

Towards an Open Access European Database for Deep Seismic Sounding Data

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1. DSS project database

- Data represents a solid base to move science towards wisdom and novelty.
- Deep Seismic Sounding (DSS) data provides critical information of the crust and lithosphere, is the base of Solid Earth Sciences and results from a huge scientific effort among different institutions. Thus, DSS data needs to be preserved.
- To develop a prototype for DSS data access, seismic datasets are assigned a DOI, following the FAIR principles of data management: Findable, Accessible, Interoperable and Reusable.

2. Prototype: ICTJA-CSIC seismic database

- Digital.CSIC hosts an online repository where scientific data and data products are freely available.
- The Institute of Earth Sciences Jaume Almera (ICTJA) and digital.CSIC have encouraged a database of DSS data. CSIC aims to treat current dataset as published papers through DOI and handle.
- The ICTJA-CSIC seismic database includes normal-incidence and wide-angle DSS data acquired both onshore and offshore. They sample different geological settings at different scales.
- Seismic data are available in:
<https://digital.csic.es/handle/10261/101879>

Iberian Atlantic Margin (IAM) dataset

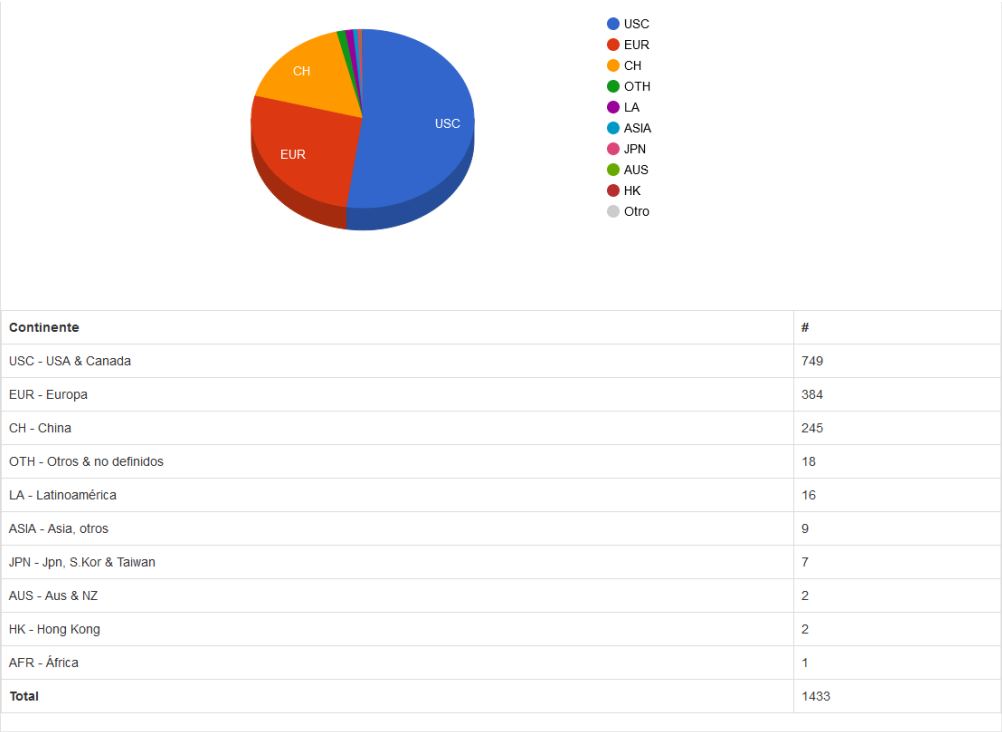
The screenshot shows the Digital.CSIC website interface for the Iberian Atlantic Margin (IAM) dataset. The page layout includes a top navigation bar with links to 'CSIC Research', 'Pasarela', 'Statistics', and 'Contact'. A search bar and a 'Sign on to:' link are also present. The main content area features a red banner with the dataset title and authors. Below this, there is a section for 'Share/Impact' with various social media and citation links. The 'Abstract' and 'Description' sections provide detailed information about the dataset. At the bottom, a table lists the files in the dataset, including metadata files and seismic data files.

