GEO Knowledge Hub to preserve and share EO Applications: Introduction and practice

GEO Knowledge Hub team

Date: 11th of September from 14:00 to 16:00 (CET)

Where: EuroGEO Workshop - Online

Agenda

Introduction of EuroGEO and partners

Introduction to the GEO Knowledge Hub

Hands-on presentation of the GEO Knowledge Hub

Best practices for creating Knowledge Packages

GEO Knowledge Hub team

Paola de Salvo

Kalamkas Yessimkhanova

Felipe Carlos

We are not alone! Our team thanks everyone who worked with us, especially Gilberto Camara, Douglas Cripe, Gilberto Queiroz, Florian Franziskakis, Hendrik Baeyens, and the InvenioRDM community

Material availability

All the materials used during this workshop are available in the following GitHub repository:

geo-knowledge-hub/geo-knowledge-hub-workshop

Group on Earth Observations (GEO)

GEO is a partnership of more than 110 national governments and in excess of 100 Participating Organizations

GROUP ON EARTH OBSERVATIONS

Group on Earth Observations (GEO)

GEO envisions a future where **decisions** and **actions** for the benefit of humankind are **informed** by coordinated, comprehensive and sustained **Earth observations**

GROUP ON EARTH OBSERVATIONS

Group on Earth Observations (GEO)

GEO Data Sharing principles

GROUP ON EARTH OBSERVATIONS

23rd Programme Board Meeting – 21-22 June 2022 PB-23.12

Revised GEO Data Sharing and Data Management Principles

This document is submitted by the Secretariat to the Programme Board for decision.

1 INTRODUCTION

In 2015, the GEO Data Management Principles Task Force was tasked with defining a common set GEO Data Management Principles[1]. These principles address the need for discovery, accessibility, usability, preservation, and curation of data and related resources that are shared. Such resources also should be shared as open data in accordance with the GEO Data Sharing Principles[2]. The GEO Data Management Principles complement the FAIR Principles and TRUST Principles, which also are being adopted across research communities. The GEO Data Management Principles can be applied to the entire data management lifecycle,

Open Knowledge Statement

GROUP ON EARTH OBSERVATIONS

21st Programme Board Meeting – 28-30 September 2021 PB-21.17

GEO Statement on Open Knowledge

This document is submitted by the Secretariat to the Programme Board for decision.

1 INTRODUCTION

This document presents a revision of the GEO Statement on Open Science (see Annex A) that was presented to the Programme Board at its 19th meeting in January 2021. Based on consultations with the GEO community, the Secretariat proposes that the statement be reformulated to focus on "Open Knowledge". This concept, while inclusive of Open Science, is considered to be more closely aligned with the GEO Mission and Vision, which aim to support decision making and not only or primarily science.

Group on Earth Observations (GEO)

Download the GEO Work Programme 2023-2025 Summary Document, which contains short descriptions of each of the GEO Flagships, Initiatives, Pilot Initiatives and Regional GEOs that comprise the GEO Work Programme.

Group on Earth Observations (GEO)

GROUP ON EARTH OBSERVATIONS

EuroGEO

AmeriGEO
Earth Observations for the Americas

AfriGEO
Earth Observations for Africa

AOGEO
Earth Observations for Asia-Oceania

EO Applications

Digital Earth

LAND DEGRADATION NEUTRALITY

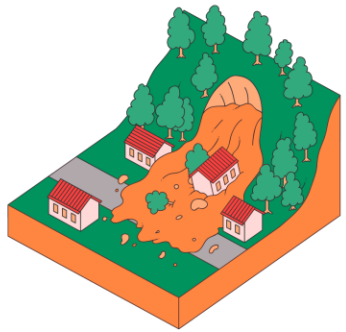
GLOWS

Afri GEO

Ameri GEO

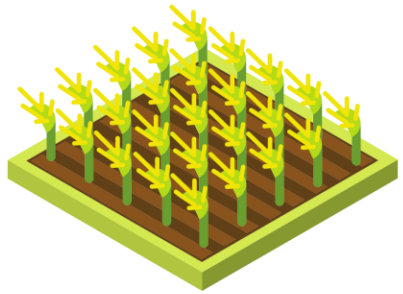
AO GEO

EuroGEO



Disasters

Resilient cities



Food security

GEO GROUP ON EARTH OBSERVATIONS

Open Data

Knowledge

EO Applications

Digital Earth

LAND DEGRADATION NEUTRALITY

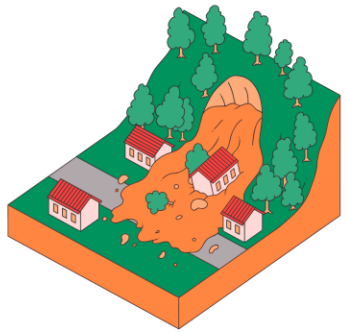
GLOWS

Afri GEO

Ameri GEO

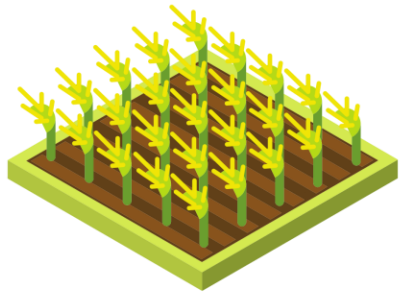
AO GEO

EuroGEO



Disasters

Resilient cities



Food security

GEO GROUP ON EARTH OBSERVATIONS

Open Data

Knowledge

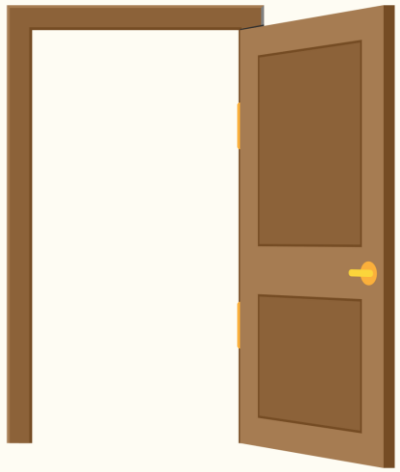
GEO holds valuable **knowledge** and **solutions** that cannot remain hidden

We have the **responsibility** and urgency to make those open applications known and used

