Open Science in Data Intensive Scientific Communities:

Oceanographic Data at the UTM-CSIC Data Centre and integration into EOSC

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Spain National Tripartite Event, Madrid 19th September 2023
Oceanographic Data

Multidisciplinary data

- air temperature, humidity, pressure, solar radiation, wind speed and direction, CO2...
- temperature, salinity, oxygen, chlorophyll, waves, tides...
- temperature, salinity, pressure, chlorophyll, currents, sampling by observation or capture...
- bathymetry, backscatter, magnetometry, sediment samples...
- sediment cores, seismics, gravimetry, magnetometry...

Research Vessels

<table>
<thead>
<tr>
<th>Vessel</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarmiento de Gamboa</td>
<td>70.50 m</td>
</tr>
<tr>
<td>Hespérides</td>
<td>82.5 m</td>
</tr>
<tr>
<td>García del Cid</td>
<td>37.2 m</td>
</tr>
</tbody>
</table>

All over the globe
Data Discovery & Access Services

Catalogue
Geoportal
Linked Data
Data Viewers
Repository
Services / Catalogue

- 764 cruises since 1979
- 1012 datasets since 2000

Open data (580)
Restricted (413)

National Open Science Strategy, 2023
Services / Geoportal

WMS
WFS
WCS
Services / Data Viewers & Download / Meteorological & thermosalinograph data

Open Data

http://data.utm.csic.es
@datautm
Services / Data Viewers / Water column profiles

Open Data

Cruise Id: 29SG20190930
Instrument: xbt
Latitude: 37.09029
Longitude: -9.482543
Parameter: Sound Velocity Profile

View in metadata catalog
Download data
View as graph
Services / Repository
open & restricted online access to data
Use of common vocabularies
Ocean Data Standards

Provenance Information

Findable Accessible Interoperable Reusable

Use of PIDs

Catalogue
Metadata – XML files, SeaDataNet format INSPIRE compliant

Access & Download Services

SeaDataNet datafile formats
Use of common vocabularies
QC – SeaDataNet flags

Metadata – XML files, SeaDataNet format INSPIRE compliant
By following the FAIR principles we are able to connect the infrastructure to some European marine data infrastructures such as:

European marine data infrastructures/ EMODnet
European marine data infrastructures/ EMODnet

EMODnet
Bathymetry
European marine data infrastructures / SeaDataNet

UTM-CSIC & IEO-CSIC are partners and Oceanographic Data Centres of SeaDataNet
European marine data infrastructures / Blue-Cloud

Data management following FAIR principles + Federation of Marine Data & Data Services

UTM-CSIC Data Centre

EMODnet
European Marine Observation and Data Network

SeaDataNet

EOVs

Copernicus Marine Service

Blue-Cloud

WORLD METEOROLOGICAL ORGANIZATION

Open Data
Thank you for your attention!

http://data.utm.csic.es  @datautm