



**NLS**  
NATIONAL  
LAND SURVEY  
OF FINLAND



# OGI API Records

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Virtual Workshop on Geodata Discovery

# Contents

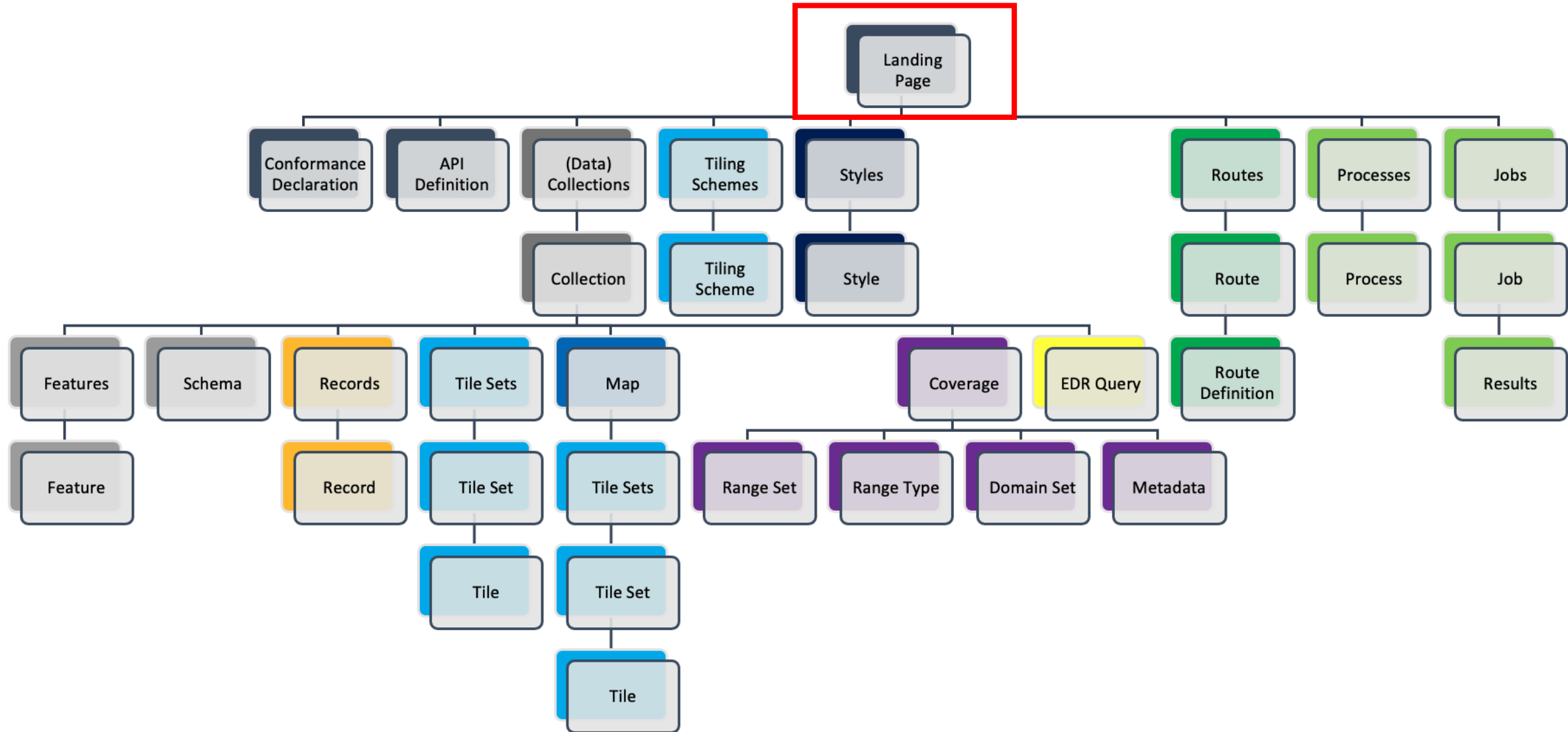
- Discoverability using standards
- OGC API's – a big picture
- OGC API Records
- Implementations
- Demos / Examples
- Standardisation work – ISO 19115-4

# Discoverability using standards

OGC API Records is a specification developed by the Open Geospatial Consortium (OGC) to improve the discoverability of geospatial data and services.