File	Description	Size	Format	View/Open
Seismic_data_IAM-metadata.xlsx	Common and specific metadata file	74,11 kB	Microsoft Excel XML	View/Open
Readme_IAM.txt	Dataset general information	3,25 kB	Text	View/Open
IAM-T1.rar	IAM-T1 Data line	3,33 GB	Unknown	View/Open
IAM-T2.rar	IAM-T2 Data line	3,02 GB	Unknown	View/Open
IAM-2WA.rar	IAM-2WA Data line	3,28 GB	Unknown	View/Open
IAM-4E.rar	IAM-4E Data line	3,53 GB	Unknown	View/Open
IAM-GC3.rar	IAM-GC3 Data line	4,04 GB	Unknown	View/Open
IAM-T3.rar	IAM-T3 Data line	4,19 GB	Unknown	View/Open
IAM-GB1.rar	IAM-GB1 Data line	5,35 GB	Unknown	View/Open
IAM-GB2.rar	IAM-GB2 Data line	7,47 GB	Unknown	View/Open

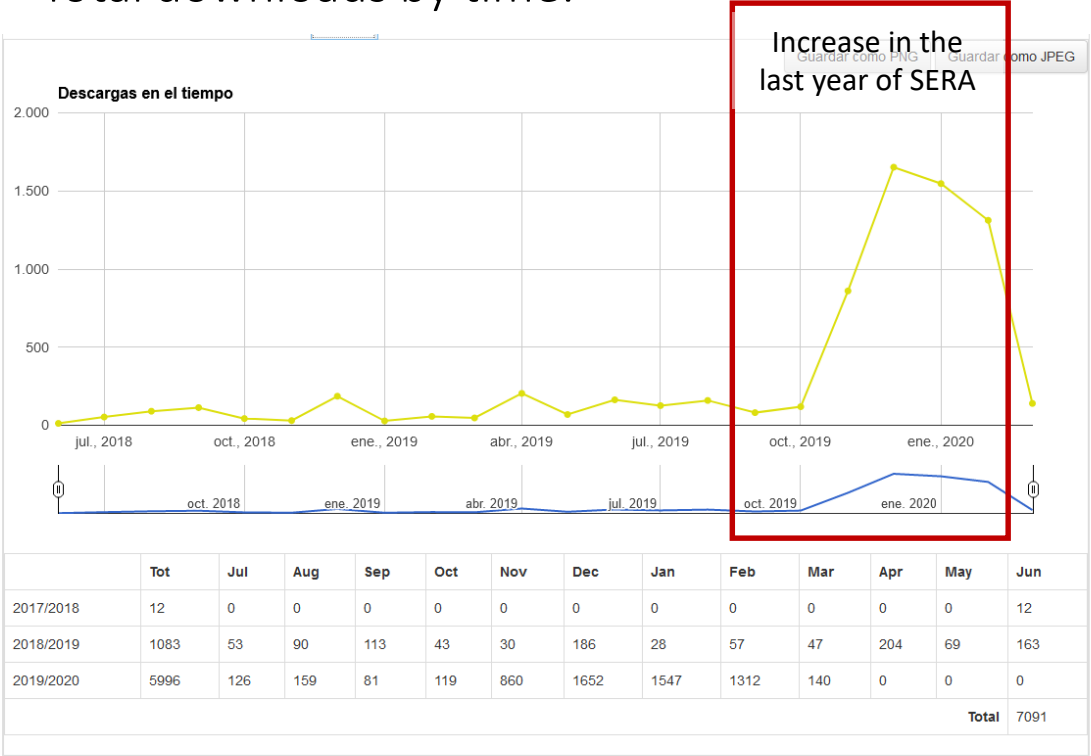


2. Prototype: ICTJA-CSIC seismic database

- Total downloads by region:



- Total downloads by time:



3. Future perspective of DSS data

- A continued collaboration of the DSS community is needed to move towards an open access DSS database.
- Digital.CSIC provides a great advance into the dissemination of the research data and results following the FAIR principles and is able to generate DOIs for different formats of datasets. It provides the infrastructure to accomplished the open access legal requirements.
- An open access database aims to facilitate knowledge discovery, to improve research transparency and to spread science for research, education and industry.