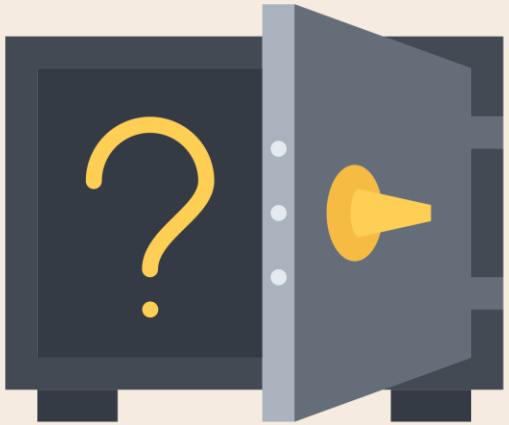
GROUP ON EARTH OBSERVATIONS

GEO Knowledge Hub

Open



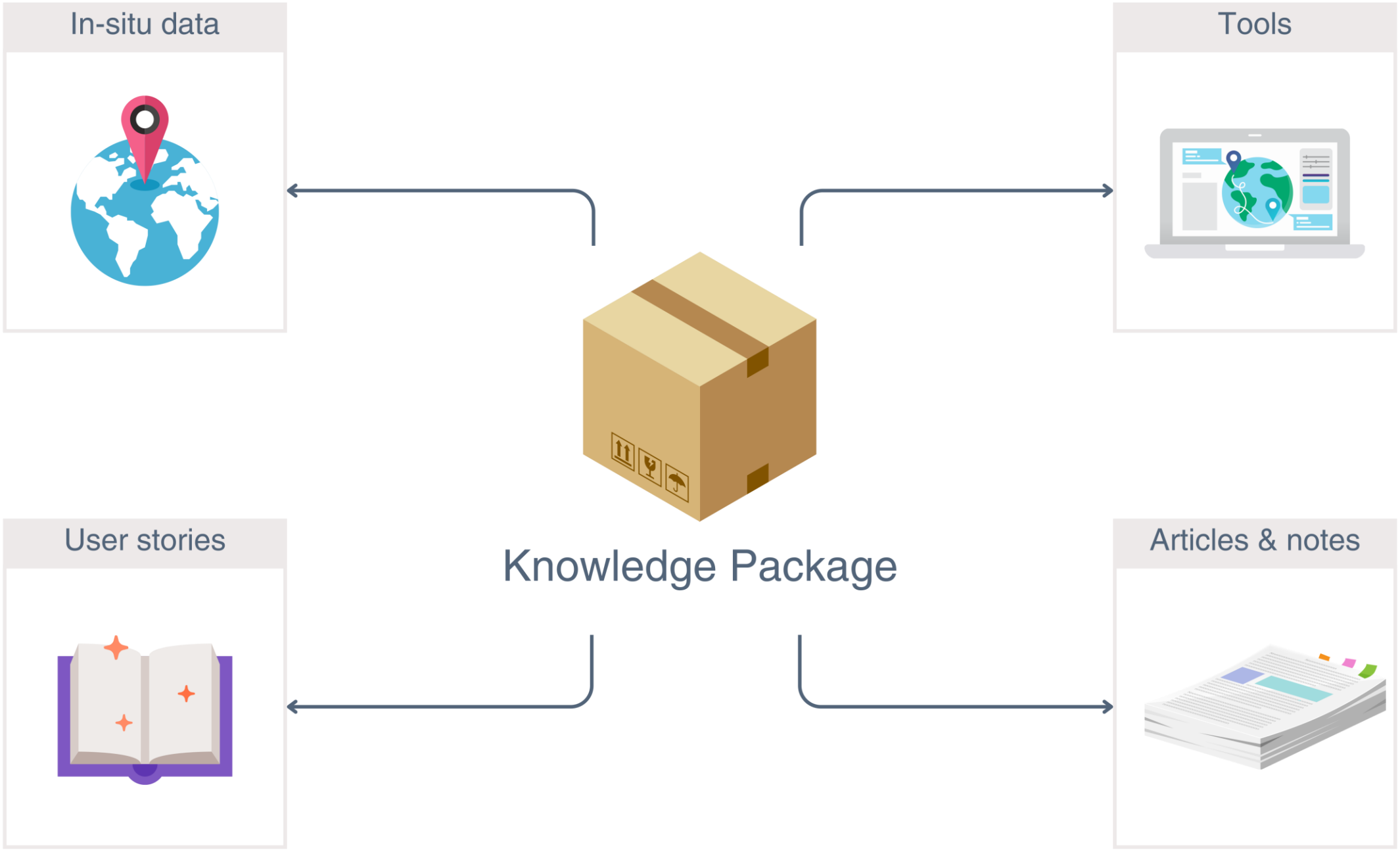
Preserve



Use

Knowledge Package


EO Application
Knowledge Package
Community


In-situ data
Tools
Knowledge Package
User stories
Articles & notes

154 Knowledge Packages

816 Knowledge Resources

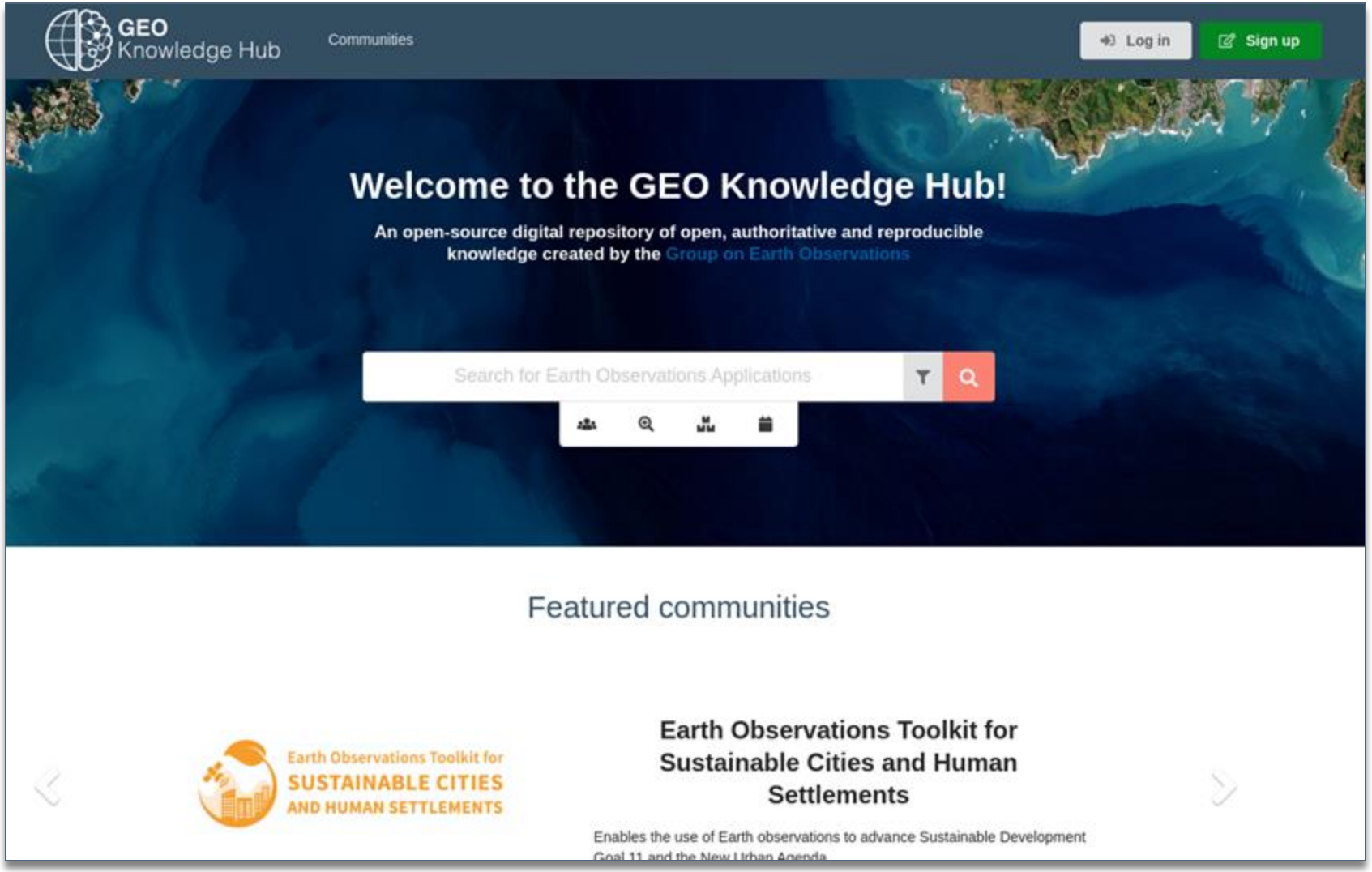
