

# Management of open geodata, the Italian approach

Gabriele Ciasullo – Antonio Rotundo



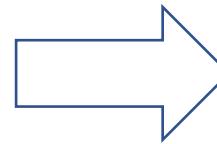
A G I D

Agenzia per l'Italia Digitale

# Normative, policy and technical references

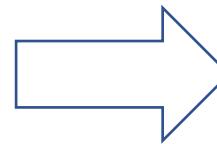
What Pas must implement

National laws  
and policy  
documents



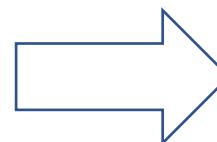
- Art. 59 – Digital Administration Code
- Decree transposing INSPIRE Directive
- Three Year Plan for ICT in the PA
- Decree transposing Open Data Directive

Guidelines



- Guidelines about the technical rules for feeding and updating the content of the National Catalogue for Spatial Data

Technical  
guidance



- Technical guidance for RNDT metadata
- Technical guidance for the implementation of GeoDCAT-AP

How PAs might implement

# The National Catalogue for Spatial Data (RNDT)



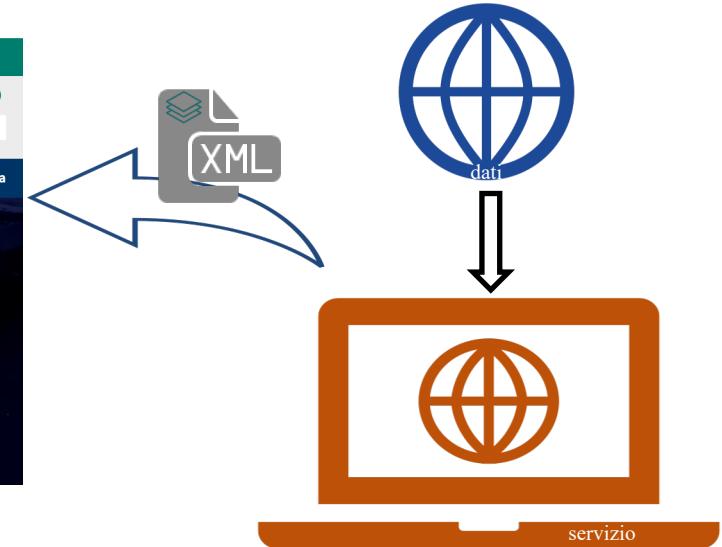
- Bachecca RNDT AgID INSPIRE dati.gov.it
- 26/04/2018  
Nuovo numero della newsletter RNDT  
Pubblicato il nuovo numero (1/2018) di 'RNDT news', la newsletter del Repertorio Nazionale dei Dati Territoriali. Per riceverla, inviare apposita richiesta utilizzando i contatti...
- 19/04/2018  
Webinar di presentazione del nuovo RNDT  
Il 9 maggio p.v. alle ore 12 è in programma un webinar per la presentazione della

