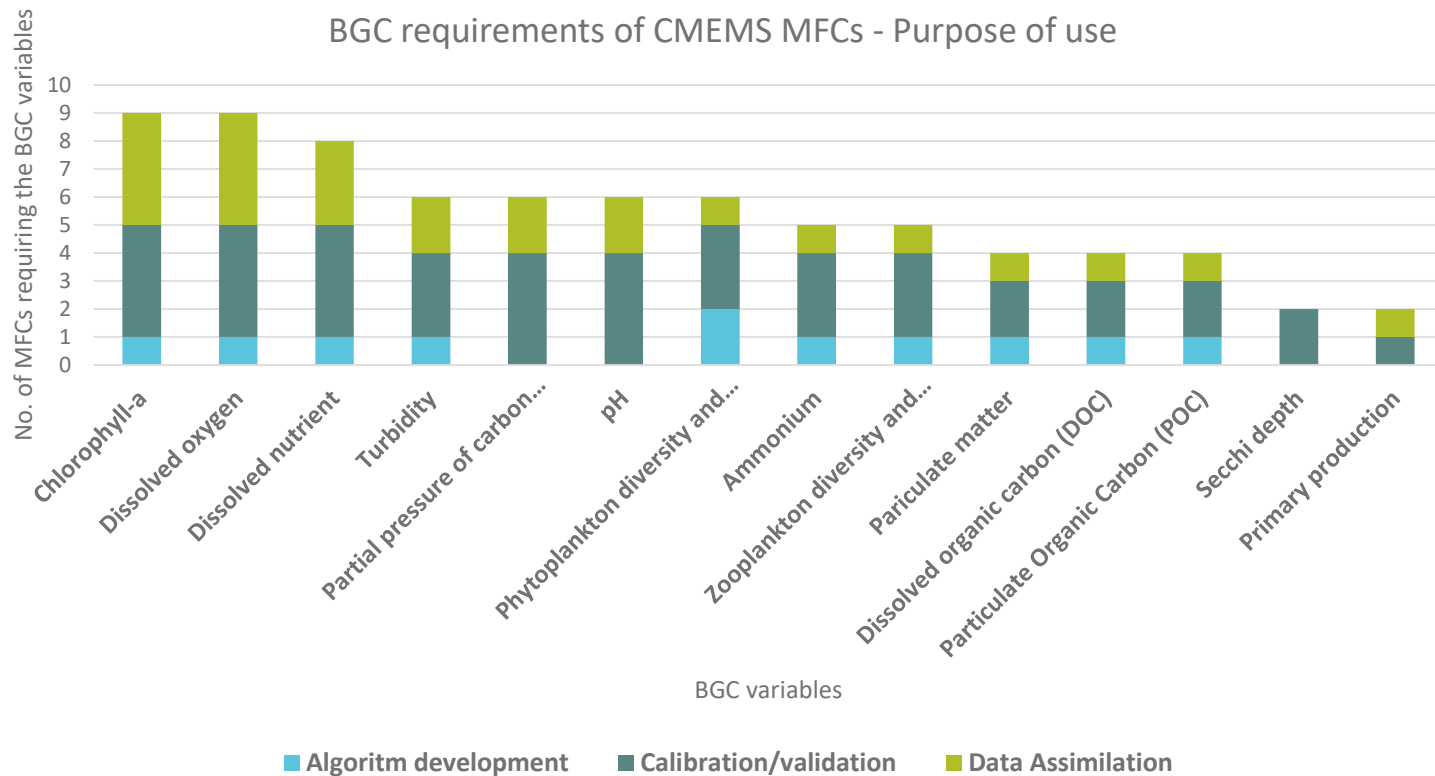
In cooperation with CMEMS

The COINS Consortium



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# Detailed Analysis of Coastal Data Needs





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# Coastal Zone Data Needs – Focus on Spain

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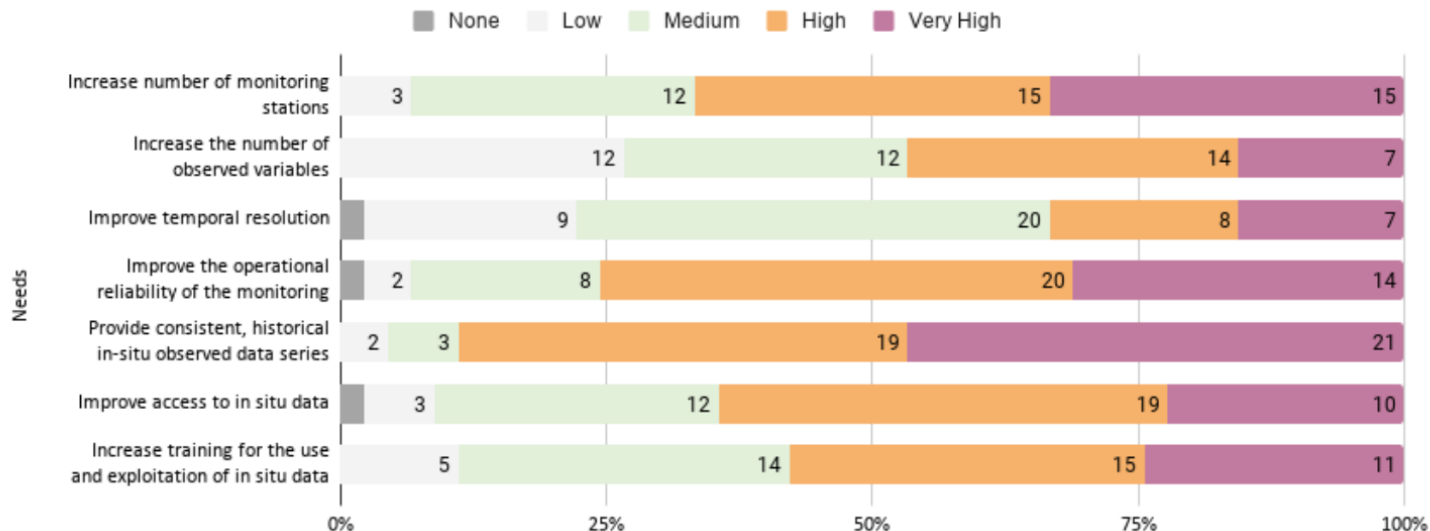


Figure 9. Degree of need identified by end users for the in situ component



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# Actions, Reports, & Awareness Raising



- Copernicus' requirements for coastal BGC data; ★
- Inventory of existing European Biogeochemical observations; ★
- Inventory of coastal sea level stations; ★
- Sustainability survey;
- Reprocessing of Argos and Iridium drifters;
- Data services in the coastal zone - a Spanish perspective;
- State of Play and awareness raising. ★



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Thank you for your  
attention