Documents

Code

Data

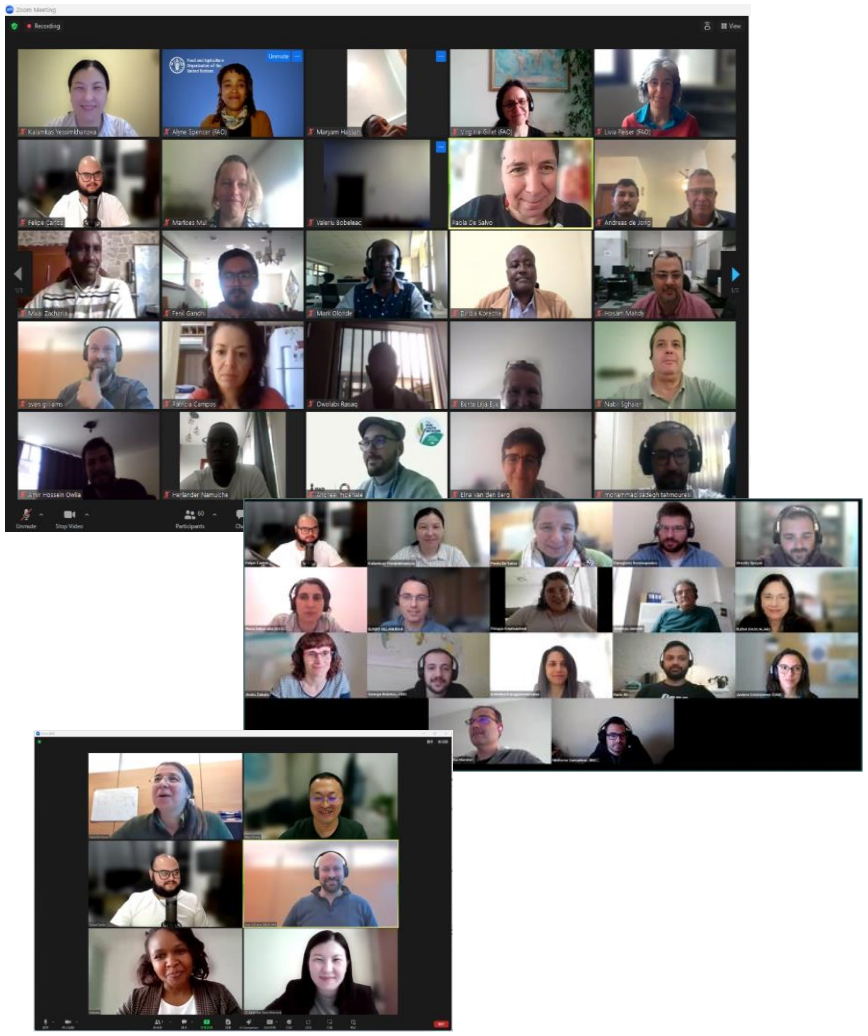
Video

gkhub.earthobservations.org



Spreading Knowledge

Spreading Knowledge



Organization of webinars to showcase knowledge shared in the GKH

Highly involvement of the Knowledge Providers

Spreading Knowledge

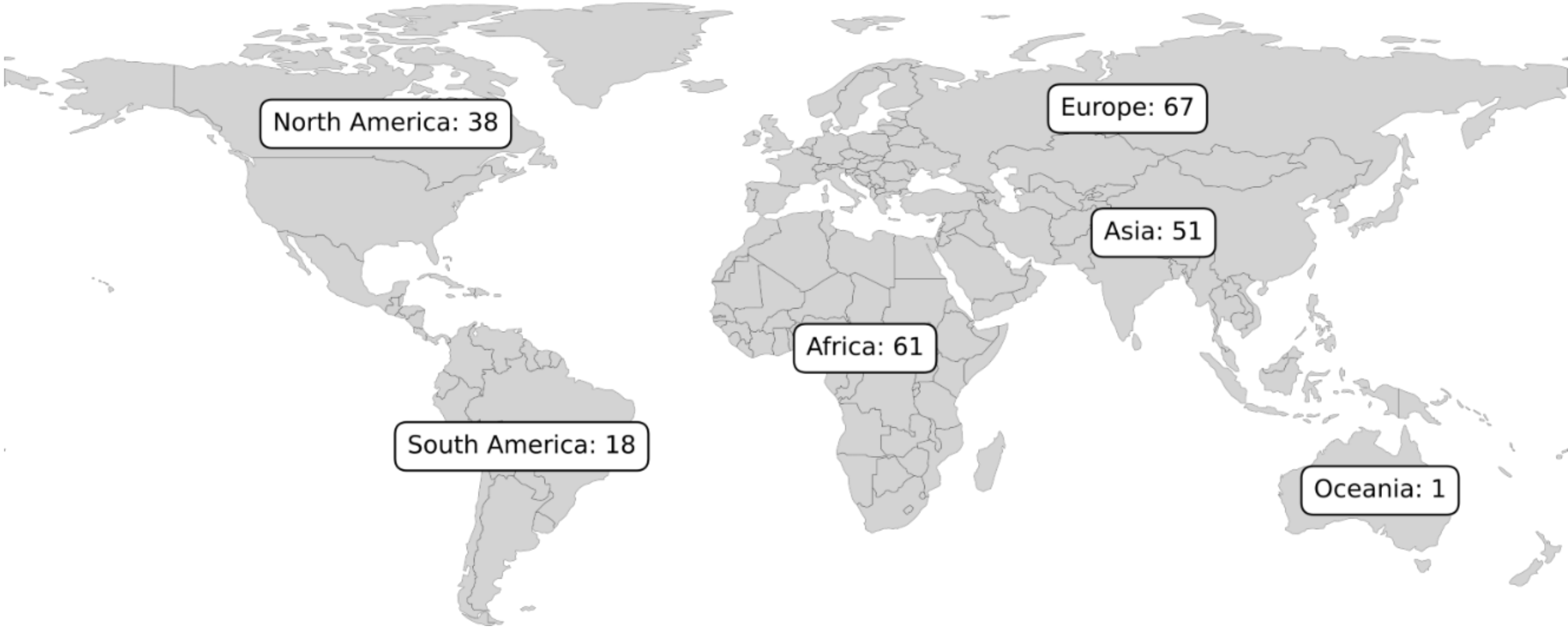
Open EO Applications for Food Security - Webinar series

