

Findability

- Unique and persistent **identifier** (e.g., DOI) to the dataset, making it easily citable and identifiable.
- Comprehensive **metadata**, including title, authors, keywords (e.g., Arctic, vegetation indices, satellite imagery), abstract, and data description.
- **Data catalog or repository**, such as a discipline-specific repository for remote sensing or environmental data, ensuring discoverability.

Accessibility

- **Open access** to dataset by hosting it in a publicly available repository or publishing it on a dedicated project website.
- **Clear instructions or links** for downloading the dataset, including any access restrictions (e.g., embargo periods or restricted access due to privacy concerns).
- **Long-term accessibility** by storing dataset in a reliable and long-term repository with proper data backup and preservation practices.

Interoperability

- **Standardized file formats** for the dataset, such as HDF5, which is commonly used for storing large remote sensing data.
- **Metadata in a standardized format** (e.g., according to COAT or MOSJ guidelines) to describe the variables, coordinate systems, and other relevant information.
- **Clear documentation on the dataset's structure**, variable definitions, units of measurement, and any necessary data transformations.

Reusability

- **Open license**, such as Creative Commons, for sharing data, allowing users to freely use and build upon the dataset.
- **Detailed documentation on the data processing steps**, including atmospheric correction, calibration, and vegetation index calculation.
- **Limitations, assumptions, or uncertainties** associated with the dataset, providing insights into its appropriate usage and potential biases.

Other Ideas

- **Data access API or web services** to programmatically access the dataset (database), allowing users to query specific subsets of the data.
- **Version control to track changes** and updates to the dataset over time, enabling users to access different versions if necessary.
- **Data quality control checks**, such as flagging unreliable or missing values and providing quality assurance information in the metadata.