<https://geodati.gov.it>

# Publishing metadata for enabling data discoverability



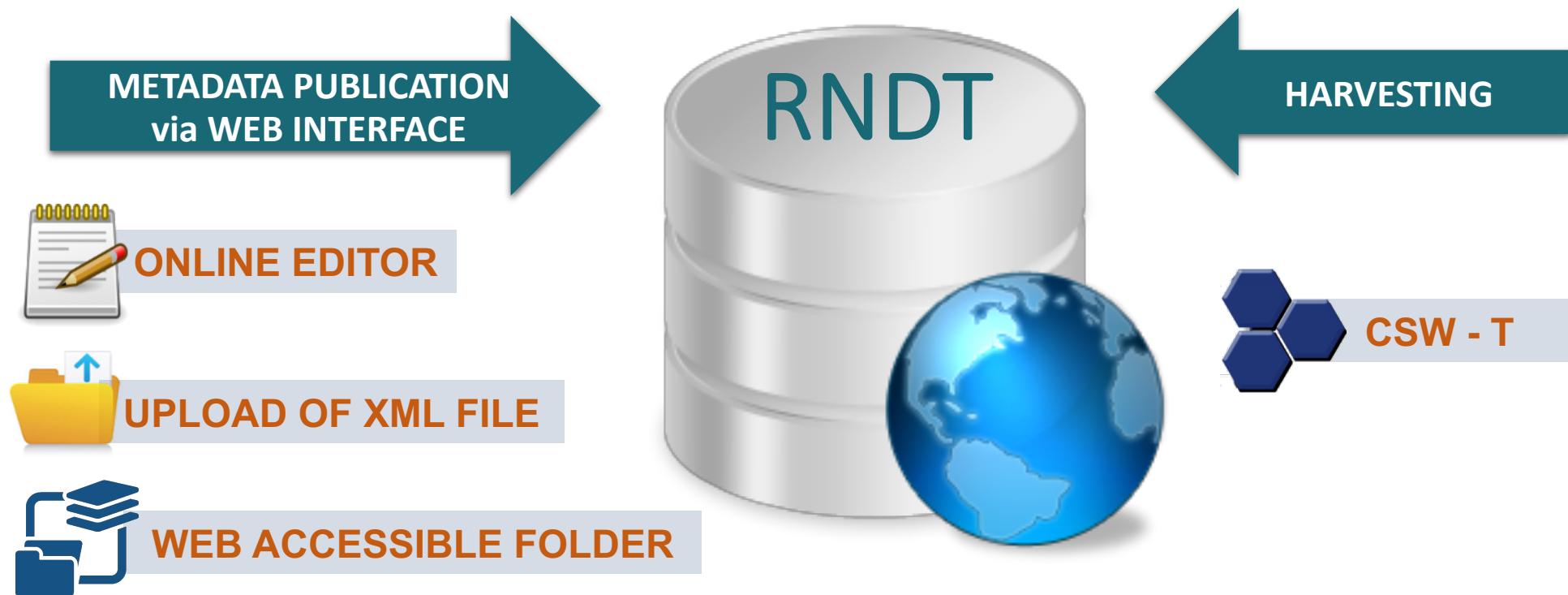
- Text search
- Advanced search
- Search by predefined classifications
- REST API
- CSW
- Search engine