- Standardized Metadata Access: access and query metadata records for geospatial data and services, making it easier for users to discover relevant information.
- Consistent Data Discovery: metadata records follow a consistent structure and format
- Richer Metadata: detailed metadata about geospatial resources, including information about data quality, spatial extent, temporal coverage, and more.
- Interoperability: metadata can be easily accessed and understood by a wide range of applications and services
- Web-Based Access: standard HTTP requests and responses

# OGC API's - A big picture (image by OGC)



# Landing page

- E.g. HTML or JSON

Features, Coverages and Records

Processes Records Features GeoE3 api

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## Collections

View the collections in this service

## Processes

View the processes in this service

## API Definition

Documentation: [Swagger UI](#) [ReDoc](#)

[OpenAPI Document](#)

## Conformance

View the conformance classes of this service

```
JSON Raw Data Headers
Save Copy Collapse All Expand All Filter JSON
▼ links:
  ▼ 0:
    rel: "self"
    type: "application/json"
    title: "This document as JSON"
    href: "http://localhost:8080?f=json"
  ▼ 1:
    rel: "alternate"
    type: "application/ld+json"
    title: "This document as RDF (JSON-LD)"
    href: "http://localhost:8080?f=jsonLd"
  ▼ 2:
    rel: "alternate"
    type: "text/html"
    title: "This document as HTML"
    href: "http://localhost:8080?f=html"
    hreflang: "en-US"
  ▼ 3:
    rel: "service-desc"
    type: "application/vnd.oai.openapi+json;version=3.0"
    title: "The OpenAPI definition as JSON"
    href: "http://localhost:8080/openapi"
  ▼ 4:
    rel: "service-doc"
    type: "text/html"
    title: "The OpenAPI definition as HTML"
    href: "http://localhost:8080/openapi?f=html"
    hreflang: "en-US"
  ▼ 5:
    rel: "conformance"
    type: "application/json"
    title: "Conformance"
    href: "http://localhost:8080/conformance"
```



Open  
Geospatial  
Consortium

[More Info](#)

[GitHub repo](#)



