



The Antarctic Seismic Data Library System (SDLS): fostering collaborative research through Open Data and FAIR principles

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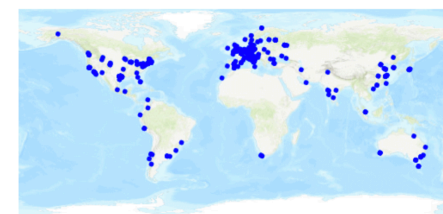
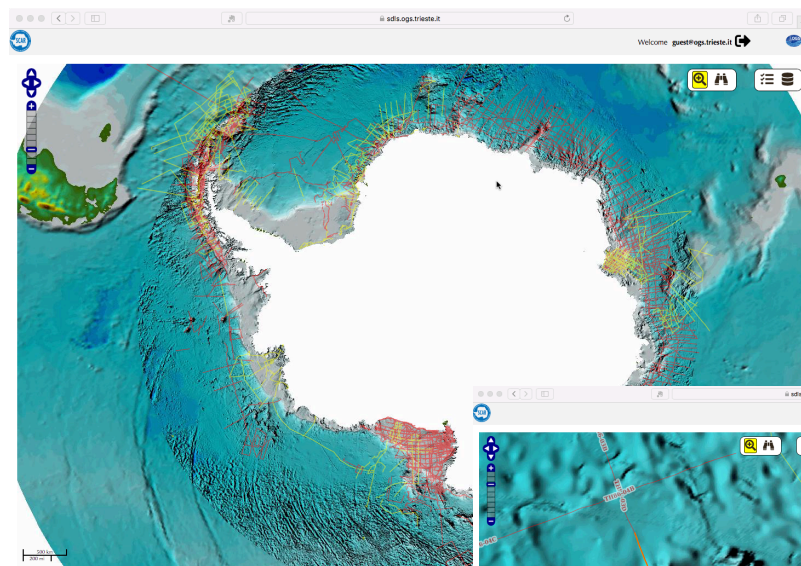
Antarctic Seismic Data Library System (SDLS) for Cooperative Research

- Created in 1991 under the mandates of the Antarctic Treaty System (ATS) and the auspices of the Scientific Committee on Antarctic Research (SCAR)
- Provides open access to Antarctic multichannel seismic-reflection data (MCS) for use in cooperative research projects
- All institutions that collect MCS data in Antarctica must submit their MCS data to the SDLS within 4 years of collection and remain in the library under SDLS guidelines until 8 years after collection.
- After 8 years, the data switch to unrestricted use.
- In order to trigger and foster as much as possible collaborative research within the Antarctic research community the SDLS developed a web portal

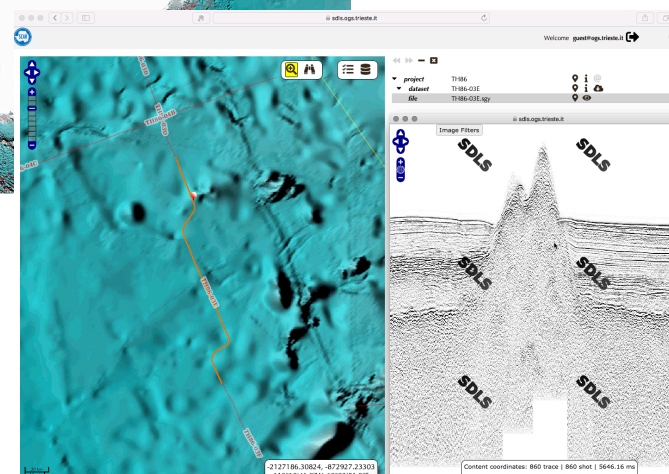
<http://sdls.ogs.trieste.it>



- Completely free
- More than 300.000 km of seismic lines
- Dedicated portal
- Direct data access
- Data download
- FAIR compliant
- DOI assigned
- OGC WFS, WMS compliant
- OGC O&M, SensorML compliant



Sdls users



Future development:

- ISO19115-3 compliancy
- Integration of BODC-SeaDataNet Thesauri
- Integration with other italian Antarctic data sharing initiatives
- Integration with geonetwork
- Discovery moved to geonetwork

References

- Diviaco, P., Mancini, S., Busato, A., Hoenner, X., Nitsche, F. (2018) "Tools to handle environmental concerns in marine seismic data exploration" IMDIS 2018.
- Diviaco P., Busato A., (2013) "The Geo-Seas Seismic data viewer: a Tool to facilitate the control of data access" Bollettino di Geofisica Teorica ed Applicata vol.54/2 june 2013
- Diviaco P. (2005) "An open source, web based, simple solution for seismic data dissemination and collaborative research", Computers and Geosciences, 2005, Vol 31/5 pp 599-605
- Diviaco P., Wardell N. (2003), "Reprocessing and dissemination of Antarctic Seismic Data" Terra Antarctica reports 2003,9 133,136

<http://sdls.ogs.trieste.it>