240
Attendees

61
Countries

150
Organizations

Spreading Knowledge



Spreading Knowledge

100%

Want to keep updated on GEOGLAM CapDev webinars

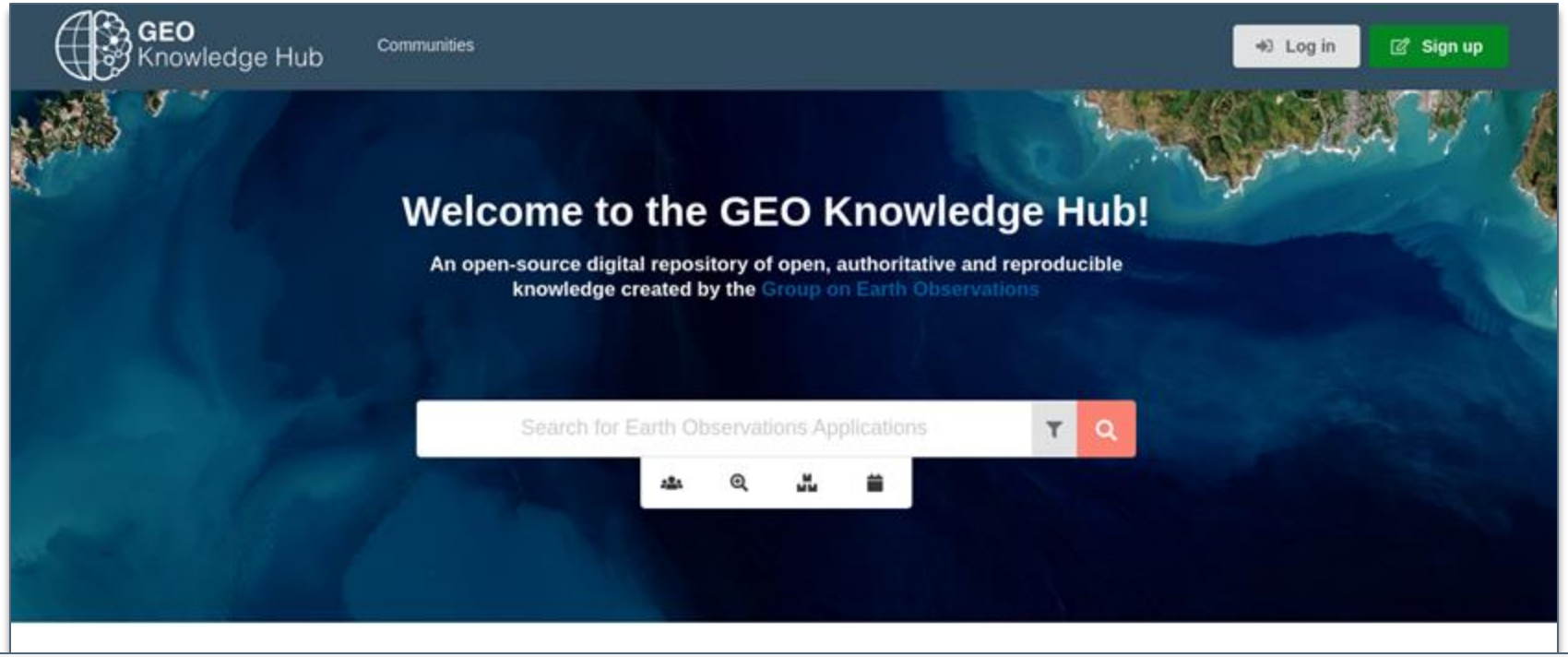
100%

Want to keep updated on GEOGLAM Data Apps webinars

Questions

Hands-on presentation of the GEO Knowledge Hub

Workshop instance



Practical demonstration

Creating Knowledge Packages

Creating Knowledge Packages

Creating Knowledge Packages

Dataset

Software

Publication

Creating Knowledge Packages

Dataset

Software

Publication

Creating Knowledge Packages

Dataset

Software

Publication

Creating Knowledge Packages

Dataset

Software

Publication

Creating Knowledge Packages

Rest API

Rest API

External systems

Rest API

External systems

Bulk Package Loader

Rest API

External systems

Bulk Package Loader

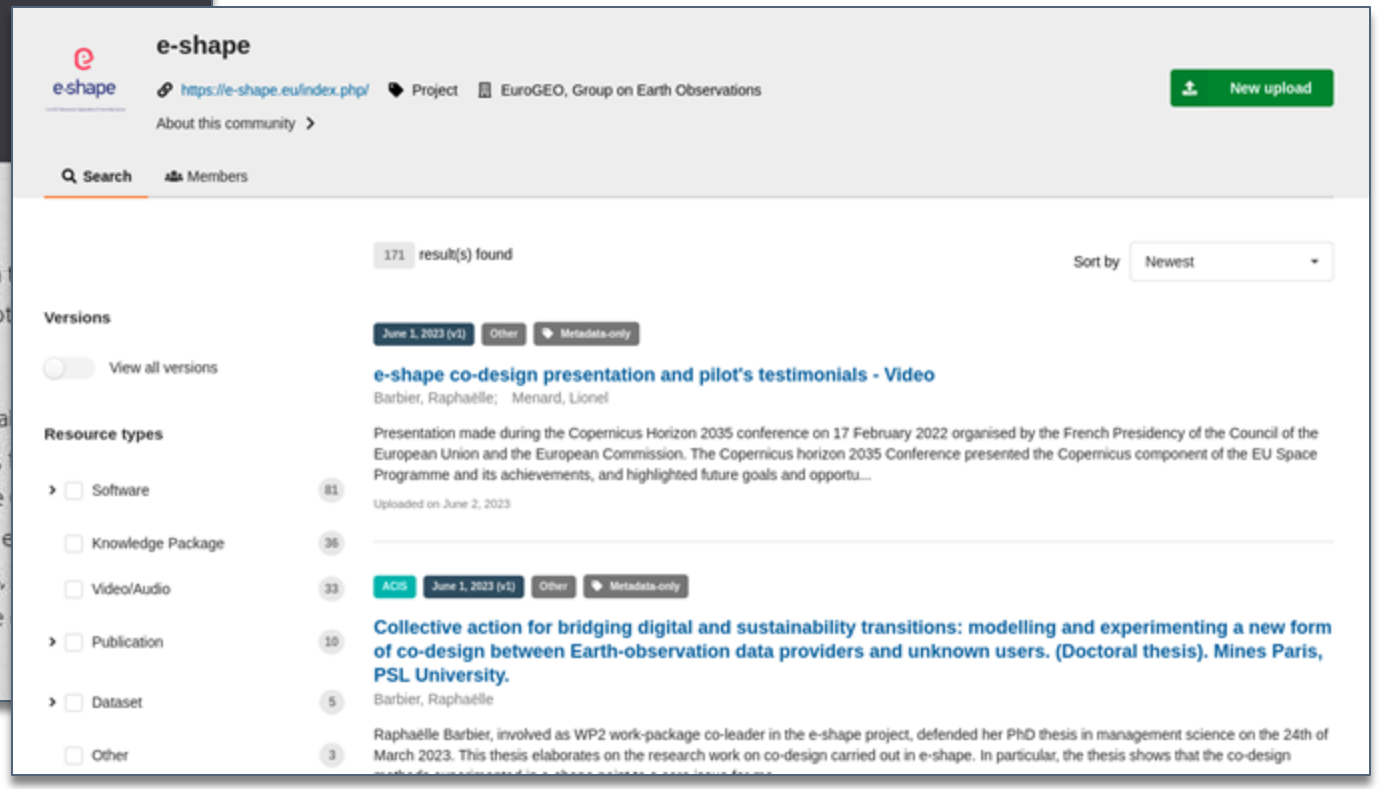
OGC/CSW Package Loader (Harvester)

Using the Rest API

Meet the e-shape legacy through the GEO Knowledge Hub

