



# GIS-Normung international Spirgartentreffen, 24.03.2022

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# OGC Standards Roadmap

**OGC API:** 4 standards validated so far

- **OGC API Features**

- **Part 1: Core**
- **Part 2: CRS by Reference**

- **OGC API EDR**

- **OGC API Processes**

- **Part 1: Core**

Many specifications still under

**development**

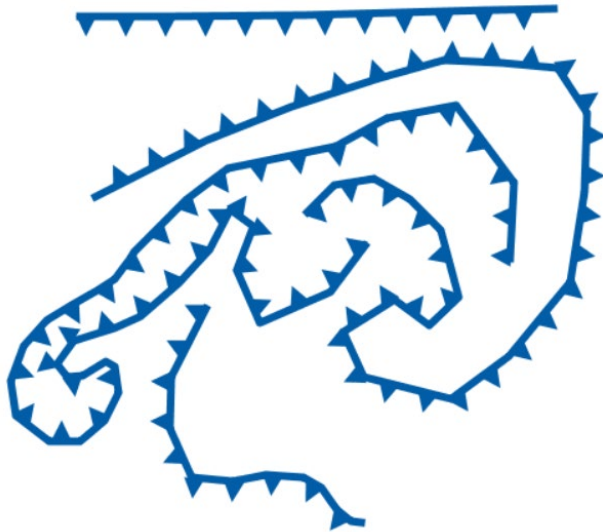
<https://www.ogc.org/roadmap>

	SWG Work / Work Item	OAB Review	OGC-NA Review	Public Review	Prepare for Approval	TC Approval to Vote	TC Vote	PC Vote	Public Release
OGC OGC API - Common 19-072		✓	✓	✓	✓	✓	✓	✓	✓
OGC OGC API - Coverages		✓							
OGC OGC API - Environmental Data Retrieval 19-086		✓	✓	✓	✓	✓	✓	✓	✓
OGC OGC API - Features - Part 1: Core 17-069		✓	✓	✓	✓	✓	✓	✓	✓
OGC OGC API - Features - Part 2: Coordinate Reference System by Reference 18-058		✓	✓	✓	✓	✓	✓	✓	✓
OGC OGC API - Features - Part 3: Filtering and the Common Query Language (CQL) 19-079		✓	✓	✓	✓	✓	✓	✓	✓
OGC OGC API - Features - Part 4: Create, Replace, Update and Delete 20-002		✓	✓	✓	✓	✓	✓	✓	✓
OGC OGC API - Features - Part 5: OpenAPI 3.1		✓	✓	✓	✓	✓	✓	✓	✓
OGC OGC API - Maps		✓	✓	✓	✓	✓	✓	✓	✓
OGC OGC API - Processes		✓	✓	✓	✓	✓	✓	✓	✓
OGC OGC API - Records		✓	✓	✓	✓	✓	✓	✓	✓
OGC OGC API - Styles		✓	✓	✓	✓	✓	✓	✓	✓
OGC OGC API - Tiles		✓	✓	✓	✓	✓	✓	✓	✓



# NGDI 20-60: Competence centre for standardisation in the geoinformation sector

- Goal: Analysis and testing of standards
- Focus on CH suitability (multilingualism, national standards, etc)
- HEIG-VD + SUPSI + UNIGE



# OGC Geopose

Position and orientation of objects in "the real world"

