WGISS Chair Report

Tom Sohre, USGS

Agenda Item A.4

WGISS / WGCV Joint Meeting

15 & 18 October 2024

Sioux Falls, South Dakota, USA

CEOS

Committee on Earth Observation Satellites

WGISS-54 / WGCV-51

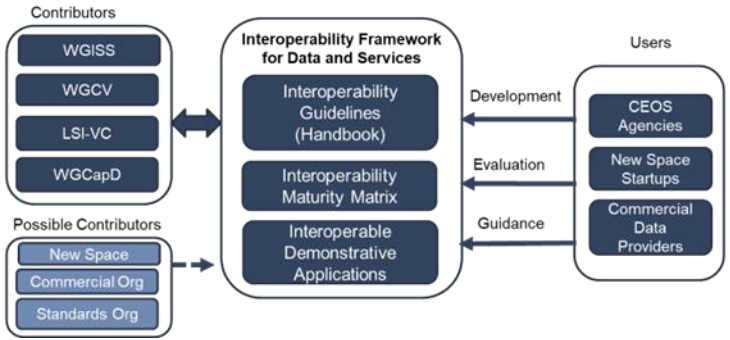
4-7 October 2022, Tokyo, Japan
Hosted by JAXA

Areas of Collaboration:

- CEOS Cal/Val Portal Opportunities for linkage.
- Status of ARD Activities and linkage to WG activities.
- Data Quality Indicators and the Data Management and Stewardship Maturity Matrix.
- Interoperability Framework Concept.

2024 Joint Meeting Objectives

- Interoperability … Handbook Approach, Semantics/Vocabulary Factor, WGCV leadership for Quality Factor,
- Maturity Matrices … WGCV Maturity Matrix, WGISS Data Mgmt. / Stewardship Maturity Matrix, Future Interoperability Maturity Matrix
- CEOS-ARD … 2024 CEOS-ARD Strategy and support from WGISS / WGCV
- Tools and Services … CEOS Analytics Lab, WGCV Cal/Val Portal, WGISS Connected Data Assets
- Commercial Sector Engagement strategy
- General Information Sharing and Collaboration



WGISS-57

4-7 March 2024, Sydney, Australia
Hosted by GA and CSIRO

Areas of Discussion:

- Roadmap for Data Interoperability and Use Interest Group Activities
- Geospatial Standards (ISO, OGC, STAC)
- AI/ML Demonstrators Projects
- Jupyter Notebooks in Digital Earth and CAL
- CEOS Data Access including FedEO and IDN
- Collections Management Introduction
- Overview of Biodiversity Initiative

- Endorsement of Archive Technologies White Paper
- (45) Actions Identified (29-complete, 11-IP, 5-Open)

WGISS-58 Meeting Objectives

❖ **Review Accomplishments and Work in Progress**

- Evolution of FedEO/IDN for implementing emerging interfaces (i.g. STAC)
- STAC EO Collection and Granule Discovery Best Practices
- Connected Data Assets Website Updates
- EO Data Collections Management and Governance White Paper
- Heritage Dataset Recovery (AVHRR)
- AI/ML White Paper
- Jupyter Notebooks Best Practice
- Interoperability Handbook Version 2.0

Working Group on Information Systems and Services (WGISS) *promotes collaboration in the development of systems and services that manage and supply Earth observation data:*

To enable Earth observation data and information to be more ***accessible and usable*** *to both data providers and data users world-wide through international coordination.*

To foster ***easier exchange*** *of Earth observation and related data and information to meet the requirements of users and data providers.*

To foster the development of ***best practices*** *and encourage the development of* ***interoperable services*** *that exploit space-borne Earth observation data.*

To enhance the ***complementarity, interoperability and standardization*** *of Earth observation data and information management and services with other types of geospatial data such as in situ data*

PRESERVE AND KNOW THE PAST | UNDERSTAND THE PRESENT | SHAPE AND ENABLE THE FUTURE

WGISS-58 Meeting Objectives Cont.

- **Develop Vision for Ongoing Activities**
  - Efficient and Effective Communications w/ Stakeholders (Website, Social Media, Whitepapers, Best Practices)
  - Opportunities for collaboration: CEOS WG's, GEO, Commercial Sector, Standards bodies
  - Challenges and Best Practices Managing Data in Cloud
  - Authentication and Authorization approaches
  - Data compression algorithms
  - Traceability and provenance
  - Technology Exploration objectives

Working Group on Information Systems and Services (WGISS) *promotes collaboration in the development of systems and services that manage and supply Earth observation data:*

To enable Earth observation data and information to be more ***accessible and usable*** *to both data providers and data users world-wide through international coordination.*

To foster ***easier exchange*** *of Earth observation and related data and information to meet the requirements of users and data providers.*

To foster the development of ***best practices*** *and encourage the development of* ***interoperable services*** *that exploit space-borne Earth observation data.*

To enhance the ***complementarity, interoperability and standardization*** *of Earth observation data and information management and services with other types of geospatial data such as in situ data*

PRESERVE AND KNOW THE PAST | UNDERSTAND THE PRESENT | SHAPE AND ENABLE THE FUTURE

WGISS Chair Observations

- Communication and Collaboration is key to our success.
- Interoperability will not occur in isolation; It will require collaboration, change, and compromise.
- Our stakeholders are being challenged by rapidly increasing EO data volumes.
- Technology is constantly evolving, and this rapid evolution can be challenging to keep up with.
- We learn from each other's successes (and challenges) … sharing is important.
- Many of our activities are not "done" … we evolve as we learn more.
- It can be valuable to incorporate lessons learned from non-CEOS organizations (commercial engagement).
- As a best effort organization, it is necessary to be strategic and efficient in our activities

PRESERVE AND KNOW THE PAST | UNDERSTAND THE PRESENT | SHAPE AND ENABLE THE FUTURE

WGISS Organizational Structure

WGISS Principals

AEM: Adrian Guzman
CAS/AIR: Ziyang Li
CAS/NRSCC: Chuang Liu
CNES: Pierre-Marie Brunet
CONAE: Homero Lozza
CSA: Paul Briand
CSIRO: Matt Paget
DLR: Katrin Molch
EC: Daniel Quintart
ESA: Mirko Albani
EUMETSAT: Michael Schick
GA: Simon Oliver
GISTDA: Panu Srestasathien
INPE: Lubia Vinhas
ISRO: Nitant Dube
JAXA: Makoto Natsuzaka
NASA: Katie Baynes
NOAA: Kenneth Casey
NSO: Raymond Sluiter
ROSCOSMOS: Tamara Ganina
UKSA: Michelle Odgers
USGS: Tom Sohre
VSNC: Vu Anh Tuân

Chair Tom Sohre, USGS
Vice-Chair Nitant Dube, ISRO
Secretariat Libby Rose, Symbios for USGS

Data Preservation and Stewardship Interest Group: Mirko Albani, ESA

Data Interoperability and Use Interest Group: Nitant Dube, ISRO

Data Discovery and Access Interest Group: Damiano Guerrucci, ESA

- **IDN** Michael Morahan, NASA
- **FedEO** Damiano Guerrucci, ESA
- **CWIC** Minnie Wong, NASA

Technology Exploration Interest Group: Yousuke Ikehata, JAXA

THANK YOU!