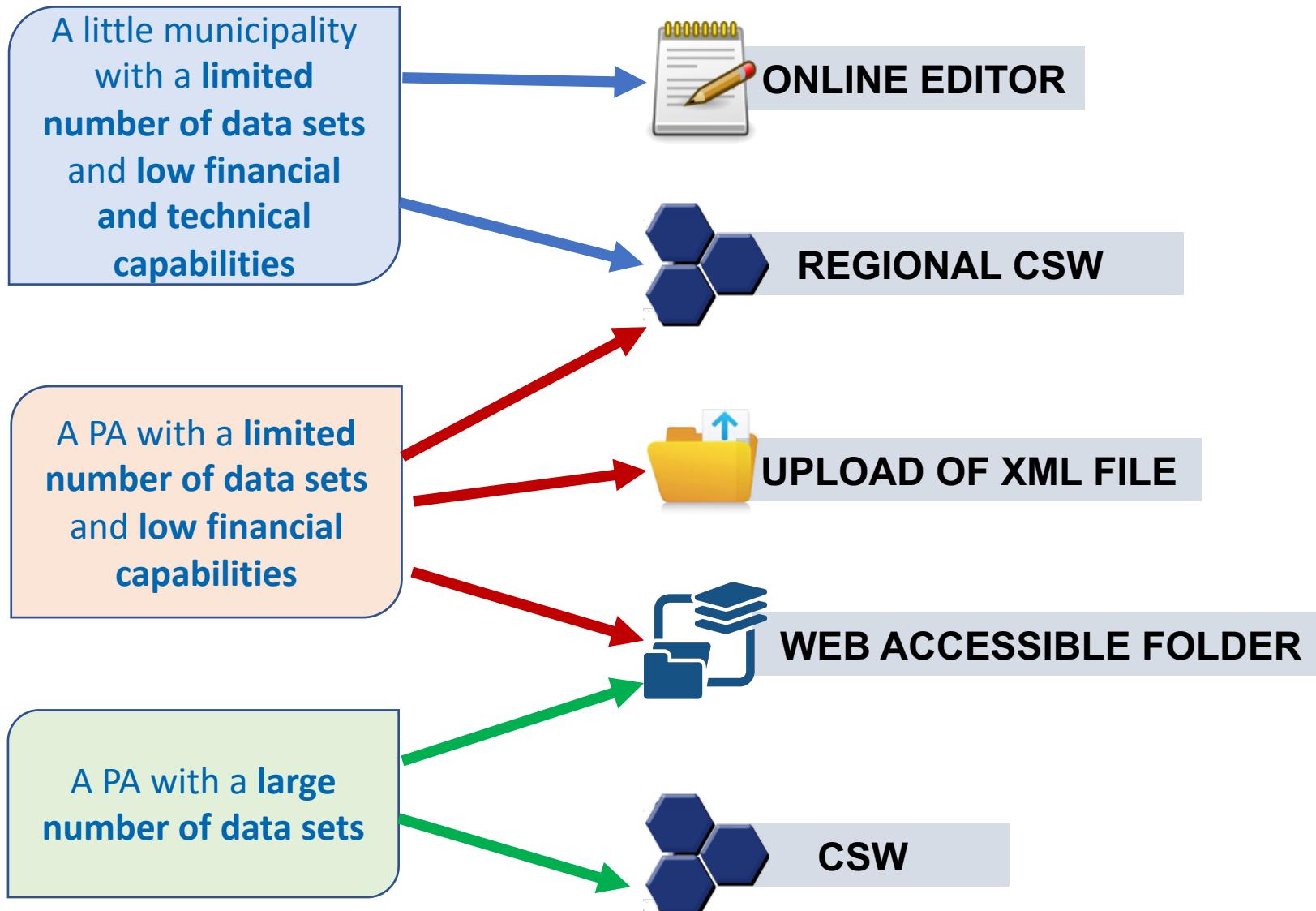
Improving the discoverability to spatial data and services, by ensuring and facilitating their access and use to an ever wider and diversified audience.

**Supporting public administrations, spatial data and services providers**, to foster and improve the process of definition, availability and interoperability of the resources.

# Feeding the RNDT



# Feeding the RNDT – use cases



# URLs policy

- Identifiers (i.e. fileID, resource ID, ...) in metadata records include the **code of the PA responsible** for the resource, assigned in the PAs register (Indice PA: <https://indicepa.gov.it>)

Example

**r\_piemon:**80143db5-3d23-45ca-8a91-10c26dd29ae4  
(Regione Piemonte)

- An URI is assigned to each record in the Catalogue.  
Pattern:

<https://geodati.gov.it/resource/id/{fileIdentifier}>

Example

[https://geodati.gov.it/resource/id/r\\_piemon:80143db5-3d23-45ca-8a91-10c26dd29ae4](https://geodati.gov.it/resource/id/r_piemon:80143db5-3d23-45ca-8a91-10c26dd29ae4)

- A stable URL for the landing page of the metadata records

# Spatial Data on the Web Best Practices



## Best Practice 1

Use globally unique persistent HTTP URIs for Spatial Things

## Best Practice 2

Make your spatial data indexable by search engines

## INSPIRE Action SDW-4

Discovery of spatial data through mainstream search engines



# National and EU discoverability



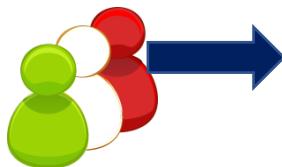
<https://inspire-geoportal.ec.europa.eu>

