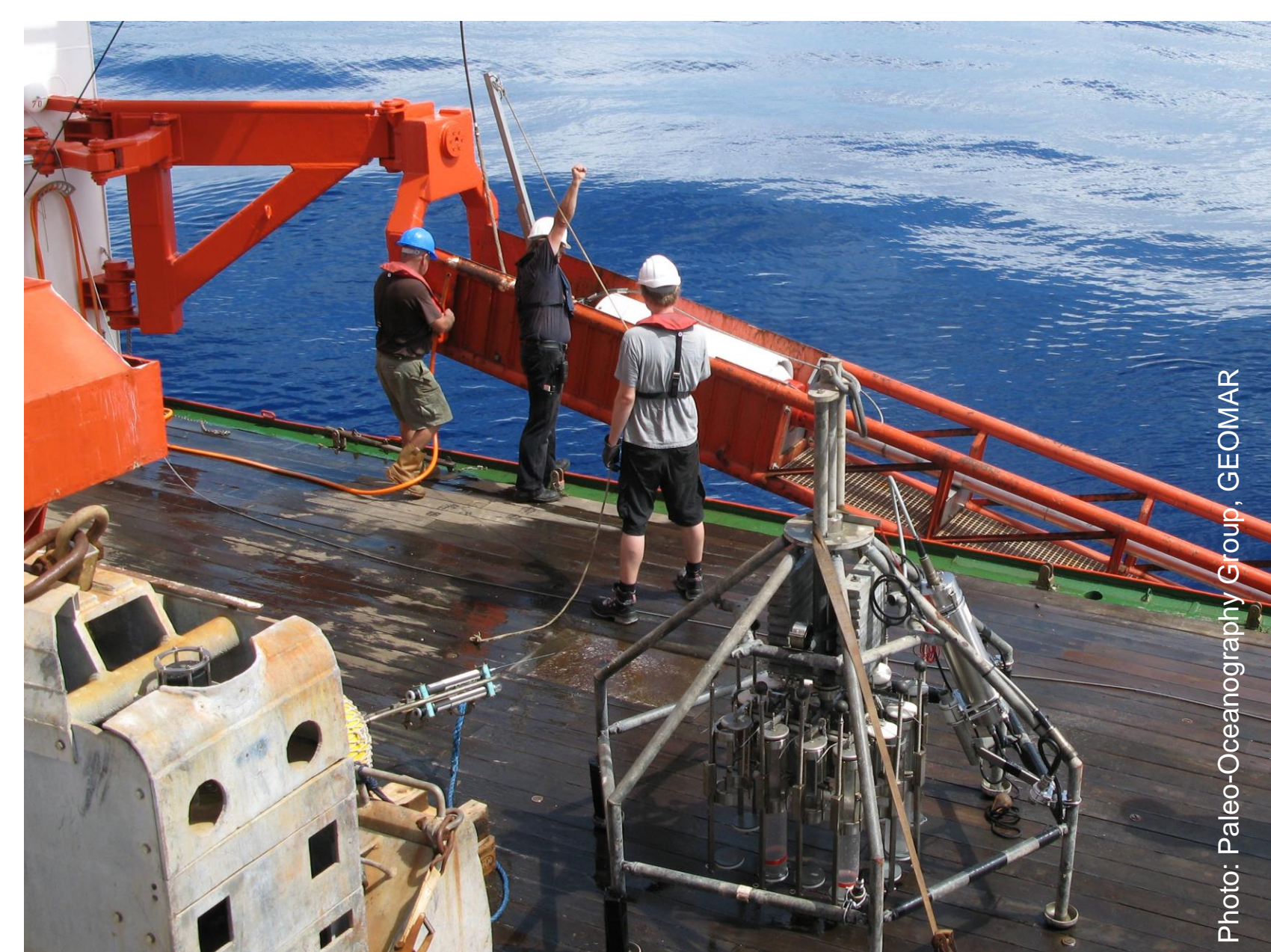




Background

In research fields that deal with physical objects, it is essential to establish a connection between the object and its metadata, ensuring that all subsequent research outcomes are tied to the original source. Using the International Generic Sample Number (IGSN) is a reliable method of achieving this connection.