As a European flagship project contributing to EuroGEO, the e-shape project has linked with t
Knowledge Hub (GKH) to support the promotion and the results dissemination of the 37 pilot
showcases, which have been developed during the project life time.

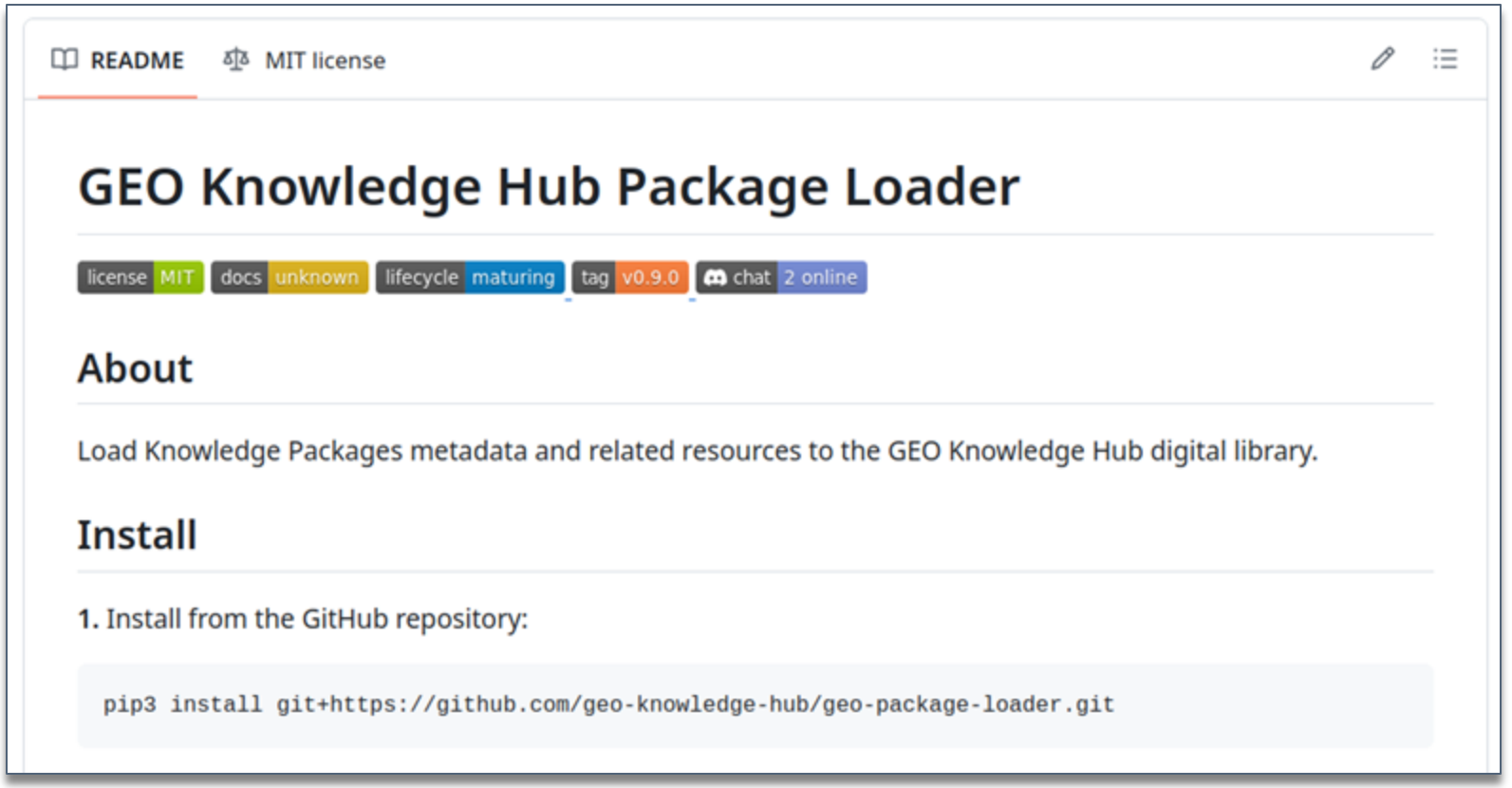
The approach relies on the use of the webservice-energy GEO community catalogue to initia
creation of one metadata record per pilot (https://tinyurl.com/5dk34cks). Metadata records,
19139 and/or INSPIRE Network Service profiles, have been created having the concept of the
granule in mind. It means, beside the access to the given application, to provide a bucket of e
including, scientific communications, DOI, videos support presentations, Jupyter Notebooks,
repositories, OGC Web Services GetCapabilities and output result datasets samples. A prime
enriched metadata record is available here: https://tinyurl.com/3bjd7ymu