The official portal for European data  
170 Catalogues 36 Countries 1 331 871 Datasets

Trending datasets

- Consolidated list of persons, groups and entities subject to EU financial sanctions
- Number of COVID-19 people killed by

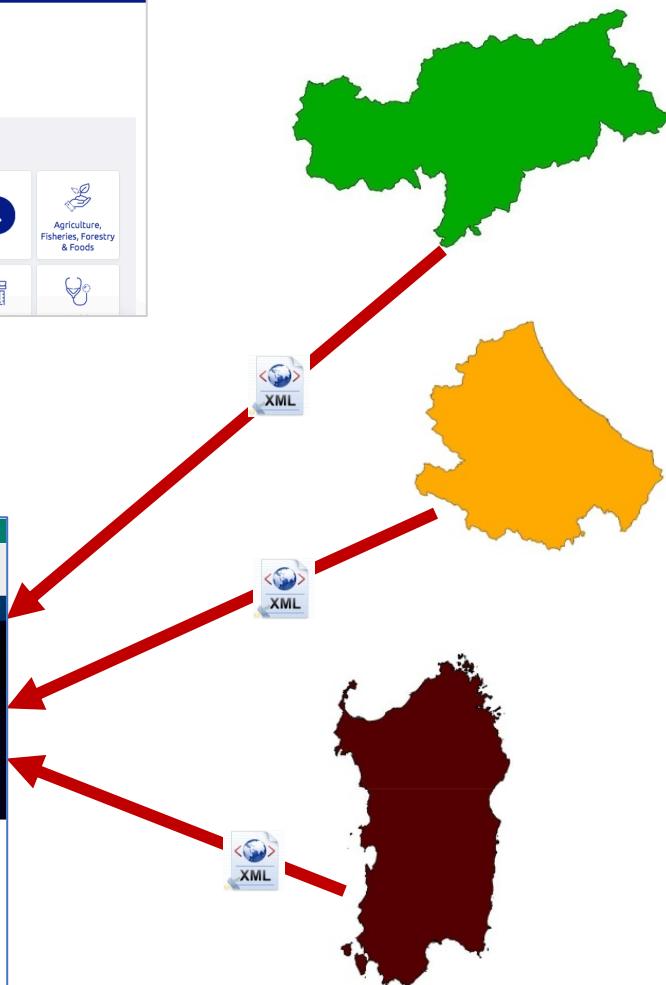
<https://data.europa.eu>



Agenzia per l'Italia Digitale  
geodati.gov.it  
Reportario Nazionale dei Dati Territoriali

La ricerca dell'informazione geografica inizia da qui

Tipologia metadati



# The Italian Open Data Portal

Agenzia per l'Italia Digitale

Avanzamento digitale Geodati

 dati.gov.it  
i dati aperti della pubblica amministrazione

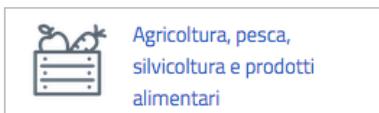
Cerca nel sito 

Dati ▾ Fare Open Data ▾ Monitoraggio ▾ Sviluppatori ▾ Scrivi alla redazione

Cerca nei metadati 

[Ricerca avanzata](#)

