# Plan Overview

*A Data Management Plan created using DMPonline*

**Title:** Global Dip (G-DIP): a collection of earthquake fault dip angles

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**ID:** 175419

**Last modified:** 09-04-2025

# Global Dip (G-DIP): a collection of earthquake fault dip angles

## Data Collection

#### What data will you collect or create?

Question not answered.

#### How will the data be collected or created?

Question not answered.

## Documentation and Metadata

#### What documentation and metadata will accompany the data?

The G-DIP dataset will be accompanied by comprehensive documentation addressing the data structure, the definition of variables, and the units of measurement.
Metadata will be openly available and contain enough information (direct link) to enable the user to access the data.
Provisions for metadata will include:

- metadata offered with the DOI as required by DataCite;
- metadata offered through the INGV Open Data Portal;
- metadata offered through the standard OGC protocol CSW.

## Ethics and Legal Compliance

#### How will you manage any ethical issues?

There is no ethical reason that could impact data distribution and sharing. A disclaimer will be associated with the dataset to remove legal liability from the data owner and publisher. Users will also be cautioned to consider the nature of the dataset carefully before using it for decisions concerning personal or public safety or business involving substantial financial or operational consequences.
No personal data will be collected or distributed with the dataset.

#### How will you manage copyright and Intellectual Property Rights (IPR) issues?

The G-DIP dataset will be distributed under the Creative Commons Attribution 4.0 International (CC BY 4.0) license terms. Users can request additional permissions to use the dataset by contacting the persons indicated on the website

## Storage and Backup

#### How will the data be stored and backed up during the research?

The data will be stored in the server that publishes the static file and in the server that issues the OGC services.

The data will be backed up using a storage server connected to the INGV private network.
To back up the database, we will use the standard PostgreSQL tool "pg_dump."
Since G-DIP successive releases are not yet scheduled, there is no need to schedule an automatic backup procedure. A back-up procedure will be run at the time a newer version become available.
The entire website where G-DIP is published is regularly backed-up.
The responsible for the backup and recovery procedure is Roberto Vallone (INGV).
In case of an incident with the publishing server, data will be recovered by restoring the database and the files from one of the multiple backup services. In particular, the database will be restored using the standard "pg_restore" tool of PostgreSQL.

**How will you manage access and security?**

All G-DIP data will be openly accessible.
SSL transfer for HTTP (HTTPS) is implemented and is chosen per default for all hosted services on theEDSF Installation where G-DIP is published.
No sensitive data will be stored.

## Selection and Preservation

**Which data are of long-term value and should be retained, shared, and/or preserved?**

G-DIP data and metadata stored in the INGV repositories will remain available indefinitely.
G-DIP is an integrated data product; as such, all the raw and processed data used to compile the G-DIP dataset will remain with their owners.
G-DIP will initially be used to devise possible input datasets to carry out earthquake hazard analyses (e.g., ground shaking or tsunami), earthquake scenarios, or seismotectonic and geodynamic models.

**What is the long-term preservation plan for the dataset?**

For security reasons, the datasets will be deposited in two INGV servers installed on two different institutional premises. Since the G-DIP main dataset and envisaged derived products should not occupy more than 1 GB of disk storage and the file formats will presumably remain common for many years, the storage cost can be considered negligible.

## Data Sharing

**How will you share the data?**

The standard OGC protocol WFS will be adopted to guarantee interoperability with other datasets or spatial data.
The G-DIP datasets will be available as downloadable files in the GeoJSON open format, facilitating users' combining and analyzing G-DIP with other geographically referenced data in a desktop Geographic Information System (GIS).
The already reserved DOI https://doi.org/10.13127/gdip1.0 will permanently identify the G-DIP main dataset's first version. Successive updates will be identified by DOIs that include the version number.

**Are any restrictions on data sharing required?**

The entire G-DIP dataset will be made openly accessible with no restrictions except for properly using the citation prescribed by the attribution license.

## Responsibilities and Resources

**Who will be responsible for data management?**

The persons responsible for the data management, curation, preservation, and distribution are thecontact persons that will be indicated on the website.

**What resources will you require to deliver your plan?**

EPOS and INGV institutional funding will partly cover storage, archiving, re-use, and security costs. When additional resources are necessary, they will be sought through project funding.