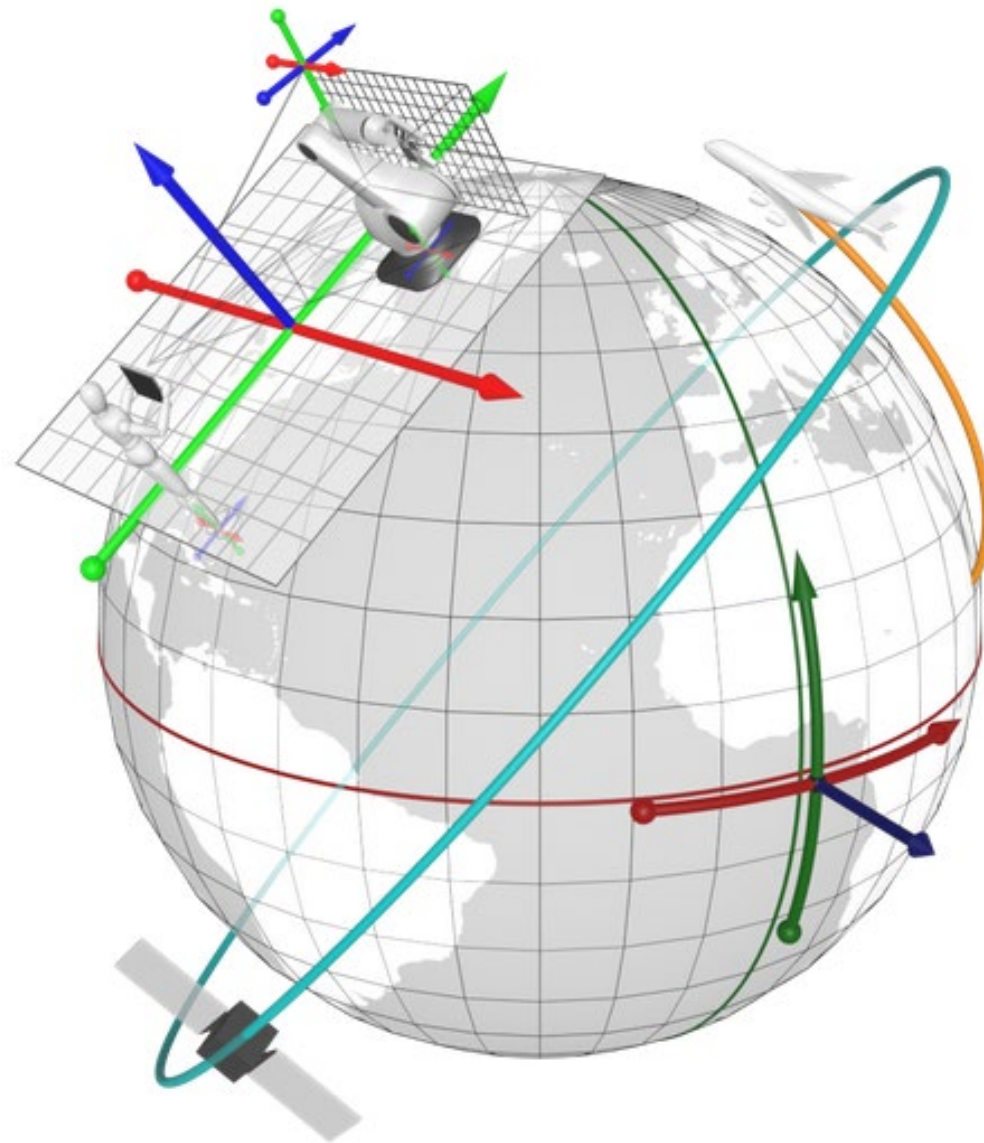
> Standard interesting for:

- VR/AR Applications
- Autonomous driving
- 3D Photos

Status: Public Review ended  
(next step Prepare for Approval)

<https://geopose.org/>

[https://data.ogc.org/geopose-swg/pdf/geopose\\_standard.pdf](https://data.ogc.org/geopose-swg/pdf/geopose_standard.pdf)



# NGDI 20-60: Competence centre for standardisation in the geoinformation sector

- Several specifications / standards analysed: ([Coverages](#), [DGGS](#), [EDR](#), [Features](#), [Maps](#), [Processes](#), [Records](#), [Styles](#), [SymCore](#), [Tiles](#), [SensorThings](#))
- Existing implementations examined:
  - pygeoapi (Python)
  - Geoserver (Java)
  - QGIS Server (C++)
  - FROST Server (Java)