naviga i dati per categoria tematica



Agricoltura, pesca,  
silvicoltura e prodotti  
alimentari



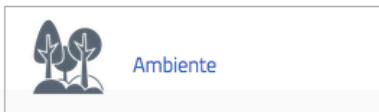
Economia e finanze



Istruzione, cultura e sport



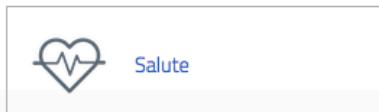
Energia



Ambiente



Governo e settore pubblico



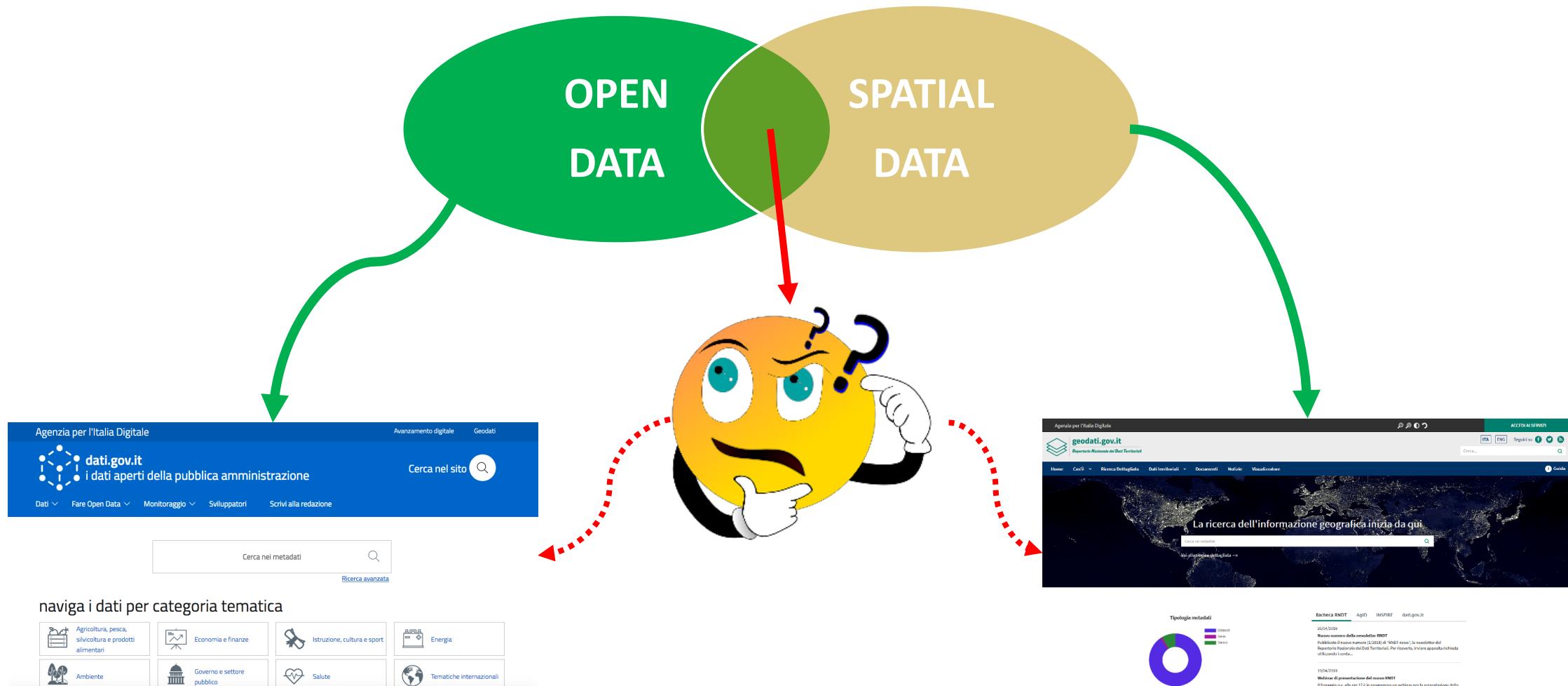
Salute