tinyurl.com/e-shape-gkh

gkhub.earthobservations.org/communities/e-shape

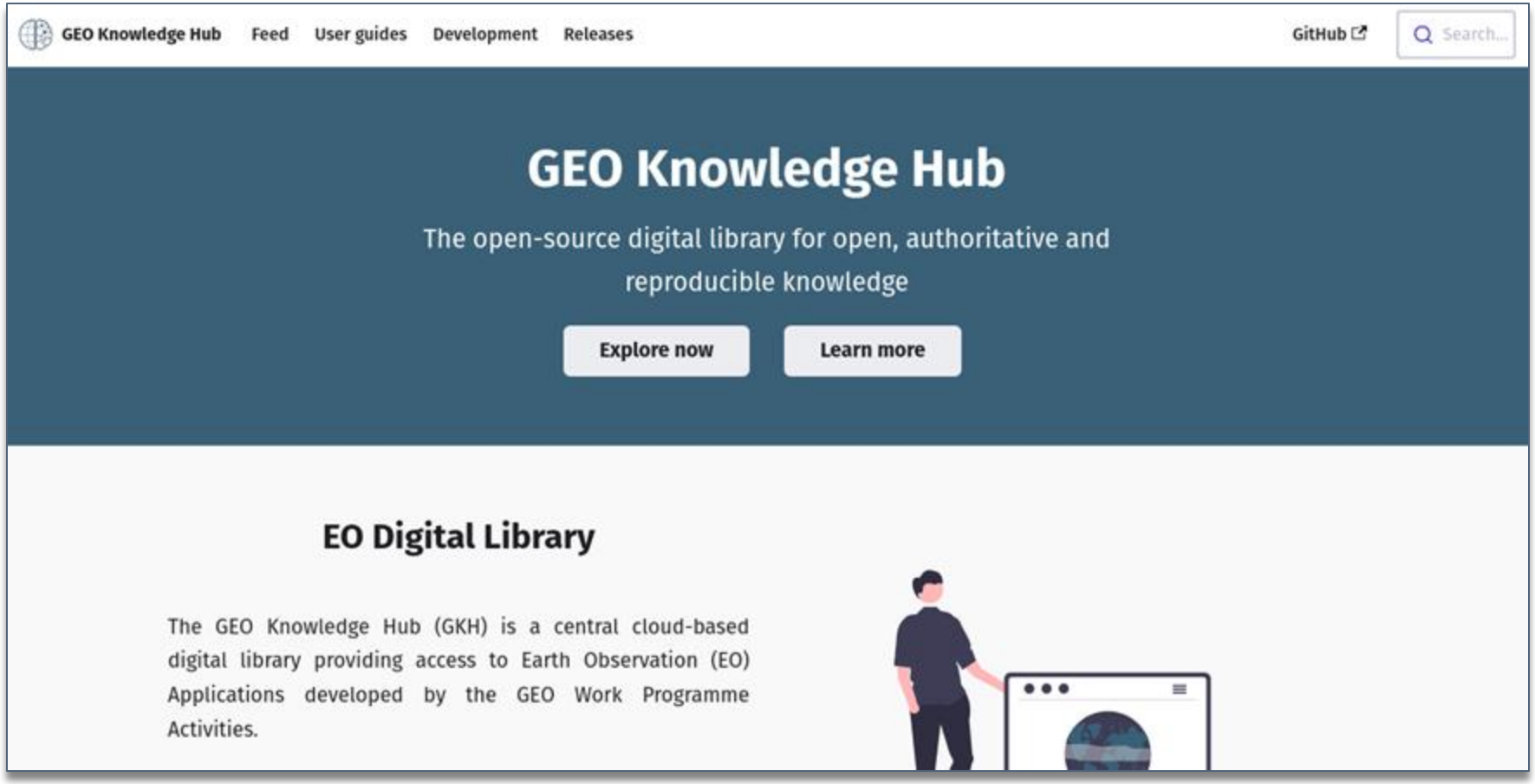
Using the Rest API



github.com/geo-knowledge-hub/geo-package-loader

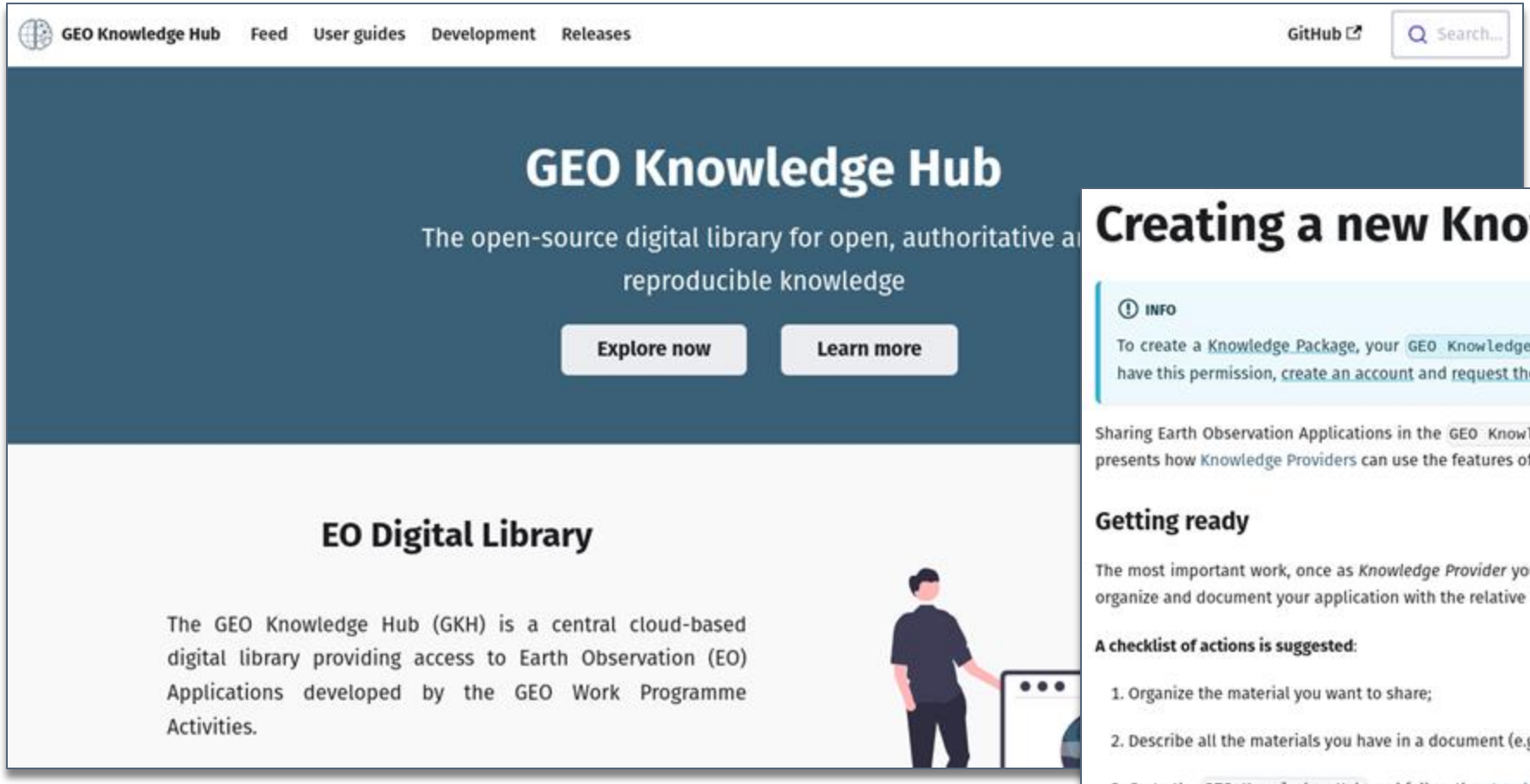
Documentation

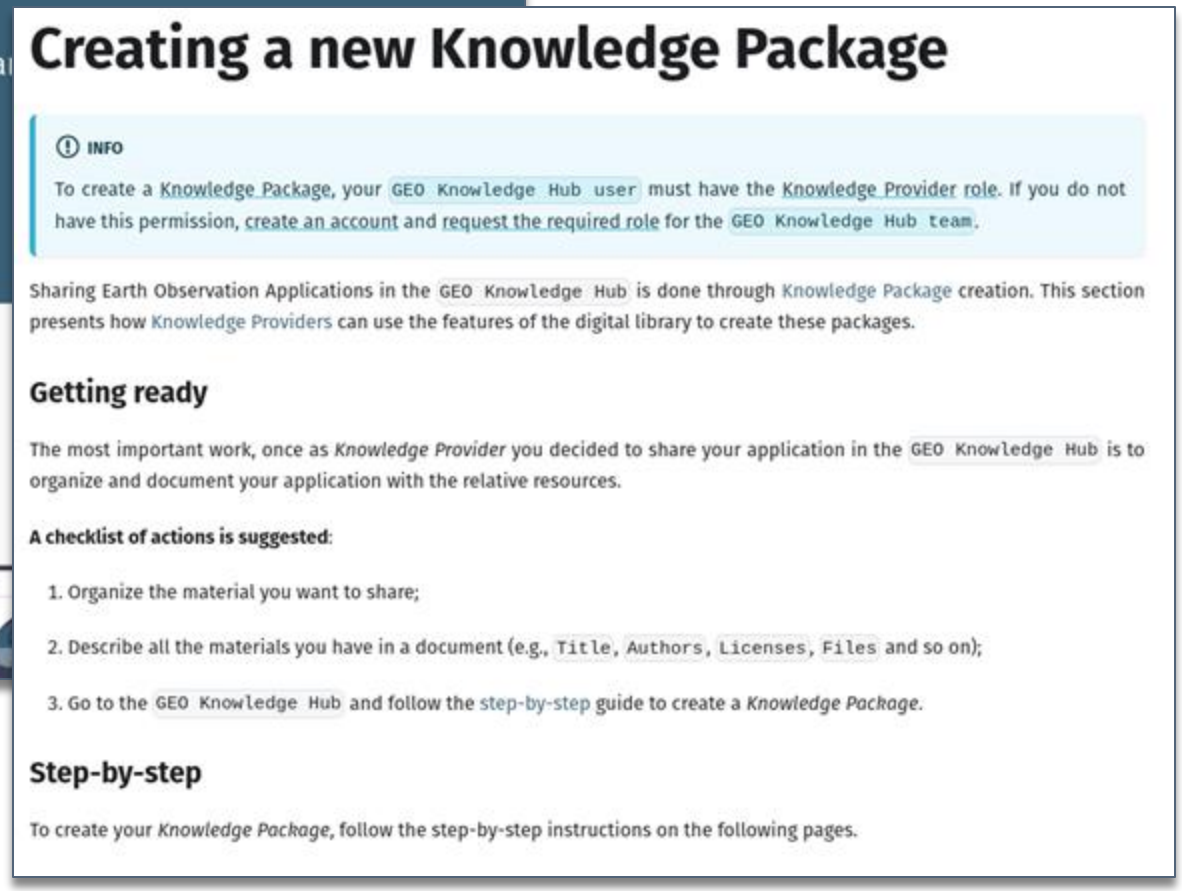
Documentation



gkhub.earthobservations.org/doc

Documentation





gkhub.earthobservations.org/doc

Best practices for creating Knowledge Packages

Clear Documentation

Descriptive Metadata & Data Accessibility

Metadata

Title

Description

Authors (Creators and contributors)