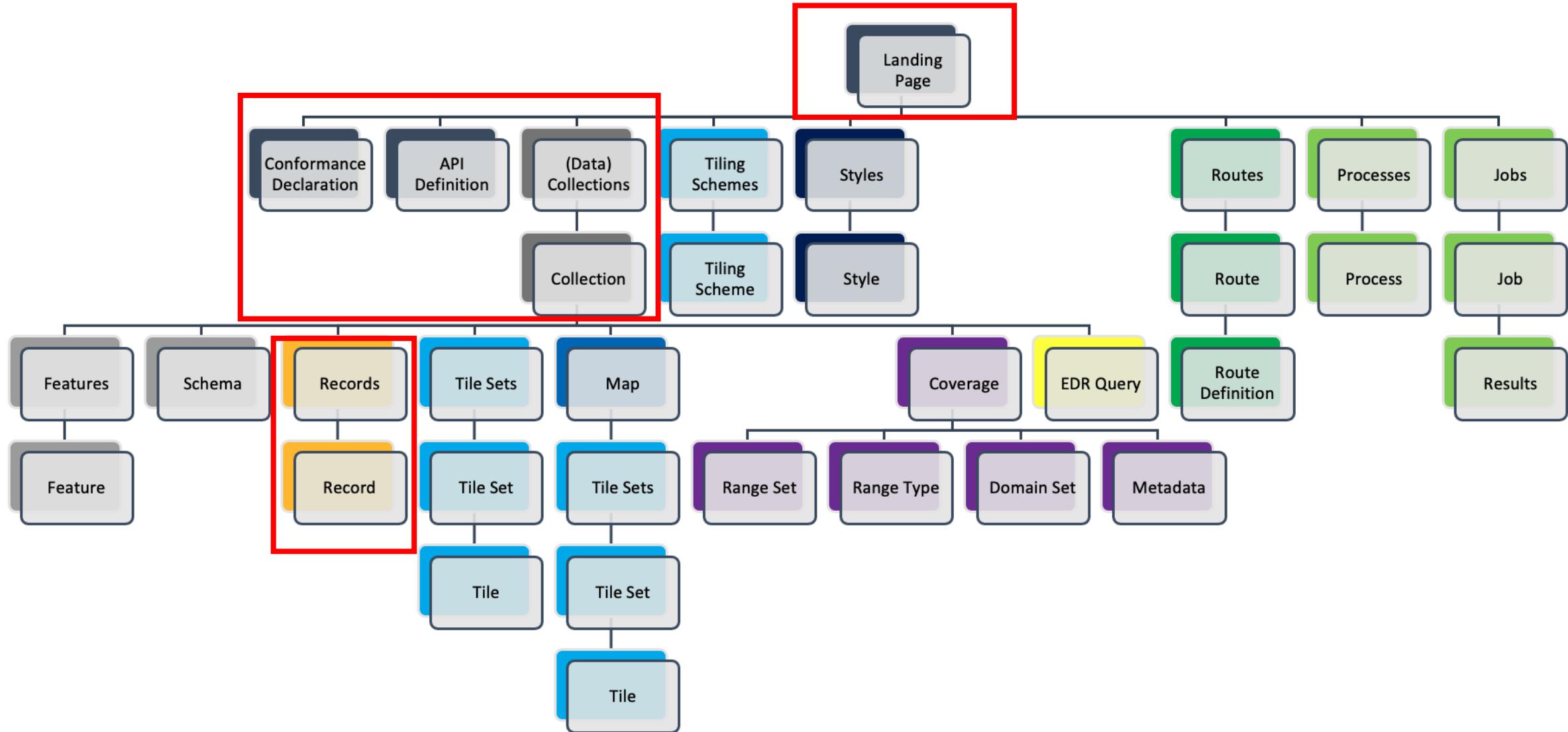
## Records

OGC API - Records updates OGC's Catalog Services for the Web by building on the simple access to content in OGC API - Features.

[More Info](#)

[GitHub repo](#)

# OGC API's - A big picture (image by OGC)



# OGC API Records

- OGC API - Records is a multi-part specification that offers the capability to create, modify, and query metadata on the Web
- Part 1 Core (**draft**) covers read-only access to records and simple query capabilities
- Capabilities for richer queries or to create, update or delete records will be specified in additional parts.



# API endpoints

Path Template	Relation	Resource
<b>Common</b>		
<a href="#">{root}/</a>	none	Landing page
<a href="#">{root}/api</a>	service-desc or service-doc	API Description (optional)
<a href="#">{root}/conformance</a>	conformance	Conformance Classes
<a href="#">{root}/collections</a>	data	Metadata describing the spatial collections available from this API.
<a href="#">{root}/collections/{collectionId}</a>		Metadata describing the collection which has the unique identifier {collectionId}
<b>Records</b>		
<a href="#">{root}/collections/{collectionId}/items</a>	items	Search results based on querying the service for records satisfying 0..n query parameters.
<a href="#">{root}/collections/{collectionId}/items/{recordId}</a>	item	Record of metadata which has the unique identifier {recordId}.

# Implementations

## Servers:

- [CubeWerx Inc.](#)
- [pygeoapi](#)
- [Esri Inc.](#)
- [GeoNetwork](#) [opensource](#)
- [Idproxy](#)
- [pycsw](#)

## Clients:

- [QGIS](#)
- [OWSLib](#)
- [stac-browser](#)
- [mdme](#)

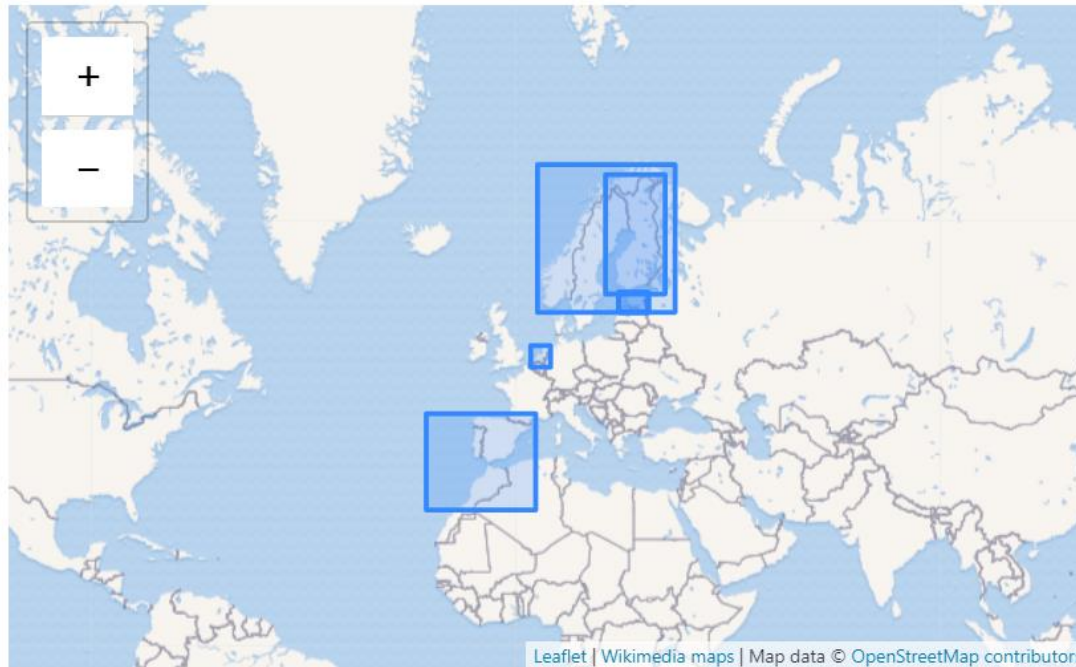
<https://github.com/opengeospatial/ogcapi-records/blob/master/implementations.md>