Tematiche internazionali

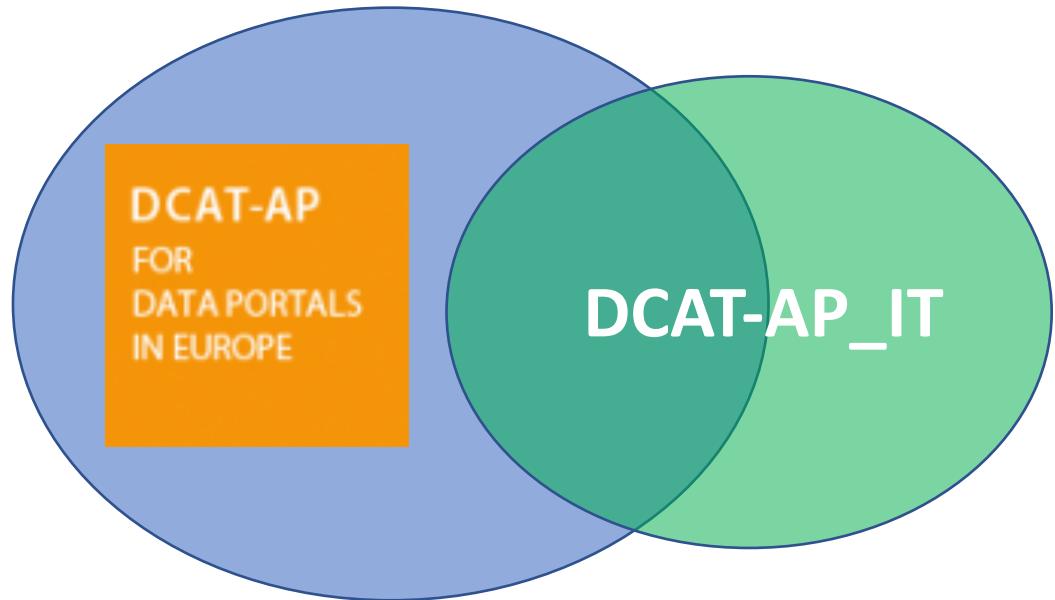
**https://dati.gov.it**

# How document open spatial data?

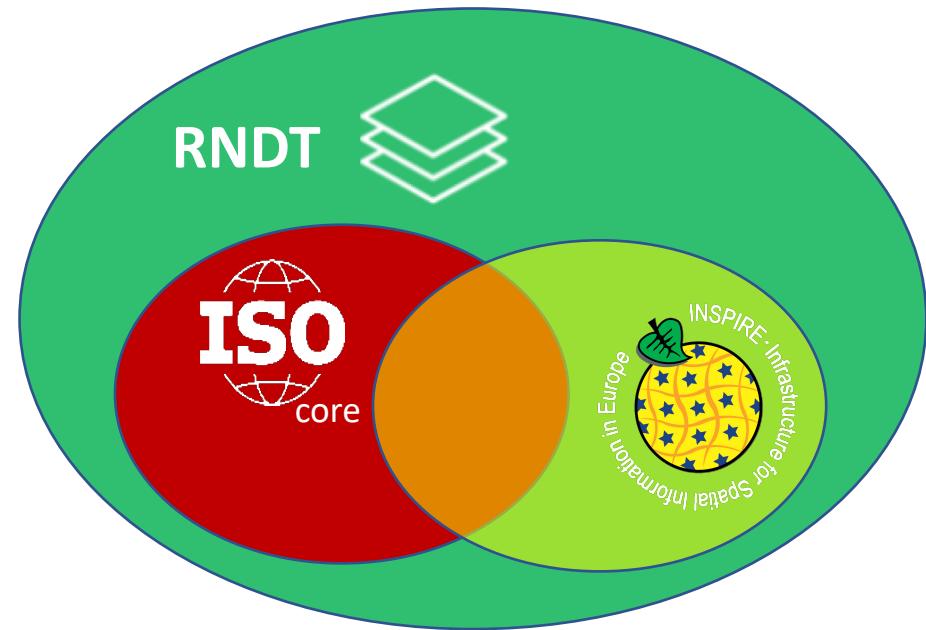


# Metadata standards

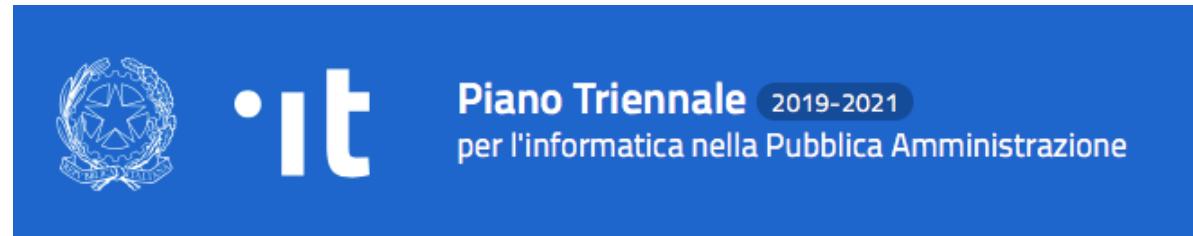
## OPEN DATA



## SPATIAL DATA



# A process not only an implementation



## Three-Year Plan for ICT in the Public Administration

