GeoNetwork Opensource
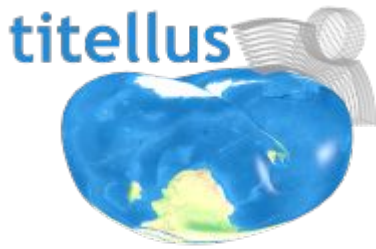
What's Happening and Upcoming

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FOSS4G Bucharest - 2019

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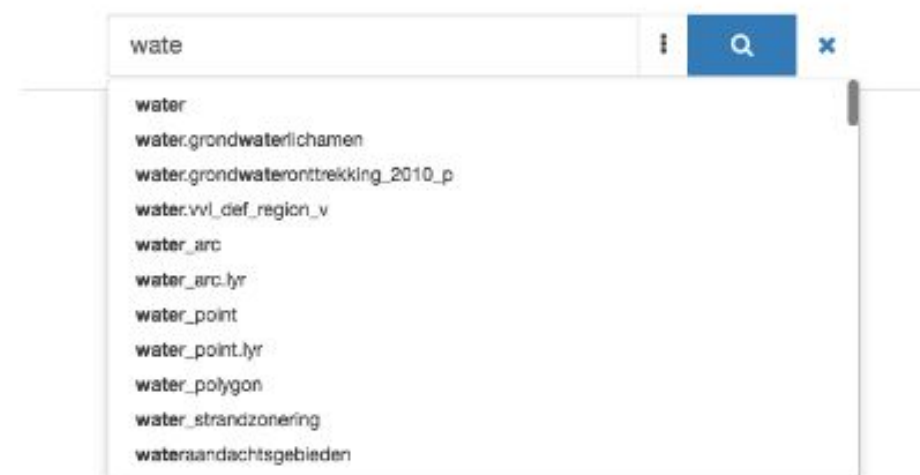
GEOCAT

What is Geonetwork?

GeoNetwork is a catalog application to **manage spatially referenced resources**. It provides powerful **metadata editing** and **search** functions as well as an interactive web map viewer. It is currently used in **numerous Spatial Data Infrastructure initiatives across the world**.
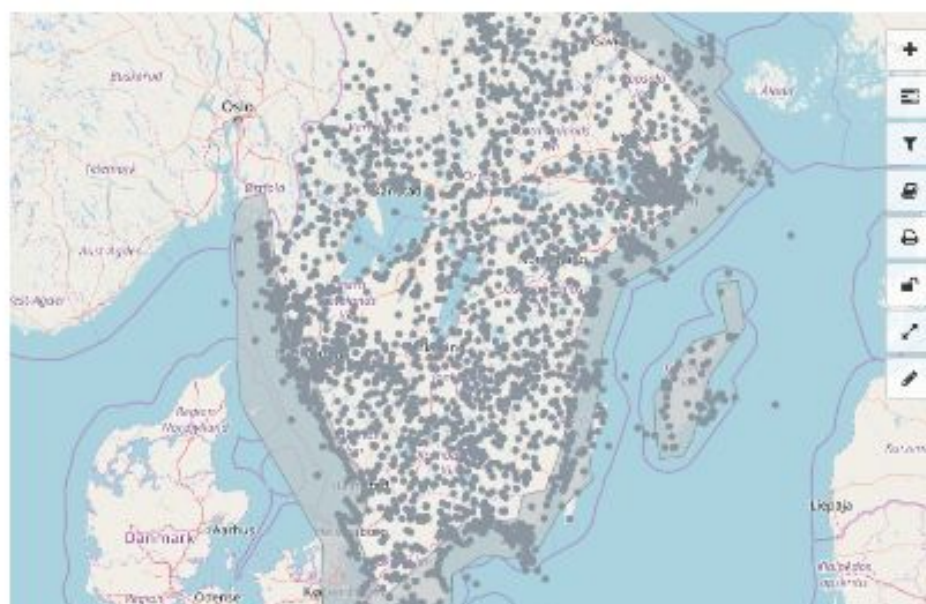
Find & get information

GeoNetwork provides an easy to use web interface to search geospatial data across multiple catalogs. The search provides full-text search as well as faceted search on keywords, resource types, organizations, scale, … Users can easily refine the search and quickly get to the records of interest.

