

A hand is shown holding a glowing blue wireframe globe. The globe is composed of many small triangles and is positioned over a laptop screen. The background is a blurred image of a person's arm and the laptop. The text 'OPEN DATA & OPEN KNOWLEDGE' is overlaid on the image in a large, white, sans-serif font. Below it, the word 'Workshop' is written in a smaller, white, sans-serif font and underlined.

OPEN DATA & OPEN KNOWLEDGE

Workshop

Osamu Ochiai, JAXA

JAXA Portals and Data Provision to Partner Portals

JAXA Portals

Thematic Portals



JASMES
Ocean



GSMaP
Precipitation

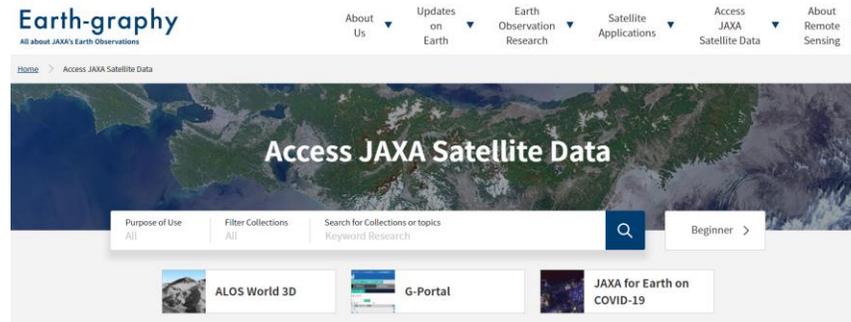


Bousai Interface
Disaster

Knowledge Hub

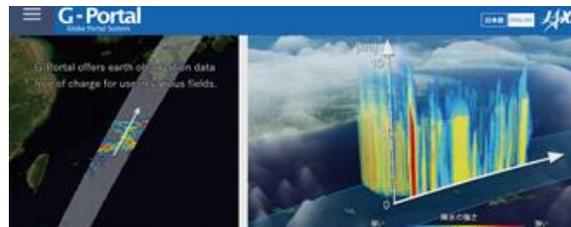
Earth-graphy
<https://earth.jaxa.jp/en/>

- ✓ Web Portal
- ✓ Knowledge Hub
- ✓ Portal Search (*)



* Associate 21 portals are findable via Earth-graphy.

