

United Nations/Austria

World Space Forum

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GEO Knowledge HUB

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ORGANIZED JOINTLY BY:

 Federal Ministry
Republic of Austria
Climate Action, Environment,
Energy, Mobility,
Innovation and Technology



UNITED NATIONS
Office for Outer Space Affairs

 Federal Ministry
Republic of Austria
European and International
Affairs

The Group on Earth Observations (GEO) is an intergovernmental partnership that improves the availability, access and use of Earth observations for a sustainable planet.

GEO promotes open, coordinated and sustained **data sharing and infrastructure** for better research, policy making, decisions and action across many disciplines. The GEO community focuses on global priority engagement areas: **the United Nations 2030 Agenda for Sustainable Development, the Paris Agreement, and the Sendai Framework for Disaster Risk Reduction.**

The GEO Work Programme is the primary instrument used by GEO to facilitate collaboration among its Members, Participating Organizations, GEO Associates, and other partners on activities to realize GEO's Mission and Vision.



From Open EO data to Open EO Knowledge



GEO-17 – 23-26 November 2021

GEO-17-4.1

Annex A

GEO Statement on Open Knowledge

According to the Open Knowledge Foundation¹, knowledge that is free to use, reuse, and redistribute without legal, social, or technological restriction may be defined as “open knowledge.” This definition clarifies the meaning of “open” with respect to knowledge, promoting a robust commons where collaborative community can thrive and interoperability is maximized.

Open Knowledge has proven to have played a pivotal role in tackling global challenges such as the COVID-19 pandemic. Open Knowledge is also beneficial for achieving the United Nation’s Sustainable Development Goals, the Paris Agreement objectives, the Sendai Framework for Disaster Risk Reduction, and a reduction in the knowledge divide among countries.

.....**Data Alone is not enough**

Welcome to the GEO Knowledge Hub!

An open-source digital repository of open, authoritative and reproducible knowledge created by the [Group on Earth Observations](#)