GeoSpatial layers, but also services, maps or even non geographic datasets can be described in the catalog. Easily navigate accross records and find sources or services publishing a dataset.

Make your maps

The interactive map viewer based on [OpenLayers 3](#) provides access to OGC services (WMS, WMTS) and standards (KML, OWS). Connected to the catalog, users can easily find new services, layers and even dynamic maps to combine them together. User maps can be annotated and printed and shared with others.

GeoNetwork is...

- It is **free** and **open-source** and **OSGeo project.**
- The founder of project is Jeroen Ticheler, GeoCat CEO.
- Adopted in numerous spatial data infrastructure initiatives across the world.
- Is the geospatial catalog of choice in most European National portals and **INSPIRE ready**.
- A growing community of users and developers.

GeoNetwork is a catalog...

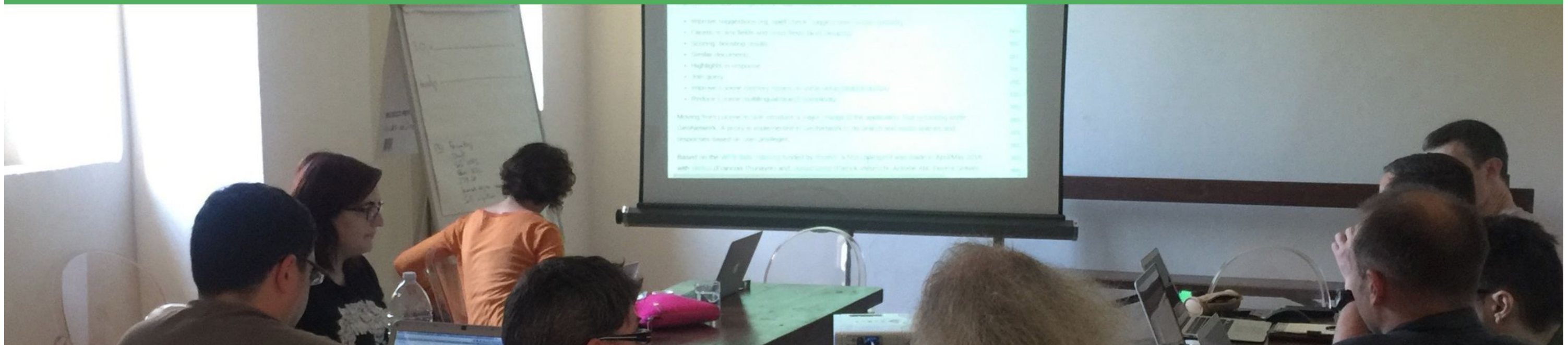**...to manage and expose spatially referenced resources.**

- A catalog is a way to share, organize and categorize resources.
- Made for records that describe geospatial data, geospatial services, and related resources.
- Facilitate discovery of spatial resources (datasets/services) in any spatial data infrastructure.
- Supports with a huge variety of metadata standards.

Home » Projects » GeoNetwork

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GeoNetwork

GeoNetwork is a catalog application to **manage spatially referenced resources**. It provides powerful **metadata editing** and **search** functions as well as an interactive web map viewer.

It is currently used in **numerous Spatial Data Infrastructure initiatives across the world**.

GeoNetwork
open source

Try our demo   Visit our website

What's happening at GeoNetwork

GeoNetwork 3.8 release

Bolsena Codesprint

- At the codesprint we prepared the 3.8 release, which brings a new workflow/draft module
- After a number of years the terrestris team joined the sprint again, we had interesting discussions about GeoStyler and Shogun
- GeoStyler is a json-based styling format, with a library to transform the format to Mapbox and SLD

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OSGeo Google Docs Project

- GeoNetwork participates in Google Docs project
- A team is starting up to review and improve the documentation
- A technical writer is assigned to support the team
- First results in upcoming OSGeo Live

Elastic Sprint

- A group is working on the **4.0** release.
- 4.0 is a serious rewrite of the search index, which will be based on **Elasticsearch.**
- An elastic code sprint was organised in Chambery, funded by the **European Environment Agency**.