Data Provision



G-Portal

Search & Data Provision for JAXA Standard Products

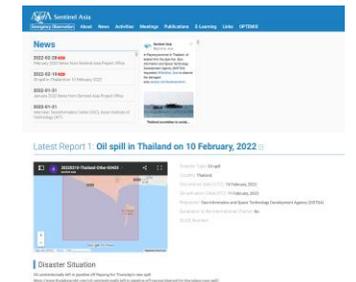
Partner Portals



GDAS GHG

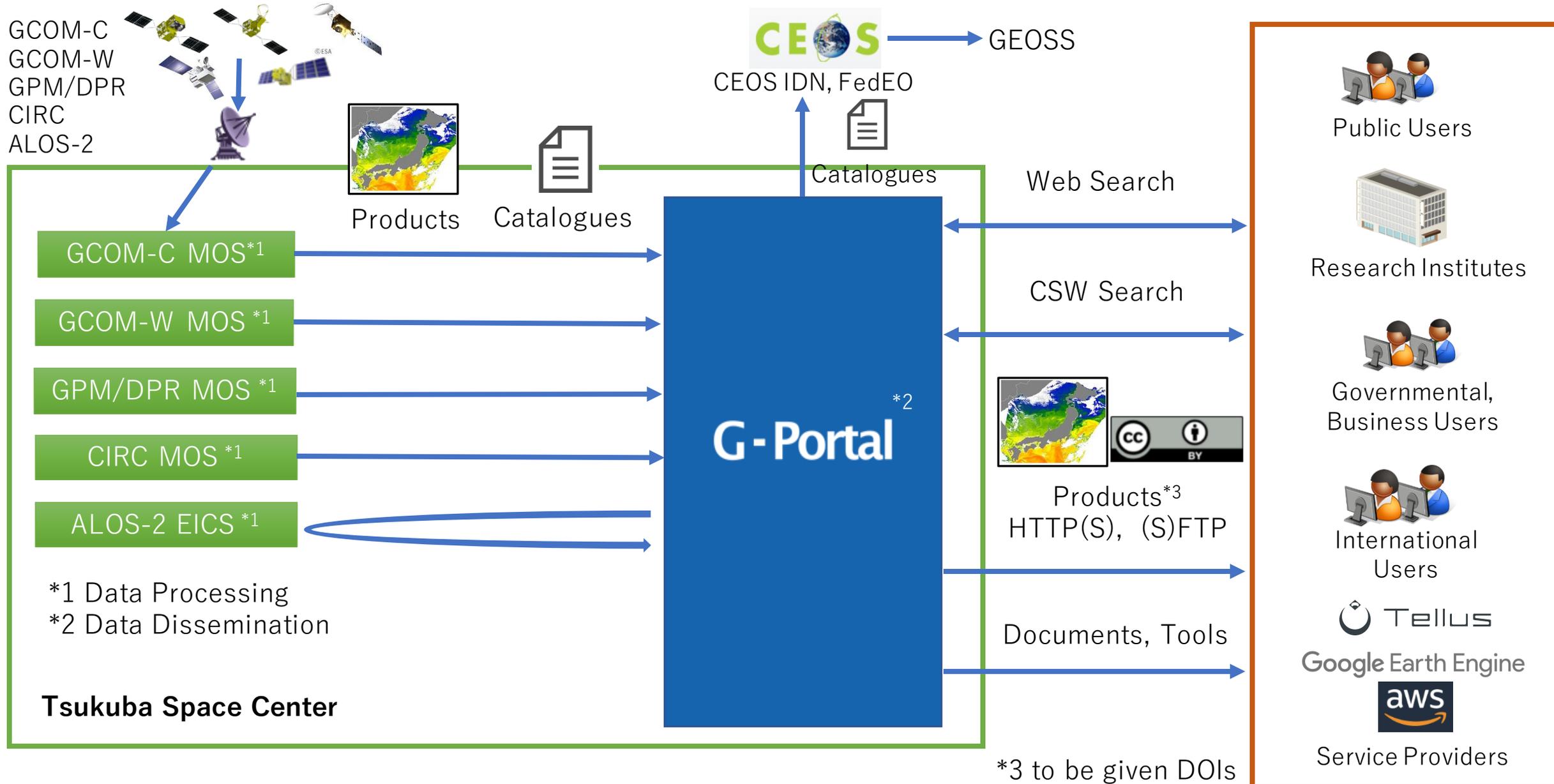


International Charter
Disaster



Sentinel Asia
Disaster

JAXA Data Dissemination System: "G-Portal"

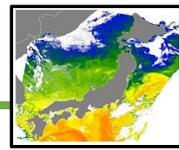


GCOM-C
GCOM-W
GPM/DPR
CIRC
ALOS-2



CEOS IDN, FedEO

GEOSS



Products



Catalogues

Catalogues

GCOM-C MOS^{*1}

GCOM-W MOS^{*1}

GPM/DPR MOS^{*1}

CIRC MOS^{*1}

ALOS-2 EICS^{*1}

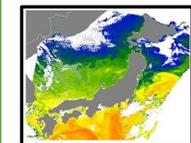
*1 Data Processing
*2 Data Dissemination

Tsukuba Space Center

G-Portal^{*2}

Web Search

CSW Search



Products^{*3}
HTTP(S), (S)FTP

Documents, Tools



Public Users



Research Institutes



Governmental,
Business Users



International
Users



Google Earth Engine



Service Providers

*3 to be given DOIs

Intellectual Properties - Availabilities and Constraints

Open and Free

- Mid to Low Resolution Data (including ALOS-2 Scan SAR) and Value Added Products: 5 m or lower than 5 m resolution
 - Appropriate **citation, acknowledgement** and/or **attribution** of the products is necessary.
 - Any users can access to the products **without limitation on modification or redistribution** to the third party.
 - *Constraints may be applied to some products when the third party's IPs are used.*
- Documents (i.e. ATBD, format description, etc.), libraries, tools and sample programs to handle JAXA products are available to the public.

Protected or Licensed

- High Resolution Data: Higher than 5 m resolution (For ALOS-2, higher than 10 m resolution)
 - Provided for researchers and partner agencies with research/cooperation agreements.
 - For public use, licensees distribute at a market price.
 - Handling further higher resolution data is required to comply with Japanese remote sensing act.
- Some processing software and analysis tools are protected and require license agreements.
- Calibration and validation data are provided for researchers licensed by research agreements.

