From the field to the database: a user-oriented approach to promote cyber-curating of scientific continental drilling cores


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From field to database: a user-oriented approach to promote cyber-curating of scientific continental drilling cores

CLIMCOR national initiative aims at developing French facilities for scientific coring and drilling. It concerns indiscriminately ice, marine and continental samples. As part of this initiative, we initiated a reflection about core curating and associated coring-data management. We hence aim at conserving all metadata from fieldwork in an integrated cyber-environment which could evolve toward laboratory-acquired data storage in the future. In that aim, our approach was conducted through a close relationship with field operators as well laboratory core curators in order to propose user-oriented solutions. This project respects interoperability’s standards and persistent’s identifiers (DOI, IGSN, ISO19115/19139).

The French coring/drilling has been acknowledged among the leaders in this field for the last 20 years or so, especially in ice and marine domains. However, technological developments are pursued at different levels and the present CLIMCOR project, funded by the French Government new program for excellence in Infrastructures, intends to provide the French scientific community with top-rated technological support and a new generation of drilling/coring tools. CLIMCOR project concerns ice, continental and marine core activities.

The mobile application “core book” is the first stone of the building. It allows the captation of core metadata directly on the field. It was developed in close collaboration with field operators in order to bring them a real support on the field and skip the fastidious step of feeding a database.

The national web portal “cyber-core repository” aims at gathering all metadata from any scientific coring operated by French teams. Once gathered, the information are standardised and international persistent unique identifiers are attributed:
- DOI by campaign (by Datacite)
- IGSN for samples (by SESAR).

The metadata standard respects the European directive INSPIRE for cataloguing ISO 19115 / 19139.

Next steps:
- Continue to disseminate new practices and interest in our community, from the field to the lab!
- Integrate international databases and catalogues (NOAA’s IMLGS, LTHER-e DEIMS)
- Running LTHER project: publishing selected reference data using Linked Open Data (Concept of the ‘Retro-observatory’)

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