ElasticSearch

- Improve performances on large catalogue and allowing clustering,
- Solve limitations in current search, which in Lucene would require major efforts.

- Moving to ElasticSearch will bring a lot of flexibility on configuring the indexing and search in the catalogue.

- Timeframe uncertain, funding required.

GeoNetwork Enterprise

- GeoCat crafted a new Commercial Of The Shelf product (COTS); **GeoNetwork Enterprise**.

- Enterprise is released under the same GPL2 license as GeoNetwork Community.

- Enterprise releases follow a bit after community releases, guarantee maximal resolution time for incidents and have a longer support period.

- GeoNetwork Enterprise is also available as '*Software As A Service*' (cloud service) in the **GeoCat Live** solution.

GeoDCAT-AP

- Flemish Government group contributed a large work, a GeoDCAT-AP schema plugin and some related fixes to the core product.
- **GeoDCAT-AP** is an RDF schema defined by Europe which extends DCAT to capture most of the **INSPIRE** and **ISO 19115/19119** standards.
- GeoNetwork is XML oriented, not RDF. To be able to ingest RDF, a procedure was developed to render any RDF in RDF/XML following a certain pattern so GeoNetwork was able to process the XML with an XML schema.

ISO19139+GDPR schema

- EU GDPR (privacy) regulation mandates organisations to set up a registry of data-provenance.
- A logical choice is to embed such a registry in an existing data registry
- GeoCat worked with the **Dutch National Health Institute** to create a **GDPR** profile for GeoNetwork.
- The GDPR data model is quite similar but does not fully fit in the ISO19139 model, therefore a GDPR extension was created.
- Additional benefit is that the data portal has gotten some improved visibility within the organisation.

Lightweight INSPIRE harmonisation

- We see a lot of INSPIRE harmonisation at the end of the data pipeline
- Data may get lost in the harmonisation process (contradicts open data principles)
- Rule of thumb: try to reverse the workflow (import inspire data), verify success rate
- Our strong advice is to publish (also) the as-is data
- Investigate an RDF approach within GeoNetwork to link column definitions in as-is data to INSPIRE ontology using ISO19110 metadata
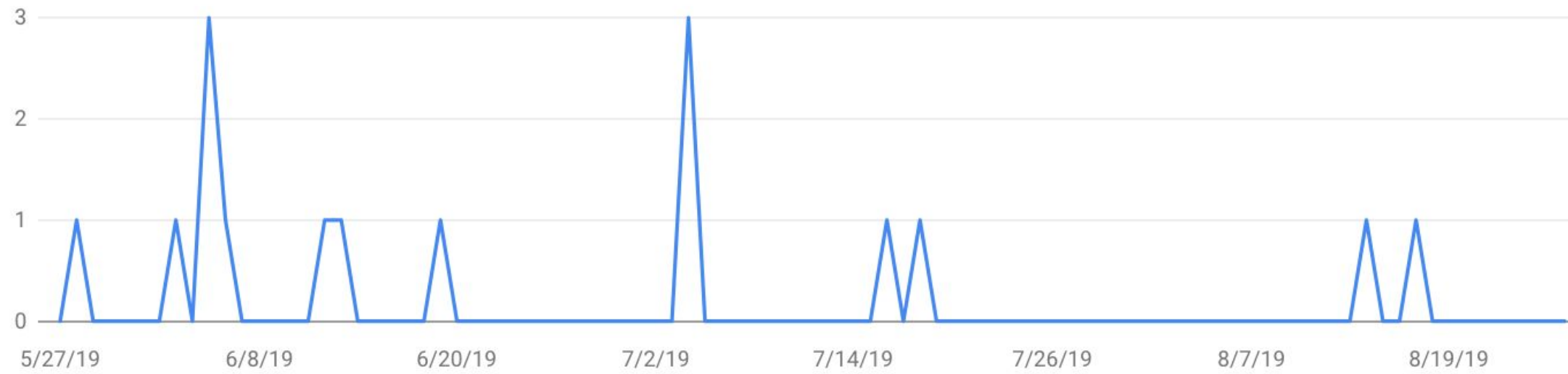
Schema.org & Google dataset search

