



Committee on Earth Observation Satellites

# WGISS WG for Information

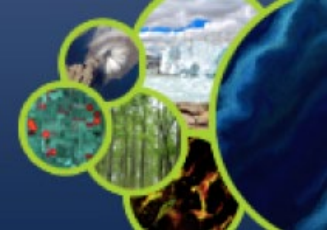
Makoto NATSUISAKA (WGISS, JAXA)  
Tom SOHRE (WGISS, USGS)

WG Disasters 17 (virtual)  
15, 16, and 17 March 2022





- WGISS (the Working Group on Information Systems and Services) is a subsidiary body supporting CEOS. WGISS promotes collaboration in the development of systems and services that manage and supply these observation data. WGISS creates and demonstrates prototypes supporting CEOS and Group on Earth Observation (GEO) requirements. WGISS also addresses the internal management of EO data, the creation of information systems and the delivery of interoperable services. The activities and expertise of WGISS span the full range of the information life cycle from the requirements and metadata definition for the initial ingestion of satellite data into archives through to the incorporation of derived information into end-user applications.



**Chair**, Makoto Natsuisaka, JAXA

**Vice-Chair**, Tom Sohre, USGS

### WGISS Principals

CAS/AOE: Guangyu Liu  
 CAS/RADI: Lizhe Wang  
 CSA: Paul Briand  
 CNES: Richard Moreno  
 CONAE: Homero Lozza  
 CSIRO: Robert Woodcock  
 DLR: Katrin Molch  
 EC: Astrid Koch  
 ESA: Mirko Albani  
 EUMETSAT: Michael Schick  
 GA: Simon Oliver  
 HSO: Gabor Remetey  
 INPE: Lúbia Vinhas  
 ISRO: Nitant Dube  
 JAXA: Makoto Natsuisaka  
 NASA: Andrew Mitchell  
 NOAA: Kenneth Casey  
 NRSCC: Chuang Liu  
 ROSCOSMOS: Tamara Ganina  
 USGS: Thomas Sohre  
 UKSA: Esther Conway

**WGISS Secretariat** (Michelle Piepgrass, JAXA)

**Data Preservation and Stewardship Interest Group**  
 (Mirko Albani, ESA)

**Discovery and Access - WGISS Connected Data Assets System Level Team** (Damiano Guerrucci, ESA)

- **IDN** (Michael Morahan, NASA)
- **FedEO** (Mirko Albani, ESA)
- **CWIC** (Minnie Wong, NASA)
- **OpenSearch II** (Olivier Barois, ESA)

**Interoperability and Use Interest Group**

(Robert Woodcock, CSIRO; Richard Moreno, CNES)

- **Future Data Architectures** (Robert Woodcock, CSIRO)
- **Carbon Portal** (Richard Baldwin, NOAA; Liping Di, NOAA)
- **Data Analytics Software and Tools** (Mirko Albani, ESA)

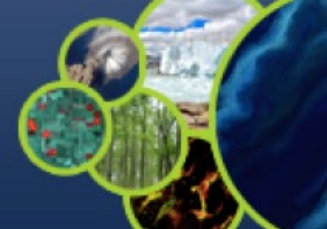
**Technology Exploration Interest Group** (Yousuke Ikehata, JAXA)

- **Jupyter Notebooks** (Esther Conway, NCEO-UKSA)

- WGISS Meeting
- WGISS Exec Meeting
- Interest Group Meeting
- WGISS Webinar



- The Connected Data Assets System Level Team works together to enable and ensure a harmonized discovery and access of EO satellite data by connecting CEOS Agencies' data collections via the supported WGISS standards and systems. **CEOS Opensearch Best Practice, CEOS IDN, FedEO, CWIC**
- The team ensures coordination in the operations, maintenance and evolution of the WGISS Connected Data Assets systems and tools contributed by agencies to CEOS.
- Users can discover and access CEOS agencies EO satellite data through single stop shops and using common tools, facilitating the broader usage of EO satellite data for applications and science.
- Data Providers (CEOS agencies) participating in the interest group can contribute to identify and evolve the standards and tools that enhance discovery and access of (their) EO satellite data in the international context.