JAXA-NASA-ESA cooperation in response to COVID-19



- Trilateral collaboration to analyze the changes in the global environment and socio-economic activities before and after the COVID-19 global pandemic using Earth observation satellite data from the three agencies
- Collaboration activities based on the Working Groups:

Air quality and Climate

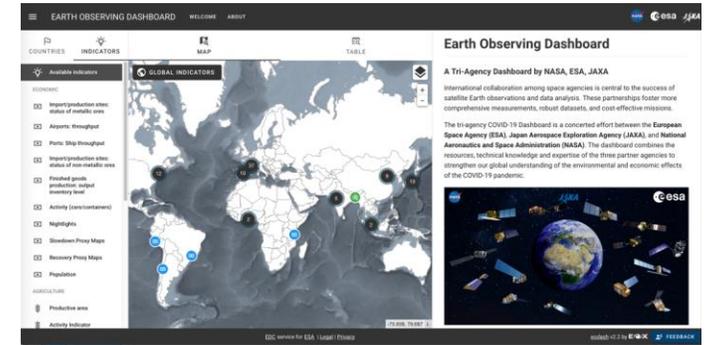
Economic activity

Water quality

Agriculture

Dashboard

- The three agencies launched “**Earth Observing Dashboard**” on 25 June, 2020. (<https://eodashboard.org>)
- JAXA also launched “**JAXA for Earth on COVID-19**”, a special web page introducing analysis results of JAXA’s Earth observation data on COVID-19, on 25 June, 2020.



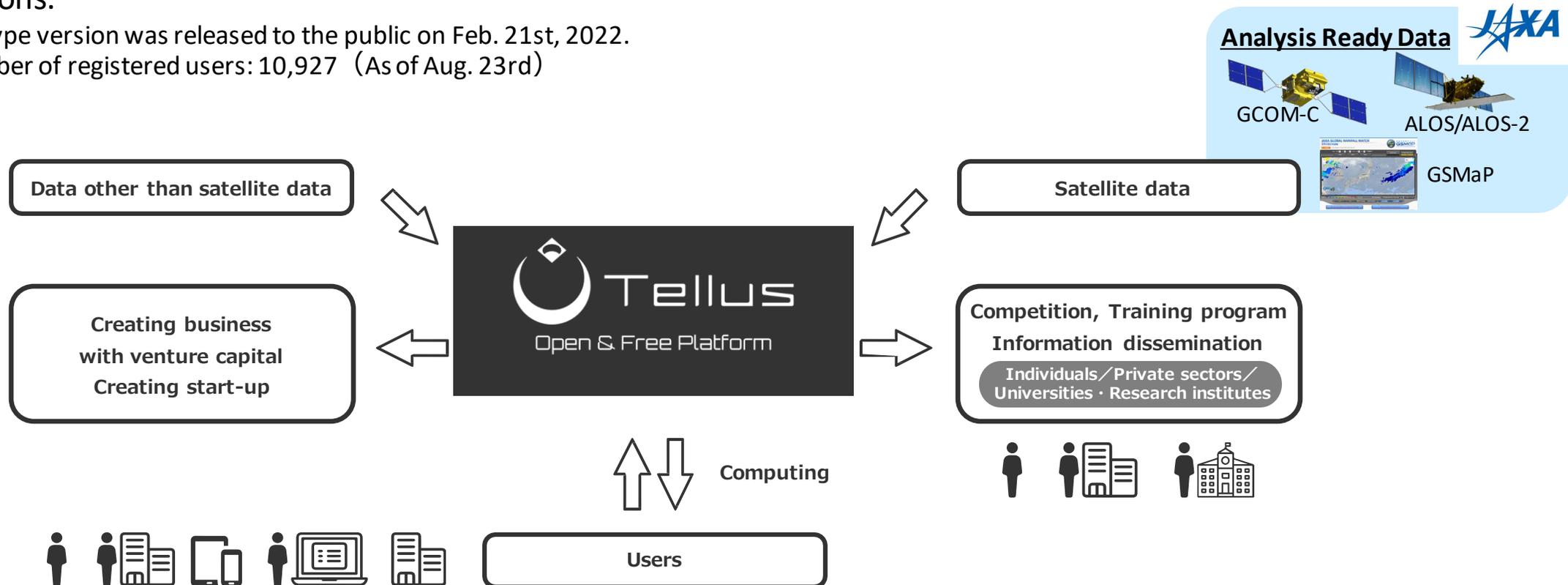
Earth Observing Dashboard
<https://eodashboard.org>



JAXA for Earth on COVID-19
<https://earth.jaxa.jp/covid19/>

Japanese national satellite data platform “Tellus”