- [Research from UK Geospatial Commission](#) showed that 75% of the traffic to the [national catalogue](#) arrived at the catalogue from a search engine
- GeoNetwork 3.0 added crawling
- Problems with spidering continued up to 3.6.1 due to low interest from users and developers.

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Performance

— 16 total web search clicks
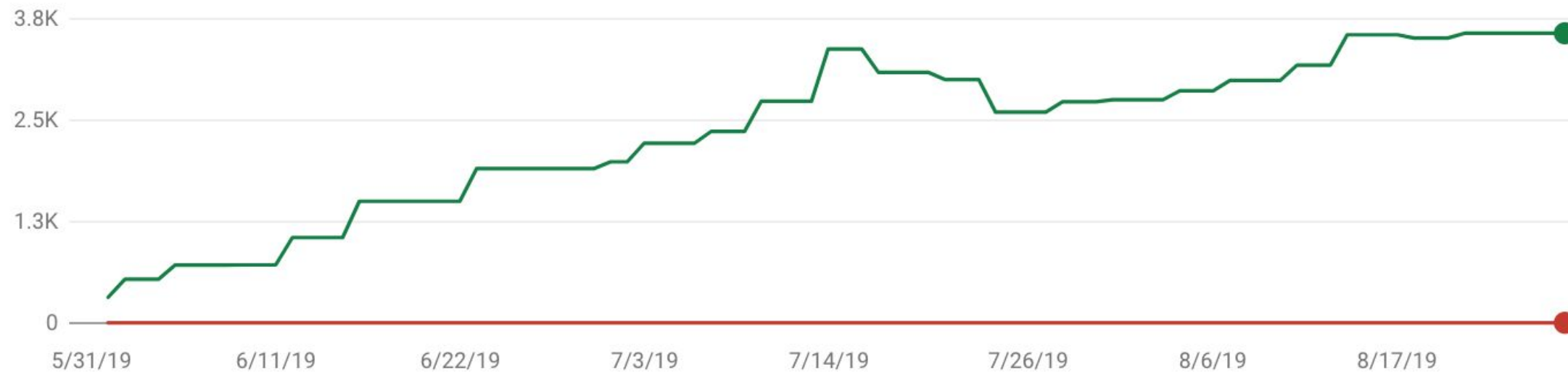
3

2

1

0

5/27/19　　6/8/19　　6/20/19　　7/2/19　　7/14/19　　7/26/19　　8/7/19　　8/19/19

Coverage

— 0 pages with errors　　— 3,573 valid pages

3.8K

2.5K

1.3K

0

5/31/19　　6/11/19　　6/22/19　　7/3/19　　7/14/19　　7/26/19　　8/6/19　　8/17/19

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Schema.org

- schema.org/Dataset annotations provides structured data to search engines
- In 3.8 the schema.org microdata was replaced for embedded json-ld
- Schema.org has appeared to be fragile, we should introduce integration tests to tackle regression risks

rijkswaterstaat

About

100+ results found

Waterstanden en afvoeren actueel - Rijkswaterstaat

data.overheid.nl
ngr.geocat.live

Updated 15 feb. 2017

Rijkswaterstaat Leefomgeving - Afvaldatabase

data.overheid.nl
ngr.geocat.live
+1more

Updated 1 aug. 2015

Landelijk zoet en zoutwatermeetnet -...