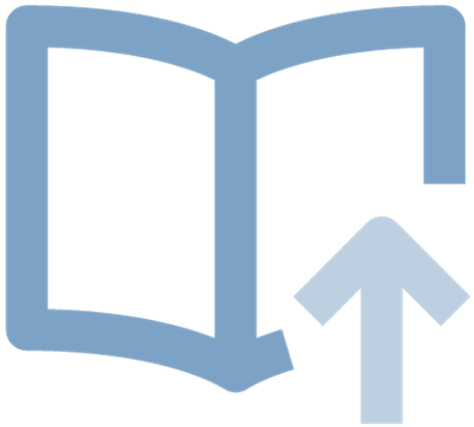
DOI

Metadata

Title	Date	Focus area and engagement priorities
Description	Geospatial info	GWP
Authors	License	Version
DOI	Related links	Target audience

GEO Data Working Group. (2024). GEO Data Sharing and Data Management Principles. GEO Knowledge Hub. https://doi.org/10.60566/3p7vv-ykj55

Make publications visible



Provide access to training materials

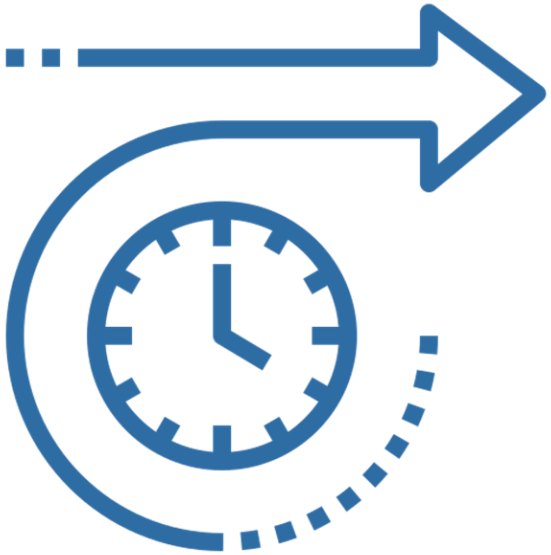
Ensure effortless access to the full range of products

Providing User Stories

Licensing

GEO Data Working Group - Law and Policy Subgroup. (2023). **Data Licensing Guidance.** Geneva, Switzerland: Group on Earth Observations Secretariat.
https://doi.org/10.60566/c3yd5-2s987

Interact with community

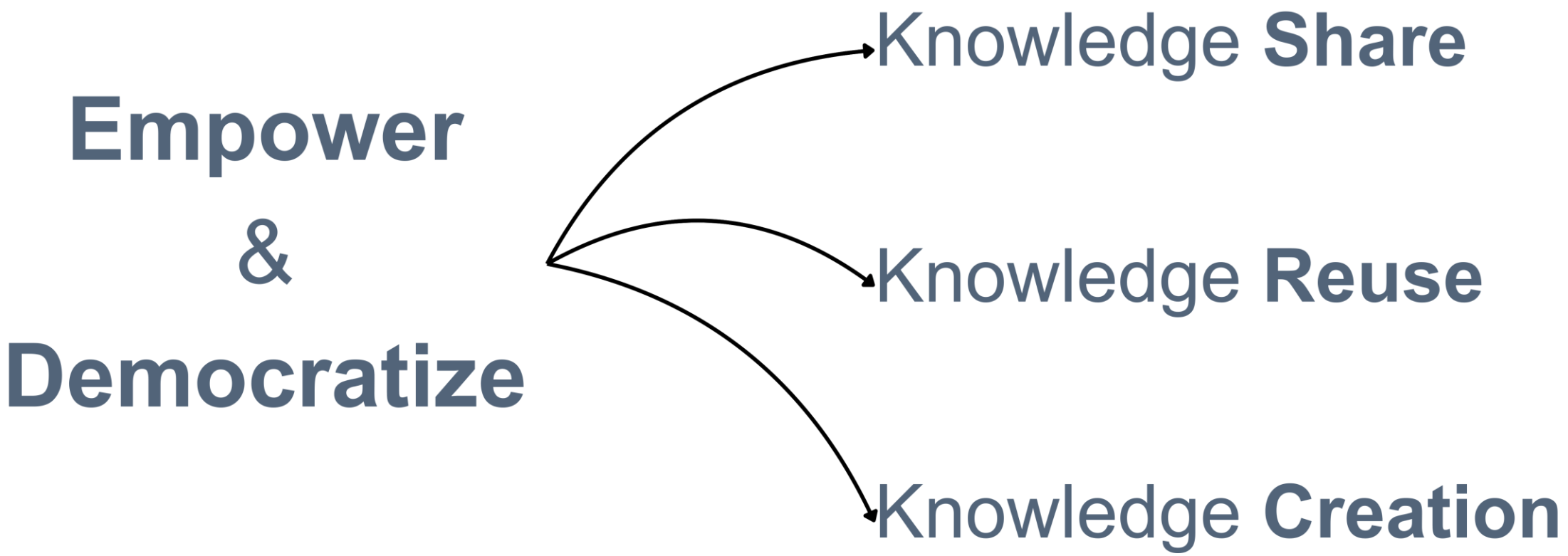


Think in the long-term

Always Up-To-Date

Supported by the GKH Link Checker automated tool

Witnessing a paradigm shift in GEO supported by the GEO Knowledge Hub



We build with ❤️ **together** with the GEO Community

(1) Community effort

(2) On-demand approach

(3) Let’s go together

Thank you