# Demos / Examples

Home / Collections / GeoE3 metadata Buildings / Items

## GeoE3 metadata Buildings

Items in this collection.



Warning: Higher limits not recommended!

Limit: 10 (default) ▼

# Item aa3b5e6e-7baa-40c0-8972-3353e927ec2f

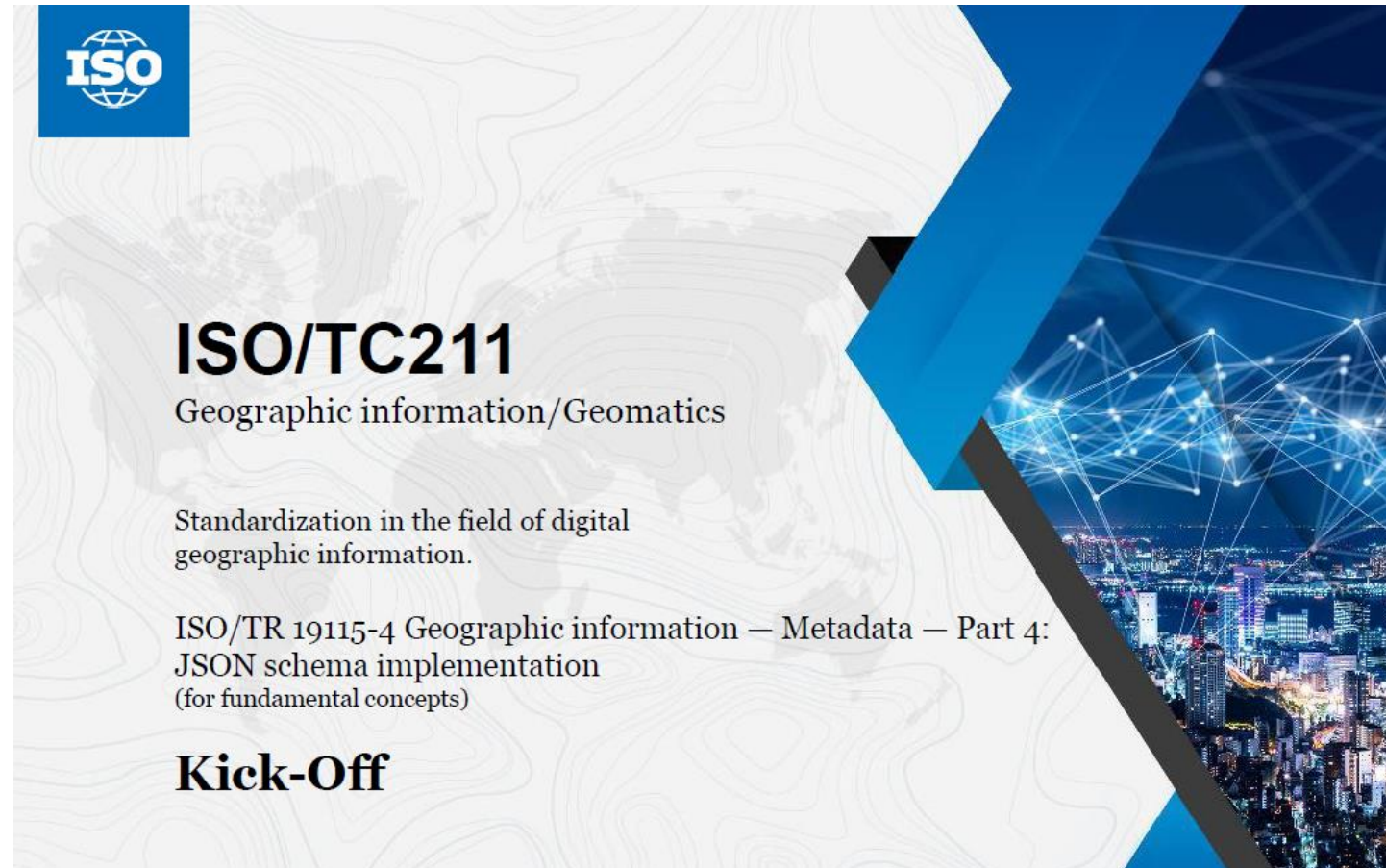


Property	Value
id	aa3b5e6e-7baa-40c0-8972-3353e927ec2f
recordCreated	2022-06-09
recordUpdated	2022-09-02T14:02:36Z
type	dataset
title	BAG
description	De gegevens bestaan uit BAG-panden en een deelselectie van BAG-gegevens van deze panden en de zich daarin bevindende verblijfsobjecten. Ook de ligplaatsen en standplaatsen zijn hierin opgenomen met een deelselectie van BAG-gegevens. De gegevens van de nummeraanduiding zijn in deze services onderdeel van de adresseerbare

id:	"aa3b5e6e-7baa-40c0-8972-3353e927ec2f"
type:	"Feature"
▼ geometry:	
type:	"Polygon"
▶ coordinates:	[...]
▼ properties:	
recordCreated:	"2022-06-09"
recordUpdated:	"2022-09-02T14:02:36Z"
type:	"dataset"
title:	"BAG"
▼ description:	"De gegevens bestaan uit BAG-panden en een deelselectie van BAG-gegevens van deze panden en de zich daarin bevindende verblijfsobjecten. Ook de ligplaatsen en standplaatsen zijn hierin opgenomen met een deelselectie van BAG-gegevens.\n\nDe gegevens van de nummeraanduiding zijn in deze services onderdeel van de adresseerbare objecten, hierbij wordt slechts 1 adres opgenomen, dus objecten met meerdere adressen (hoofd- en nevenadressen) zijn niet compleet. In deze services zitten dus niet alle BAG adressen. \n\nAangezien niet alle BAG gegevens worden geleverd, adviseren wij u om de actuele gegevens in één van de BAG producten te controleren.\n\nRaadpleeg de BAG Viewer voor enkele bevestigingen van BAG gegevens.