OpenSearch API for Earth Observation
DataHub service

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**OpenSearch** is a collection of technologies that allow websites and search engines to publish search results in a standard and accessible format.
Since OpenSearch is so important to the EO community, the Open Geospatial Consortium (OGC) published the OpenSearch Geo and Time extensions standard to the query protocol to provide a very simple way to make spatial and temporal queries to a repository of geospatial content.
In this video, Marie-Françoise of the Open Geospatial Consortium (OGC), e-shape and partner in NextGEOSS, talks about the background of the OpenSearch API from a standards point of view and a good open API for systems of systems.
The NextGEOSS Datahub is based on **CKAN**, a fully-featured, mature, open source data management solution.

The **CKAN** architecture is specially designed to enable and encourage the creation and use of plugins to enhance and extend the platform's feature and functionality. All the plugins are freely available and open source and can themselves be modified and extended.
OpenSearch has been implemented in the NextGEOSS Data Hub to support client applications and developers who need a standard-based way of interacting with it.
The OpenSearch extensions that have been implemented for the NextGEOSS DataHub are following the OGC standards and were validated to be fully compatible with the standard.

The correct implementation of OpenSearch, following standards and compliance tests, allows us to easily integrate with other systems.
2-Step Search

How does it work?

- A general **description document** is provided with information about the **collections** that are available for searching.
- For each collection there is a separate description document providing further information about the collection specific parameters.

More information available at:

https://catalogue.nextgeoss.eu/opensearch
Accessing OpenSearch UI

- If you are not very familiar with OpenSearch and you need an OpenSearch response, you can visit the Data Hub and **create your query from the UI**

- The Data Hub search page provides an **OpenSearch button**, which translates all your filtering and searching on the UI to an OpenSearch API
OpenSearch API improvements

We are constantly adding more data connectors to our portal and new collections that will become available through the OpenSearch API.

This will allow us to provide a variety of data for the users and accommodate their needs.

Additional collections are planned to be added to the datahub.
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