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Features

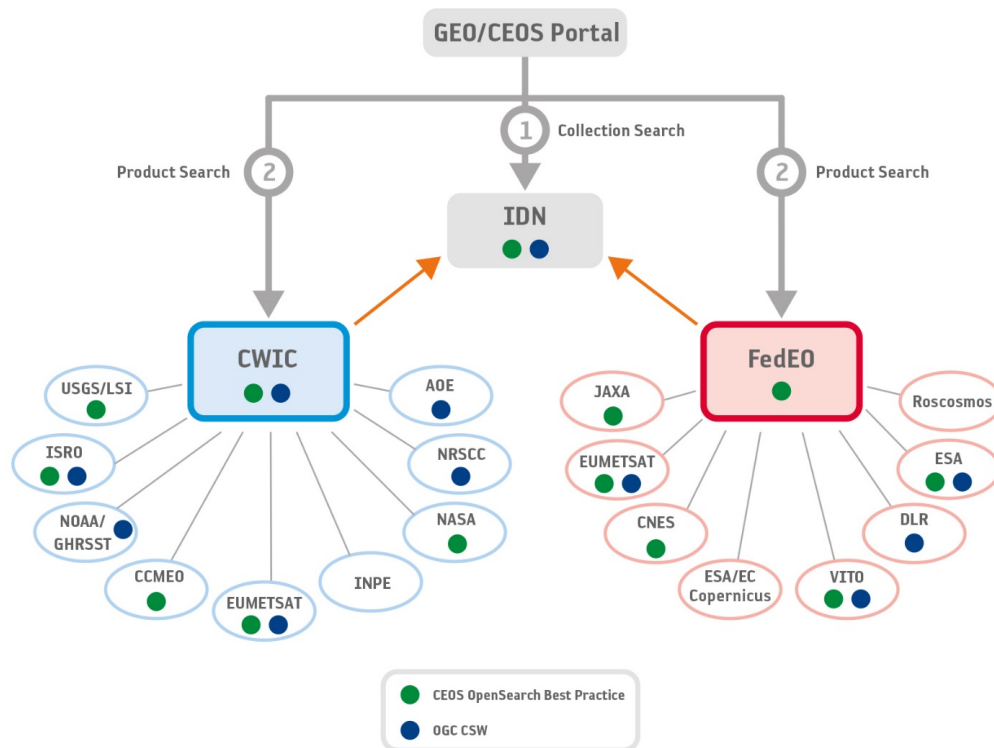
- Available from AWS Cloud
- Customizable
- Map Imagery
- Near Real Time

Keywords ▾

Platforms ▾

Instruments ▾

Organizations ▾





- The Data Preservation and Stewardship interest group works in the definition, contribution and sponsorship of data preservation and stewardship initiatives, standards, concepts and lifecycle.
- The sharing of agency investigations, developments, experiences, good practices and lessons learned relating to EO data preservation will grant a coherent stewardship framework implementation at CEOS level.
- Establish, maintain and advance the capacity to preserve the digital resources (data and information) for the benefit of present and future users and for Long Time Data Series generation and stewardship. **Persistent Identifier Best Practice**
- Data Providers (CEOS agencies) participating in the Preservation and Stewardship Interest Group can build-up and improve their capacity and capability to preserve and curate their respective data holdings **Data Preservation Maturity Matrix**

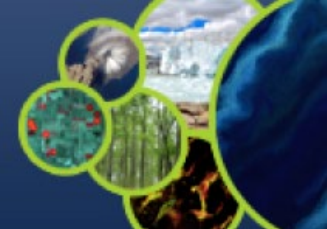


- Data Interoperability and Use interest group addresses the evolution of information systems, tools, technologies and approaches to ensure better support for EO users and applications exploiting huge volumes of EO data, and to maximize impact and usage of EO space data.
- CEOS EAIL (Earth Analytics Interoperability Lab.) ... Demonstration of Data Interoperability and co-use of **EO data in the cloud & Analysis in place, Scalable Computing, Jupyter Lab.**
- CEOS Cloud hosted **ARD** (or nearest equivalent) and **STAC** metadata



- The Technology Exploration interest group explores innovative and state of art technologies (e.g. Cloud Computing, Machine Learning), which can improve the impact and exploitation of EO satellite data.
- The group organizes webinars for end users and data providers and ad-hoc workshops at the occasion of WGISS meetings on computer and information technologies that show promise of furthering WGISS's and CEOS agencies goals.
- Webinars on **Jupyter Notebook** and **Open Data Cube**





Collaborations	CEOS entities
EAIL initiative	SEO, WGDisaster (Flood Pilot Project), WGCV (DEMIX), COAST, Rice Monitoring Community
Jupyter Notebook initiative	SEO, WGCapD
Common Maturity Metrics	WGCV
Common On-line Dictionary	WGCV
ARD Oversight Group	CEOS

Ref.

Global Earth Observation System of Systems (GEOSS) Architecture for the use of Satellites for Disasters & Risk Assessment (GA.4.Disasters), 2013