



# Open Data Policy

Version	Changes	Author(s)		Reviewer(s)		Authorized	
2.0	Data Policy	07/02/2025	Raquel Suárez	10/01/2025	María Diaz	10/01/2025	Joaquin Hernández Brito
1.0	Data Policy	16/04/2020	Eric Delory, Tania Morales, Josefina Loustau			24/04/2020	Joaquin Hernández Brito

## 1. Introduction

The Oceanic Platform of the Canary Islands (PLOCAN) is a Singular Scientific and Technological Infrastructure (ICTS) focused on fostering open and collaborative marine research. This Open Data Policy formalizes PLOCAN's commitment to making its oceanographic and environmental data publicly available, ensuring broad access and responsible reuse. This policy aligns with European and international regulations, including the INSPIRE Directive and the FAIR principles (Findable, Accessible, Interoperable, Reusable). It is further aligned with UNESCO, the European Union (EU), the European Open Science Cloud (EOSC), the Spanish 2023-2027 National Open Science Strategy, and the European Directive on Open Data and the Re-use of Public Sector Information (Directive (EU) 2019/1024). By releasing its data under transparent and standardized processes, PLOCAN seeks to maximize their value for research, education, industry, and the wider community.

PLOCAN has a long-standing practice of freely sharing real-time and historical meteo-oceanographic observations on its website. This policy consolidates those efforts by establishing official guidelines that reflect best practices in data management, from the initial acquisition at sea to long-term archival in specialized repositories. It also adheres to legal obligations at European and national levels, such as the EU Open Data Directive, ensuring that PLOCAN's procedures meet current scientific and regulatory standards.

## 2. Objectives

- Ensure Access and Reusability: Provide free and barrier-free public access to data collected at PLOCAN, adopting clear licensing that promotes any lawful type of reuse, including scientific research, educational activities, and commercial ventures.
- Achieve Interoperability: Employ standardized data formats, metadata conventions, and exchange protocols so that PLOCAN's datasets can integrate seamlessly into larger networks, such as European and international marine observatories or open science clouds.
- Advance Open Science and Transparency: Encourage an open research environment in marine science, enabling reproducibility of findings and fostering innovation. By sharing data promptly, PLOCAN aims to enrich scientific knowledge of the marine environment and empower informed decision-making.

## 3. Scope

This policy applies to all data that PLOCAN collects, processes, archives, and distributes through its observational infrastructure. It includes raw data (e.g., direct sensor readings) and processed products (e.g., calibrated time series) that are published via PLOCAN's portals or contributed by projects using PLOCAN's facilities.

- Types of Data: Physical measurements (temperature, salinity, currents), chemical (pH, dissolved oxygen), biological (chlorophyll, plankton abundance), meteorological (wind speed, air temperature), atmospheric (CO<sub>2</sub> levels), geophysical (seismic activity), geological (seafloor characteristics), and more.

- Platforms Covered: Both fixed and mobile observation platforms under PLOCAN's operation. This includes anchored buoys, the offshore structure, underwater observatories, gliders, AUVs, drifting buoys, and any other instrument collecting oceanic or atmospheric data. The goal is to maintain consistent open-data standards across all PLOCAN's observational activities.

## 4. Terms of Use for Open Data

This section defines how PLOCAN releases data openly, covering licensing, citation, formats, and quality assurance.

### 4.1. Open Data Principle

PLOCAN follows an “open by default” approach. Unless a justified exception applies (see Section 5.2), all generated data are released publicly without special requests, in alignment with European directives that encourage freely accessible research data.

To implement this principle, PLOCAN provides open access to its data through multiple channels:

#### 1. Interoperable Data Servers

For instance, a THREDDS/OPeNDAP server (listed at [data.plocan.eu](http://data.plocan.eu)) allows browsing and downloading standardized netCDF files, and an ERDDAP service offers on-the-fly data filtering and automated integrations.

#### 2. Real-Time and Historical Web Portals

Graphical interfaces such as ObsPlatform and SIBOY enable visualization of oceanographic data, both current and historical, with maps and plots suitable for non-specialists as well.

#### 3. Unified Open Data Portal (planned for 2025)

Recognizing evolving technology, PLOCAN is developing a centralized portal where users can search datasets in a single interface, visualize them, and download in multiple formats.

### 4.2. Data Citation

Proper acknowledgment of the data source is a fundamental requirement. Anyone using or publishing results based on PLOCAN data must cite PLOCAN as the original source, consistent with scientific best practices and the CC BY 4.0 license. Attribution recognizes the effort of data collection and maintenance, and it assists others in tracing the original source.

When a dataset has a persistent identifier (e.g., a DOI), users should include it in the citation. PLOCAN works to assign DOIs to key datasets so they can be referenced unambiguously even if web locations change over time.

#### **Example of a standard data citation:**

*Data obtained from the PLOCAN Observatory. [Year of data publication], [Title], [URL to dataset or data portal if available], data consulted on [Date of access], [DOI if available].*

The text in brackets is only mandatory in the case of bibliographic references.

Co-authorship may be required when **significant contributions** from PLOCAN staff are involved.

### 4.3. Data Formats and Metadata

Data formats, metadata, and ontologies are based on open and globally adopted standards whenever applicable. Metadata complies with OceanSITES and follows standardized variable naming conventions in accordance with CF Standard Names, ensuring consistency and interoperability across multiple marine data repositories.