### Action LA15

- Definition of national guidelines (December 2017) ✓
- Implementation of **GeoDCAT-AP\_IT** ✓
- Full engagement of Italian PAs

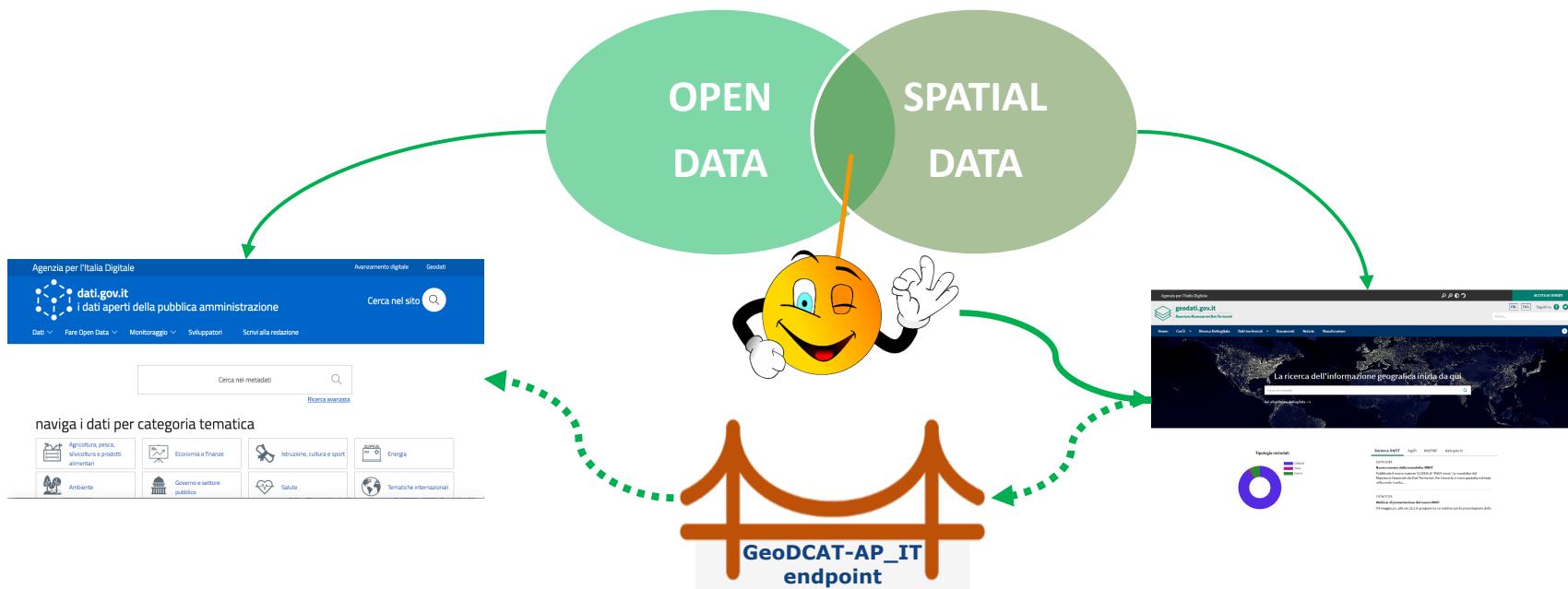
# GeoDCAT-AP\_IT rules

**ONCE ONLY**

**Req n. 1** – Spatial data, that are also open data, shall be documented **ONLY** in the Catalog for spatial data (RNDT)

