

Carbon Gap – Call for Evidence on the European Observation Initiative

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Carbon Gap* is an independent non-profit working to make Europe a global leader in carbon dioxide removal (CDR). We see a strong need for strengthening Europe's ocean observation capacity, especially when it comes to marine carbon dioxide removal (mCDR)

The ocean represents a [critical and still under-developed pillar of the EU's carbon removal strategy](#). Europe is particularly well placed to lead on marine CDR, given its favourable geography, strong research base, and existing maritime infrastructure**. But doing so will require timely and targeted policy support to address the key scientific, environmental, and scaling uncertainties that remain. In this context, the Ocean Observation Initiative (OOI) has the potential to advance knowledge of marine CDR through three main actions:

1. Consider mCDR-specific ocean observation and MRV

Robust ocean observation and monitoring systems are a prerequisite for any responsible approach to mCDR. Robust MRV remains a challenge, and without it, mCDR cannot be credibly integrated into EU climate targets or markets. The European Ocean Observation System is therefore highly relevant for mCDR.

The OOI should ensure that emerging climate-relevant uses of the ocean, including mCDR, are explicitly considered within ocean observation governance. This includes supporting data collection, modelling, monitoring capacities, and improving the engineering systems, like autonomous monitoring platforms and sampling profiles for collecting measurements needed to inform and support the development of methodologies under the CRCF.

2. Europe-specific data is needed to further advance the knowledge on mCDR

The efficiency and impact of different marine CDR methods can vary across regions. Europe-specific data is therefore essential to advance knowledge on mCDR and to assess both environmental risks and carbon removal potential in a context-sensitive manner. In the absence of such data, the EU risks either stalling deployment due to uncertainty or moving ahead in sub-optimal regions, increasing environmental risks and undermining the credibility of these approaches

The OOI should support the creation of high-quality, European-specific datasets that help unlock innovation while ensuring that any future development of mCDR is grounded in precaution, scientific evidence, and ecosystem protection.

3. Strengthening research and innovation support

Key scientific questions remain open for mCDR, while EU research and innovation funding is fragmented and insufficient to address these challenges in a timely manner. Without a more

coordinated R&I framework, the EU risks falling behind in generating the evidence base needed to develop these methods.

The OOI is intended to drive international scientific cooperation and deliver, inter alia, a blueprint mapping knowledge gaps by June 2026. It is critical that this blueprint, together with the forthcoming EU Ocean R&I Strategy, supports the development of a dedicated mCDR research and innovation agenda, leveraging the FP10 and formulating recommendations for national funding schemes with clear milestones linked to monitoring, reporting and verification (MRV) and certification needs under the CRCF. This would help ensure that policy, science, and funding evolve in a coordinated and mutually reinforcing way.

Carbon Gap encourages the Commission to ensure that the EU OOI provides a coherent, precautionary and science-led foundation for studying and assessing the potential of mCDR, while safeguarding marine ecosystems and supporting the EU's long-term climate objectives.

*See <https://carbongap.org/>

**See <https://carbongap.org/harnessing-the-ocean-marine-cdr-is-an-opportunity-for-eu-climate-action/>