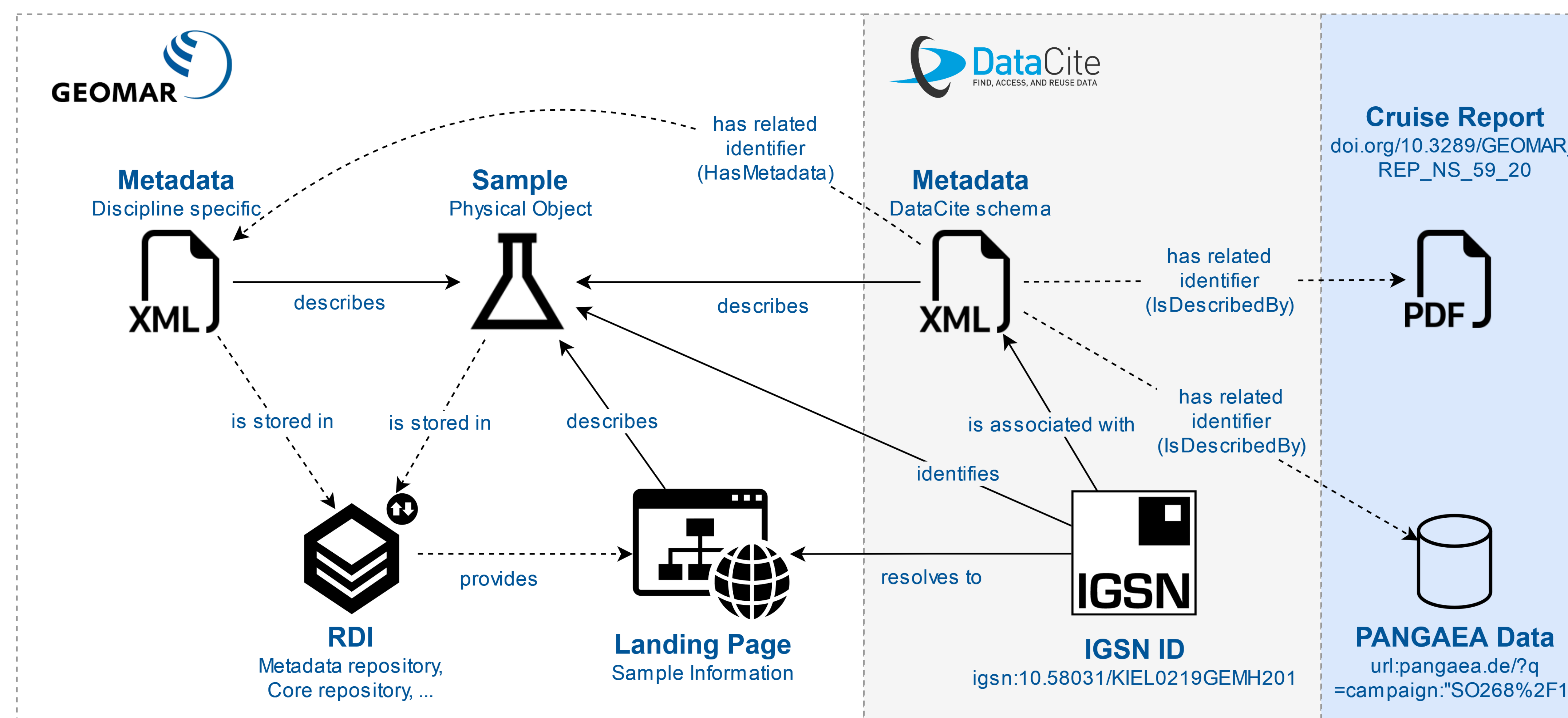
IGSN is a globally unique and persistent identifier for physical samples, which allows researchers to uniquely identify and trace the sample throughout its lifecycle, from collection to publication. IGSNs are registered via DataCite as a DOI, making it easily accessible for humans and machine-harvesting.



Our Approach

When dealing with geological samples, we aim to assign IGSNs at the earliest possible stage, i.e. during a research expedition. This ensures that the IGSNs can be:

- printed on sample labels going off to different research institutions
- listed in the expedition report and already
- incorporated in every data and research publication.



To emphasise, all data and metadata is captured in our local research data infrastructure (RDI; see poster EGU23-6873). Our metadata scheme is both discipline-specific and extensive, and we have mapped it to the DataCite metadata schema for those properties that have a corresponding representation within it. This will facilitate citation and retrieval of our data.

As additional metadata becomes available, we will update the corresponding IGSN metadata accordingly. The IGSN is designed to allow modifications and updates to be made over time, ensuring that the metadata associated with each sample remains accurate and up-to-date.

The RDI can be tailored to the specific needs of the research field, such as data collection software, the extent of information provided on the landing page, and restricted access to sensitive data.

Our Challenges & Solutions

In order to align with the DataCite metadata schema and capture relevant information, we believe that it is best to:

(a) Utilise as many metadata properties as possible to provide a comprehensive description of each object. For instance, properties such as "relatedIdentifier" can be used to provide additional details and enhance the accuracy of the metadata.

(b) Use controlled vocabularies where available, or remain consistent with your own systematic approach to metadata. This ensures that the metadata is standardised and easily understood by others in the research community, promoting effective data discovery and sharing.