\n\nEen overzicht van alle beschikbare producten kunt u vinden op de website\nhttps://www.kadaster.nl/zakelijk/registraties/basisregistraties/bag .\n\nDeze dataset wordt ook gebruikt voor het ontsluiten van het INSPIRE thema Gebouwen. Het betreft gebouwcontouren, constructieve onderdelen van gebouwen en ruimtelijke barrières. Dit betreft niet-geharmoniseerde data uit de basisregistratie Adressen en Gebouwen (BAG).\n\nDe service wordt dagelijks geactualiseerd."
▼ contactPoint:	"Directie Operatie, Dienstverlening en Registratie, afdeling Data-, Proces- en Informatiemanagement, PPB-GVA@kadaster.nl, Kadaster"
▼ associations:	
▼ 0:	
▼ href:	"https://service.pdok.nl/lv/bag/wms/v2_0?request=getCapabilities&service=WMS"
rel:	"item"
title:	"BAG (WMS)"
▼ 1:	
▼ href:	"https://service.pdok.nl/lv/bag/wfs/v2_0?request=getCapabilities&service=WFS"
rel:	"item"
title:	"BAG (WFS)"
▼ 2:	
▼ href:	"https://api.bag.kadaster.nl/lvbag/individuelebevestigingen/v2/"

# Standardisation work – ISO 19115-4

- Started May 2023 Jeonju, South Korea
- Led by Paul Jansen, NL
- A JSON encoding of at least a subset of ISO 19115 1:2014, as requested by OGC API Records and others
- JSON format type?
  - Plain JSON
  - GeoJSON
  - JSON-FG
  - JSON-LD

The slide features a background with a topographic map and a city skyline at night. A large blue arrow points from the top right towards the center. The ISO logo is in the top left corner.

**ISO**

**ISO/TC211**  
Geographic information/Geomatics

Standardization in the field of digital geographic information.

ISO/TR 19115-4 Geographic information – Metadata – Part 4:  
JSON schema implementation  
(for fundamental concepts)

**Kick-Off**

# Thank you!

 @JariReini

 <https://www.linkedin.com/in/reini/>



# Advancing together