- ❑ “Tellus” is a **national data platform** aiming for enhancement of satellite data **utilization for business purposes** launched by Ministry of Economy, Trade and Industry of Japan (METI).
- ❑ Followings are available for **free of charge in principle**:
 - ✓ **Space-based data**
 - ✓ **AI and software** to analyze images
- ❑ **Computing Resources** are available on **the Cloud** together with **user-friendly tools and software** for research and applications.
- ❑ The prototype version was released to the public on Feb. 21st, 2022.
 - ✓ Number of registered users: 10,927 (As of Aug. 23rd)



Cooperation with Google Earth Engine



Value Added Products

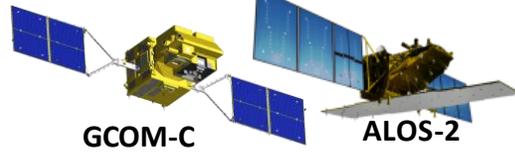


GSMaP
(Precipitation)



Forest/Non-Forest
Map

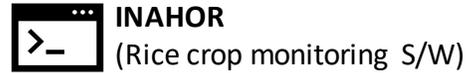
Analysis Ready Data



GCOM-C

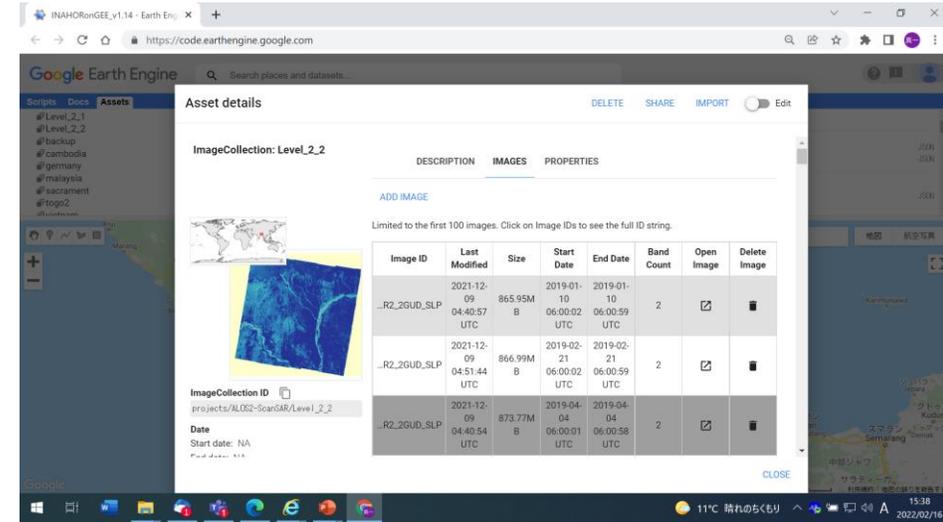
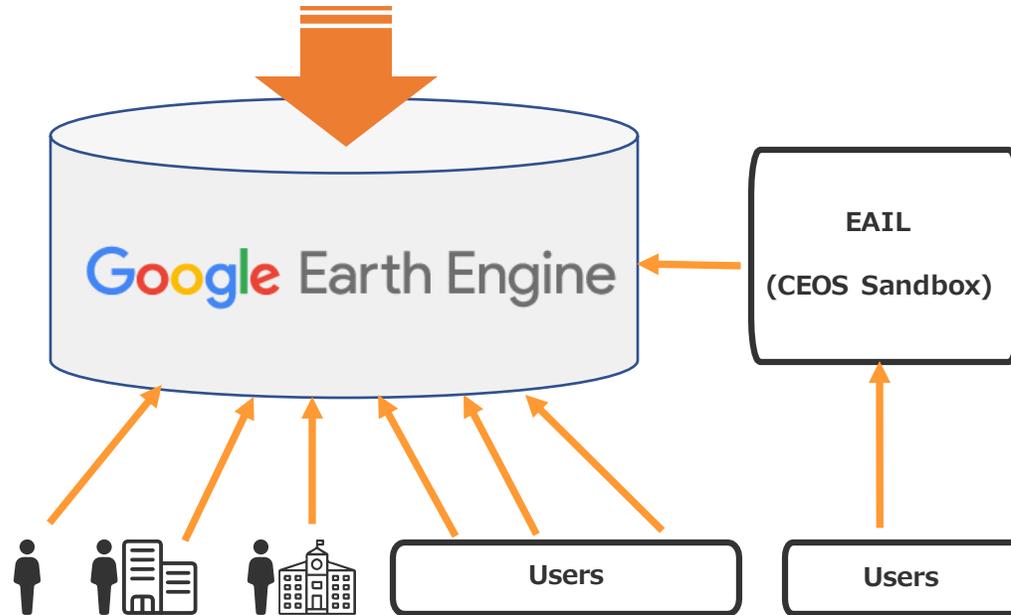
ALOS-2