Search for Earth Observations Applications



Search by engagement priorities

NEW
URBAN
AGENDA

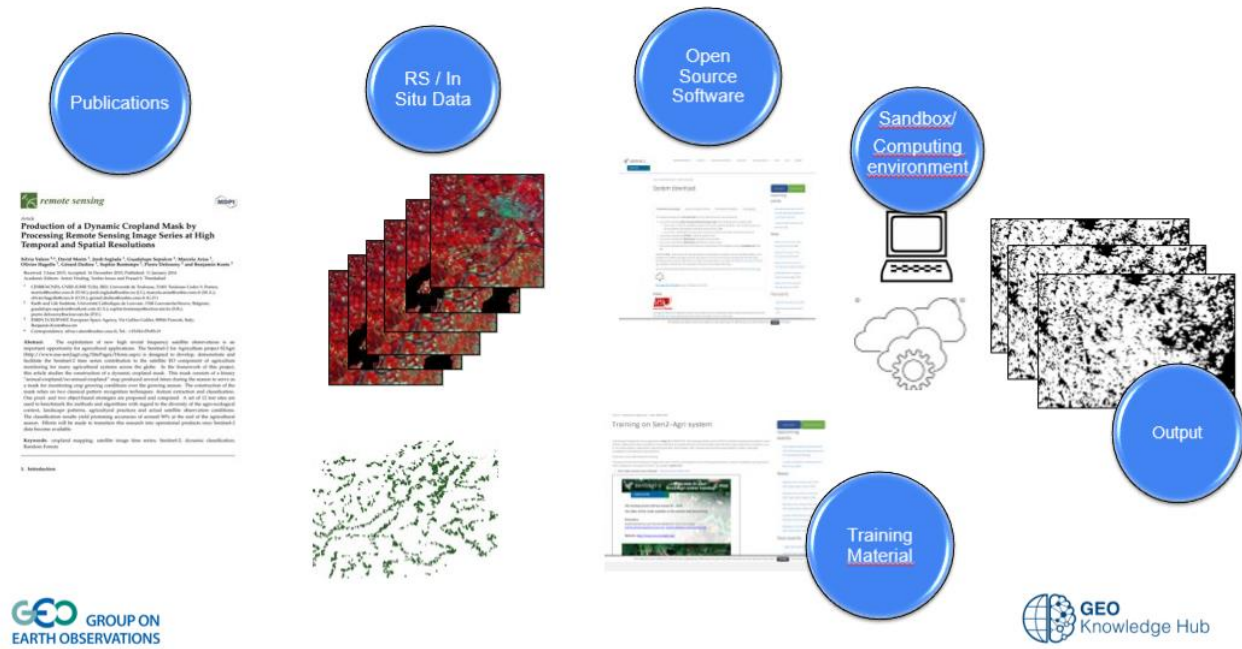


SENDAI FRAMEWORK
FOR DISASTER RISK REDUCTION 2015-2030

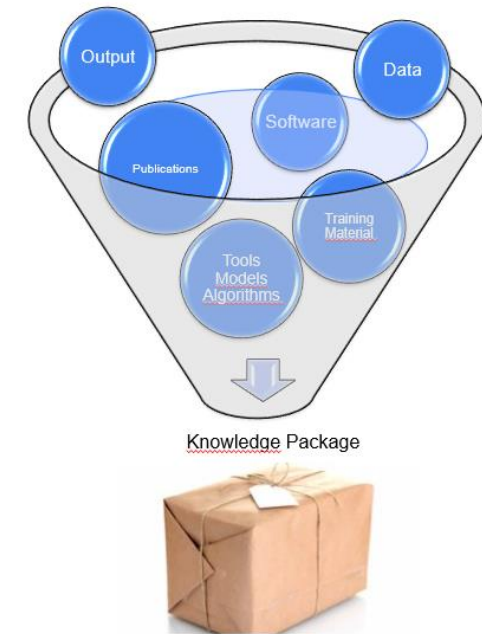
<https://gkhub.earthobservations.org>

What is the GEO Knowledge Hub

Knowledge Resources – Sen2Agri example



GEO Knowledge Package



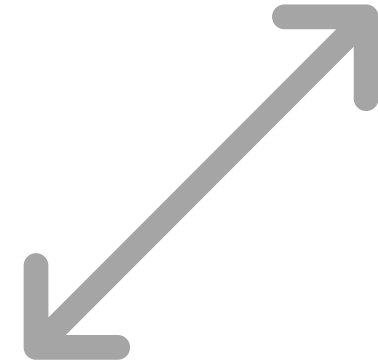
The **GEO Knowledge Hub (GKH)** is a **open source central cloud-based digital library**, powered by Invenio RDM, providing access to **Earth Observations applications** developed by the GEO Work Programme Activities and others.

The scope of the GKH is to promote the **replicability and re-usability** of **EO Applications** by sharing with the end users, all the Knowledge Resources essential to fully understand and re-use them. All knowledge resources of a registered EO application, will be openly shared, curated and organized into a Knowledge Package, including: **(A)** Research papers and reports describing methods and results; **(B)** Software algorithms and cloud computing resources used for processing; **(C)** In situ and satellite imagery data used and; **(D)** Results for verification.

GEO Knowledge Hub mission



GEO Knowledge Hub host open EO applications from the GEOWork Programme and other partners that can be re-used in other areas of the world.



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GEO Knowledge Hub features



Packages



Resources

Easy to use



DOI

Version
control

**Preservation
friendly**



Text search

Spatial search

**Powerful search
technology**



**Based on Open source
software**

«EO Operationalization towards Impact»

How to accelerate impact?

How to empower countries to prevent, face and respond to major environmental and societal challenges?

Provide "The Place" to find the available open EO based applications



GEO Knowledge Hub Users Outreach & Uptake

Target audience:
technical staff



Recommendations for the countries is to increase their engagement with the global geospatial community while developing a national coordination mechanism to ensure science-based and user/driven application of EO

GEO international partnerships and public private partnerships



Why do we need the GEO Knowledge Hub?



The GEO Knowledge Hub as GEO Collective Intelligence

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Thank you