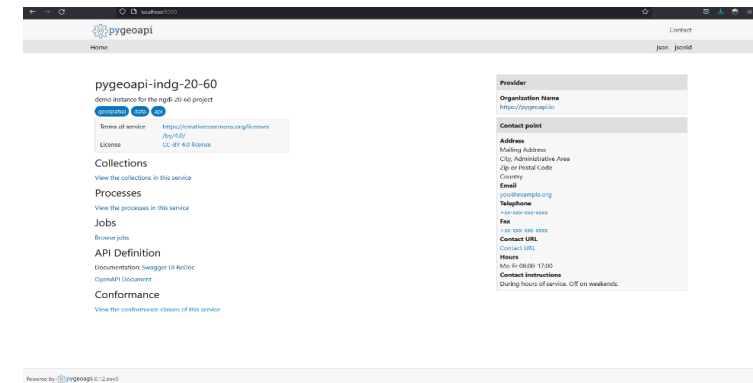
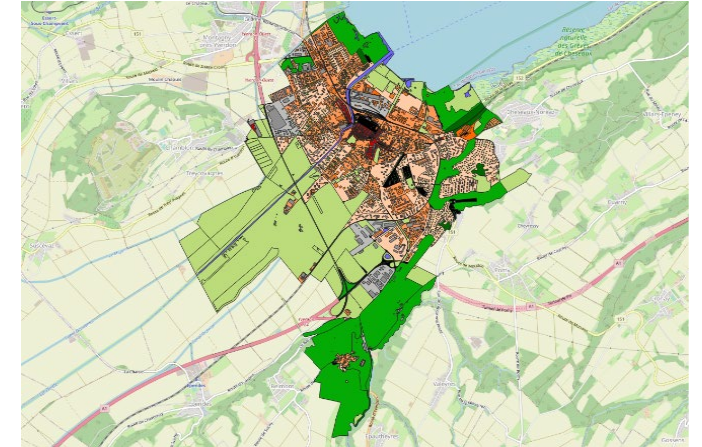
Idproxy



# NGDI 20-60: Competence centre for standardisation in the geoinformation sector

## Results:

- Some standards and specifications are now supported
- **Documentation** of tools often leaves much to be desired
- **OGC API Endpoints**: more visible and facilitate "Data Retrieval + Discovery".
- **CQL - Filter** become more usable
- **OGC API Styles**: very interesting perspectives for MGDM, representation models and [SymCore](#)
- **OGC API Tiles**: Uniformisation of tiled data (vector + raster)

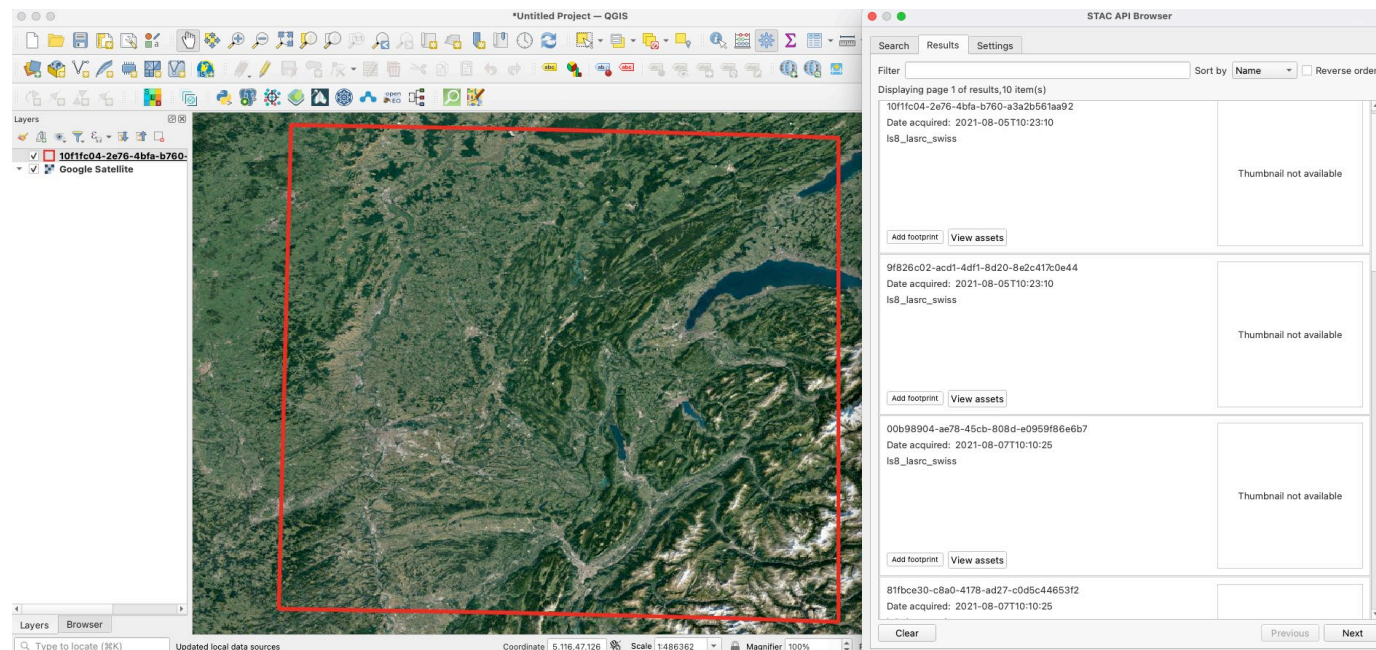




# NGDI 20-60: Competence centre for standardisation in the geoinformation sector

## Results:

- **OGC API Coverages-EDR-Records-STAC**: semi-operational to provide access to satellite time series data with the Swiss Data Cube
- **OGC API Processes**: ongoing implementation of a zonal statistical procedure using NDWI data.



