

**ENCOURAGE AND SUPPORT AND
DEVELOPMENT OF SEMANTIC
TECHNOLOGIES IN SUPPORT OF
EARTH SCIENCE DATA
MANAGEMENT, DATA DISCOVERY,
DATA DISSEMINATION AND DATA
ANALYSIS**

**Data Quality Screening Service, NASA/
GSFC**

The Data Quality Screening Service (DQSS) uses an ontology to help automate the filtering of remote sensing data on behalf of science users

**FOSTER SHARING AND REUSE OF
ONTOLOGIES AND CONTROLLED
VOCABULARIES WITHIN ESIP
AND ITS MEMBER
ORGANIZATIONS**

Sea Ice Ontology Browsing, NSIDC/NSF

NSIDC is developing detailed, yet broad, sea ice ontologies linked to relevant marine, polar, atmospheric, and global ontologies and semantic services for the Sea Ice Interoperability Initiative

OPeNDAP Hyrax Data Server and RDF, OPeNDAP, Inc.

OPeNDAP's Hyrax Data Server produces RDF for each of the datasets it serves

Tool Match

A crowd-sourced, ontology-based tool for matching data sets with compatible tools

ESIP Ontology Portal

A repository for sharing Earth Science ontologies and resources

**ESIP FEDERATION
SEMANTIC WEB CLUSTER**

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**AGU Linked Open
Data, Marymount, RPI**

A data publishing methodology that results in structured data with explicit semantics

**COLLABORATE WITH ESIP
MEMBERS, WORKING GROUPS,
CLUSTERS AND STANDING
COMMITTEES TO IDENTIFY
SEMANTIC METHODS AND TOOLS
THAT SUPPORT THE ADOPTION
OF SEMANTIC TECHNOLOGIES
WITHIN ESIP AND ACROSS ITS
MEMBER ORGANIZATIONS**

**Use Cases for Semantic
Services**

Airborne Dust Detection in
MODIS Imagery
Temperature profile
comparisons
Fine-tuned data searches
(e.g., search by best usage)
Semantic subsetting

**Provenance for Earth
Science, ESDSWG**

PROV-ES provides a
common, ontological
framework for capturing,
recording, and disseminating
provenance information for
Earth Science data

**PROVIDE A
COLLABORATIVE
ENVIRONMENT FOR THE
DEVELOPMENT OF
ONTOLOGY-BASED
STANDARDS AND
CONTROLLED
VOCABULARIES**