### 4.4. Quality Control and Archival

Data Quality Control (QC) and sensor-related metadata, including sensor Quality Assurance (QA) procedures and history, are mandatory and documented based on open standard practices when available. QA/QC is a requirement for data release and is the responsibility of the principal investigator or owner of the system, instrument, or sample collector that acquired the observations and fed the data to the servers. Datasets follow the OceanSITES naming convention for standardized classification and integration. Long-term data storage is ensured through secure and redundant repositories.

## 5. Access to On-Demand Data

While PLOCAN proactively publishes most data as soon as they become available, the policy provides a mechanism for accessing data not directly on the online portals (e.g., older historical sets or unprocessed raw data).

### 5.1. Availability on Request

If users need specific PLOCAN data not visible on open portals, they can submit a request, describing which data or information they require (type, time period, resolution). If technically feasible and not subject to restrictions, PLOCAN will supply the requested data free of charge and in standard formats. If the volume is exceptionally large or requires special processing, PLOCAN may coordinate optimized delivery (e.g., via dedicated servers).

All requesters, regardless of affiliation or purpose, have equal conditions for data access. This procedure complements immediate open publication by ensuring no valuable data remain hidden.

### 5.2. Embargo and Restricted Data

Although immediate release is the norm, an embargo or certain restrictions may apply in exceptional circumstances, in line with the principle of being “as open as possible and as closed as necessary”:

- **Embargo Period:** Data may be kept internal for a limited time (up to six months) after collection or campaign conclusion, for reasons such as pending publication or finalizing critical calibrations.

- **Sensitive Information:** Data revealing vulnerable environmental sites or presenting security risks may require anonymization or deferred publication.
- **Commercial/Contractual Restrictions:** Some data produced under private funding or subject to confidentiality agreements may remain restricted until limitations expire.

PLOCAN documents any embargo period or restricted status and publishes partial or anonymized versions if feasible. Once an embargo ends, data are automatically released with full metadata.

### 5.3. Commercial Use

PLOCAN's open data may be used for commercial purposes as well as scientific, educational, or recreational activities. The chosen license (Creative Commons BY 4.0) explicitly permits commercial reuse provided the source is properly attributed. Companies, developers, or consultancies can integrate PLOCAN's data into products or services (e.g., ocean forecasting applications, environmental impact assessments, tourism solutions), thus contributing to blue-economy innovation.

Commercial users must likewise respect attribution requirements and must not imply endorsement by PLOCAN. If a commercial request involves unusually large data volumes or dedicated technical support, PLOCAN may negotiate specific terms, though the underlying data themselves remain openly accessible to all. No exclusive rights are granted to any one party.

## 6. Responsibilities of Users and Collaborators

- **Users:** Must credit PLOCAN, retain metadata or attribution notes, and avoid unethical or illegal uses. If they modify data, they should clearly indicate which changes were made and cannot misrepresent PLOCAN as endorsing derived products. Users carry full responsibility for how they interpret and apply the data.
- **Collaborators/Providers:** Institutions or researchers supplying data to PLOCAN are expected to follow best scientific practices, ensure data quality, and abide by PLOCAN's formatting and open-licensing standards. They must warrant they hold the rights to share the data and promptly inform PLOCAN of any updates or corrections.

## 7. Licensing

PLOCAN employs a licensing strategy that maximizes reuse while ensuring proper attribution. By default, all open data disseminated under this policy are covered by the **Creative Commons Attribution 4.0 International (CC BY 4.0)** license, unless explicitly noted otherwise.

### 7.1 Open Data License

Under CC BY 4.0, anyone may copy, distribute, transmit, and adapt PLOCAN data—including commercially—so long as they acknowledge PLOCAN as the original source. Users are encouraged to cite any modifications they perform, preserving transparency about data origins. In certain rare cases, a PLOCAN dataset might require a different license or additional conditions, for instance, if it

is co-produced with other entities that impose their own terms. PLOCAN will clearly indicate such exceptions. Otherwise, CC BY 4.0 applies.

## 8. Legal Notice

Using PLOCAN's open data implies acceptance of certain legal terms designed to protect PLOCAN from undue liabilities and regulate institutional name usage.

- **Disclaimer:** Data are provided "as is," with no explicit or implied warranties. While PLOCAN applies robust quality checks, the institution assumes no liability for errors, inaccuracies, service interruptions, or any consequences resulting from data use. Users must evaluate data suitability for their specific purposes, especially in safety-critical contexts like navigation.
- **No Endorsement:** It is strictly prohibited to use PLOCAN's name, logo, or visual identity in ways suggesting official sponsorship or partnership without written permission. Proper citation does not imply co-authorship or formal support.
- **Other Legal Considerations:** PLOCAN holds or secures the necessary rights to publish its data under open license. If personal information is inadvertently derived by combining PLOCAN data with other sources, users bear responsibility for compliance with data protection regulations.

Accessing PLOCAN's data does not establish any contractual relationship with the institution, and PLOCAN does not guarantee ongoing technical support or commercial-level service.

## 9. Policy Updates and Review

This Open Data Policy is a living document subject to review and updates based on legislative, technological, or operational changes. PLOCAN intends to examine the policy regularly (at least every two years).

## 10. Contact

For further inquiries or **data access support**, please contact:

- **Website:** [www.plocan.eu](http://www.plocan.eu)
- **Email:** [accesos@plocan.eu](mailto:accesos@plocan.eu)