# STAC and OGC APIs

Positionierung von **STAC** im OGC-Universum noch nicht klar

- Is an extension of OGC API features
- Link to OGC API Records not yet clarified

**STAC** will probably be integrated into the OGC APIs

**NGDI 20-05** Project analyses the suitability of STAC for Switzerland:

Comparison with existing download service implementations in Switzerland (e.g. ct.ZH) -  
Recommendations



Open  
Geospatial  
Consortium



**STAC**  
SpatioTemporal  
Asset Catalog



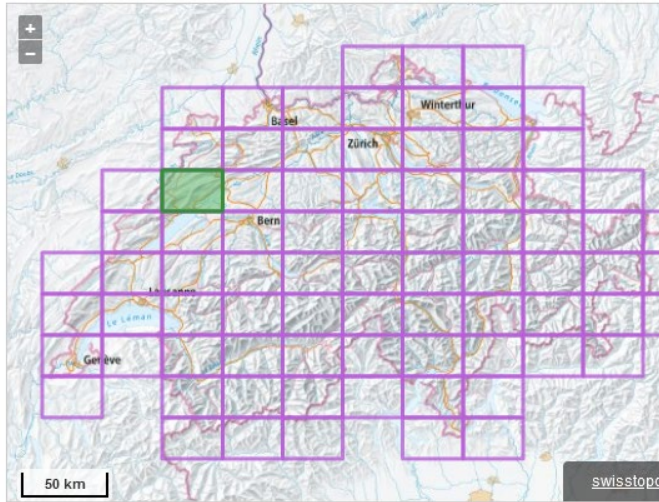
# STAC: NGDI 20-05 Download-services (INSER SA)

## STAC (SpatioTemporal Asset Catalogs):

- Specification for describing spatial information to facilitate its indexing and retrieval. <https://stacspec.org/>
- **Catalogue** service: enables the **search** for data, not its direct distribution.
- The atomic level contains a **link** to the data itself.
- Used by swisstopo for **OGD distribution** <https://stacspec.org/>

Mode de sélection

Sélection par clic



Options

Format: Cloud Optimized GeoTIFF

Système de coordonnées: MN95

État temporel: Actuel

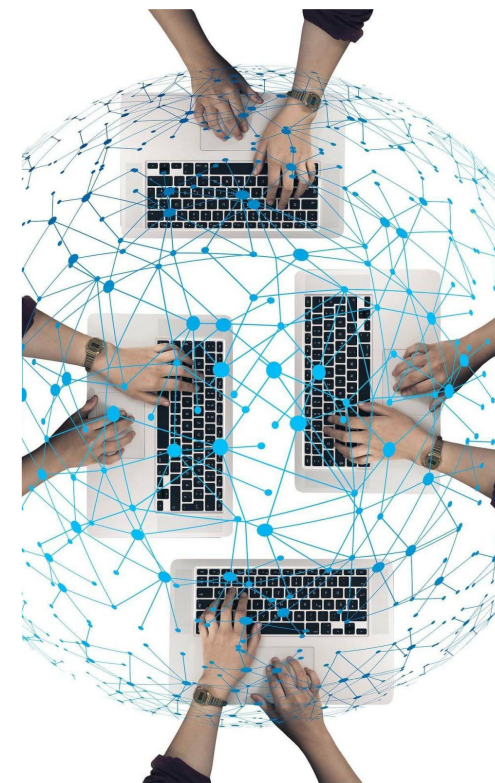
Variante: Couleur avec relief

Publié depuis: ☐

Chercher

## Summary

- OGC APIs = Important further development of existing geostandards (**OWS**)
- OGC standards important for Switzerland (e.g. with regard to **OGD** and eCH standardisation) -> eCH-0056)
- Participation and active observation important
- Recommendations and staggered upgrade of the NGDI





# Summary



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