data.overheid.nl
cloud.csiss.gmu.edu
+1more

Updated 1 jan. 1989

Waterstanden en afvoeren actueel - Rijkswaterstaat

Explore at data.overheid.nl

Explore at ngr.geocat.live

Dataset updated 15 feb. 2017

Dataset provided by

Rijkswaterstaat

License

CC-0http://creativecommons.org/publicdomain/zero/1.0/deed.nl

Available download formats from providers

ogc:wms (KB), ogc:wfs (KB), zip (KB), json (KB)

Description

Actuele waterstanden en andere water gerelateerde metingen. Metingen gemiddeld over 10 minuten (gemidde voor tot 5 minuten na de volgende tijdstippen 00, 10, 20, 30, 40, 50). In een apart .ADM bestand staat de meta-

What is new in GeoNetwork 3.8

GeoNetwork 3.8 release

Search ...

🔍   ✕

▼ 🛒 Nothing in basket

☐ ▾   « ‹   13 results ▾   › »   Sorted by relevancy ⇕   ▦▾

▼ Q Filter

⊕ Expand   ⊖ Collapse

⊘ TYPE OF RESOURCES

☐ Collection session (2)
☐ Dataset (8)
☐ Feature catalog (1)
☐ Service (2)
☐ Service-view (1)
1 more
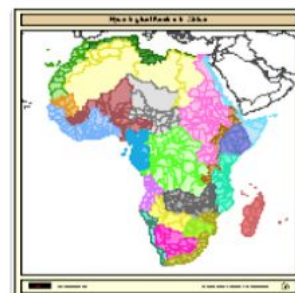
⊘ AVAILABLE ACTIONS

☐ Downloadable (2)
☐ Viewable (4)

⊘ TOPICS

☐ Boundaries (4)
☐ Environment (1)
☐ Geoscientific information (1)

☐   Categories ⊙ ⊜ ⚙ 💧   ★★★★★ 🌐

⊜ Hydrological Basins in Africa (Sample record, please remove!)

Major hydrological basins and their sub-basins. This dataset divides the African continent according to its hydrological characteristics. The dataset consists of the following information:- numerical code and name of the major basin (MAJ_BAS and MAJ_NAME); - area of the major basin in square km (MAJ_AREA); - numerical code and name of the sub-basin (SUB_BAS

Completed

✎   📌▾   ⚲▾   🌐   📥▾

☐   Categories ⊜   ★★★★★ 🌐

🚚 Geoscience Australia's Open Day Photographs 26th...

During National Science Week on Sunday 26th August 2007, Geoscience Australia opened its doors to the community to showcase a diverse range of work activities. Members of the public had the opportunity to discover how earthquakes are detected, pan for gold, tour the building, view Australia in 3D, become a seafloor detective and talk to the people who work for

✎   📌▾

☐   Categories ⊜   ★★★★★ 🌐

☐   Categories ⊜   ★★★★★ 🌐

Improved workflows and Draft

- This feature branch was merged after 5 lonely years
- Introduces a draft-copy mechanism. Changes on a record are stored in a draft storage, until they are approved to replace the published version.
- Feature includes a notification system around workflow (submit, approve, publish).
- Work was funded by Environment & Climate Change Canada and Flemish government and Dutch National Institute for Public Health and the Environment

INSPIRE metadata profile v2

Various improvements (we're not finished)

- Improve Anchor support
- Import vocabulaires from INSPIRE registry
- Option to use remote validator

ISO19115-1 is now default

- ISO19139 is aging fast, therefore we decided to include ISO19115-3 by default and even make it the default schema.
- 3 versions of ISO19139 exist, 2005, 2006 and 2007 which all share the same namespace
- ISO19139:2007 however includes a newer GML schema
- TC211 updated its paths to xsd last year which caused quite challenges with the various schema versions
- INSPIRE still mandates ISO19139, but a move to ISO19115-3 would probably solve a number of challenges

Come say Hi at the GeoCat booth

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