Software

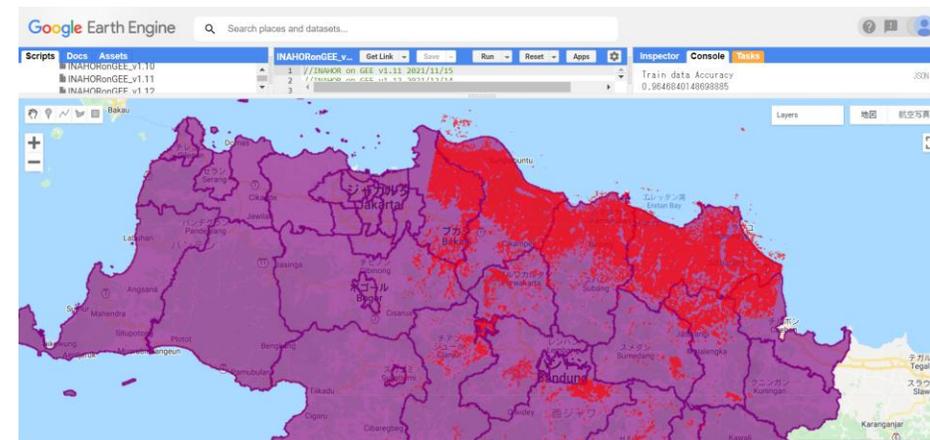


INAHOR

(Rice crop monitoring S/W)



- ✓ Bangladesh ALOS-2 ScanSAR ARD is now available on GEE.
- ✓ From April 2022, more ALOS-2 ARD will be installed on GEE.



- ✓ Rice crop estimation for Indonesia processed with INAHOR.

Introduction of ALOS-2 L2.2: ALOS2 L2.2 on GEE Archive

- **Data availability as of March 2023 :**

From 2014 August 4th to 2022 December 13th.

- **Data Latency:**

Around 2 months after observation.

- **Frequency of Observation:**

In general Every 42-days

- **Spatial resolution:**

25 m

- **Data Unit:**

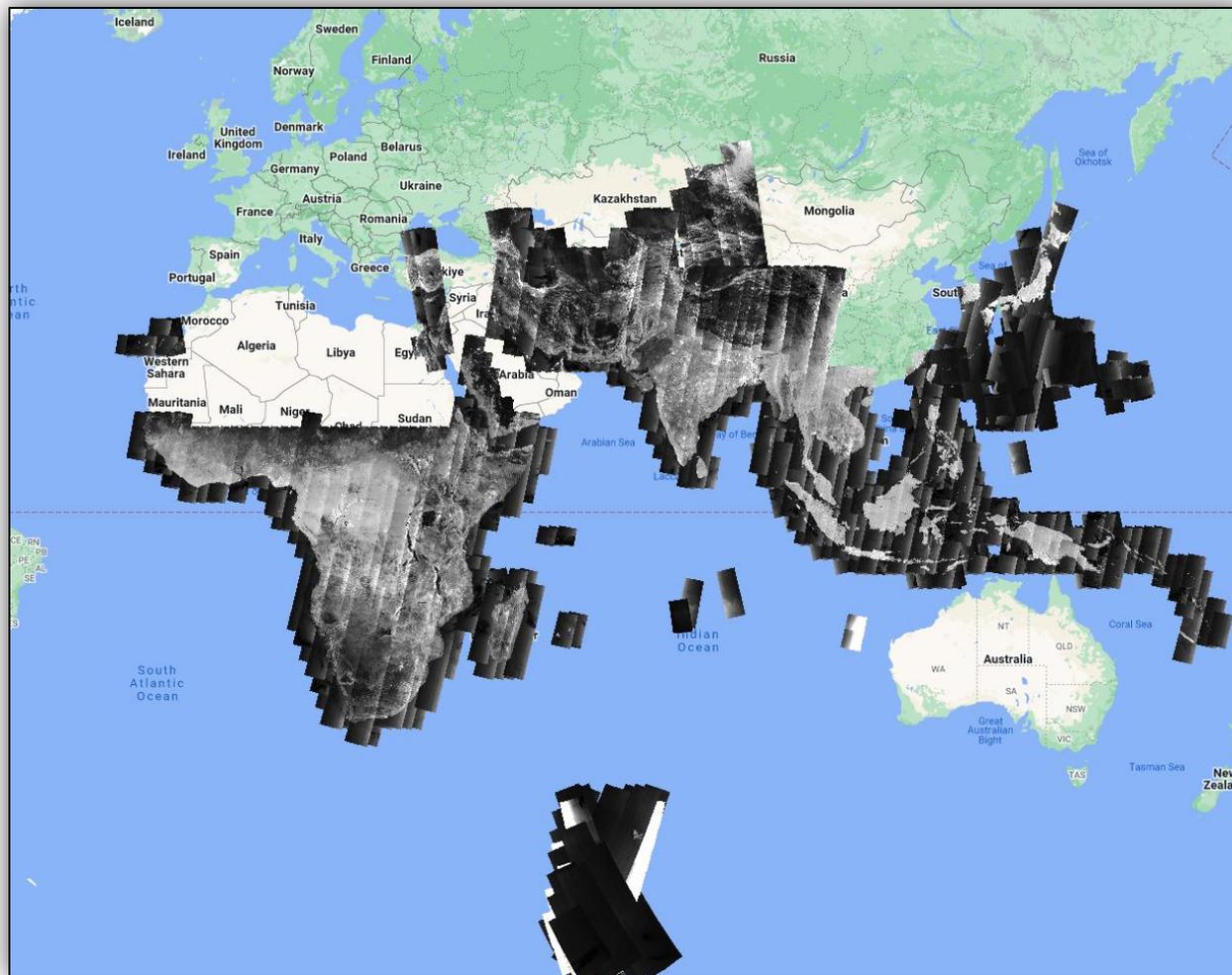
16-bit digital numbers (DN)

- **Limitation:**

- Due to the data latency, the data is not suggested for near-real-time applications (ex: Flooding, etc.)
- The data level as well as GEE capacity is not suitable for the InSAR analysis.

- **Suggested Application:**

- Land use and Land cover changes
- Forest Cover Changes
- Water Management in paddy fields

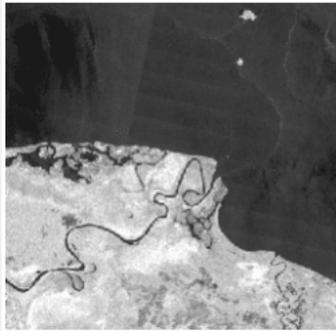


Introduction of ALOS-2 L2.2: ALOS2 L2.2 on GEE Archive

Earth Engine Data Catalog Search English

[Home](#) [View all datasets](#) [Browse by tags](#) [Landsat](#) [MODIS](#) [Sentinel](#) [API Docs](#)

PALSAR-2 ScanSAR Level 2.2 🔖



Dataset Availability
2014-08-04T00:00:00Z–2022-12-31T05:54:30

Dataset Provider
[JAXA EORC](#)

Earth Engine Snippet
`ee.ImageCollection("JAXA/ALOS/PALSAR-2/Leve12_2/ScanSAR")` [🔗](#)

Tags
alos2 eroc jaxa palsar2 radar sar

Description Bands Image Properties **Terms of Use** Citations

Terms of Use
Anyone can use this data free of charge subject to the to the attribution requirements. For detailed terms of use see JAXA [G-Portal Terms of service](#) (Section 7. Condition concerning of G-Portal data).

Demonstration of displaying ALOS-2 L2.2 data on GEE

The screenshot shows the Google Earth Engine interface with the following elements and callouts:

- 1- Search for the location of your interest from here**: Points to the search bar at the top left.
- 2- Change the period of the observation**: Points to the code editor where the following script is visible:

```
var Starting_Date='2015-10-01'  
var Ending_Date='2015-10-31'
```
- 3- Draw the boundary of your interested area**: Points to a polygon boundary drawn on the map of Phu Quoc island.
- 4- Run**: Points to the 'Run' button in the top toolbar.
- 5- Download the data from Task Tab**: Points to the 'Tasks' tab in the top right, which shows a task named 'ALOS2L2_2_2015-10-01T2015-10-31' with a 'RUN' button.

Please access the sample code to visualize and download ALOS2 L2.2 data:

<https://code.earthengine.google.com/cea1cb5ffa92ac5faba9a720d32db97c>

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