**Req n. 2** - RNDT will make available the metadata also in the Catalog of open data through GeoDCAT-AP\_IT

**Rec n. 1** - PAs are recommended to adopt the same approach for local catalogs.



# Identification of open geodata

- **Conditions applying to access and use**

```
<gmd:resourceConstraints>
    <gmd:MD_LegalConstraints>
        <gmd:useConstraints>
            <gmd:MD_RestrictionCode
                codeList="http://standards.iso.org/ittf/PubliclyAvailableStandards/ISO_19139_Schemas/resources/Codelist/ML_gmxCodelists.xml#MD_RestrictionCode"
                codeListValue="otherRestrictions">otherRestrictions</gmd:MD_RestrictionCode>
            </gmd:useConstraints>
            <gmd:otherConstraints>
                <gmx:Anchor
                    xlink:href="https://creativecommons.org/licenses/by/4.0/">CC BY 4.0</gmx:Anchor>
                </gmd:otherConstraints>
                <gmd:otherConstraints>
                    <gco:CharacterString>Licenza CC BY 4.0</gco:CharacterString>
                </gmd:otherConstraints>
            </gmd:otherConstraints>
        </gmd:MD_LegalConstraints>
    </gmd:resourceConstraints>
```

- **Keyword**

```
<gmd:keyword>
    <gco:CharacterString>opendata</gco:CharacterString>
</gmd:keyword>
```

# The discoverability of open data in the catalogues

Esplora i dati del catalogo

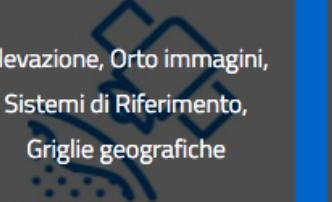
Temi INSPIRE   Dataset prioritari   **Dati aperti**



 Agricoltura, pesca, silvicoltura e prodotti alimentari	 Ambiente	 Economia	 Governo e settore pubblico	 Popolazione e società	 Regioni e città	 Salute	 Scienza e tecnologia	 Trasporti
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Esplora i dati aperti del geocatalogo



 Biodiversità e Aree sottoposte a gestione	 Copertura del suolo e Utilizzo del Territorio	 Dati di base topografici e catastali	 Elevazione, Orto immagini, Sistemi di Riferimento, Griglie geografiche	 Impianti e Servizi di pubblica utilità
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# GeoDCAT-AP\_IT API



## Software

Il catalogo del software open source a disposizione della Pubblica Amministrazione.

 SOFTWARE A RIUSO

A screenshot of the RNDT GeoDCAT-AP API interface. It shows a green header bar with the text 'RNDT GeoDCAT-AP API'. Below the header, there's a detailed description of the API, mentioning it converts CSW requests to GeoDCAT-AP format. It also specifies that the API supports GET and POST methods for CSW requests and returns results in RDF/XML or JSON-LD. There's a 'Inserire richiesta get:' input field with dropdowns for 'Trasformazione di output' (GeoDCAT-AP\_IT), 'Formato di input' (CSW), and 'Formato di output' (RDF/XML). Below this, there's a large text area labeled 'Inserire la richiesta CSW o REST'.

## RNDT GeoDCAT-AP API

API di RNDT per l'implementazione di GeoDCAT-AP.

[https://geodati.gov.it/geodcat-ap\\_it](https://geodati.gov.it/geodcat-ap_it)

## Inserire richiesta get:

Trasformazione di output:

Formato di input:

Formato di output:

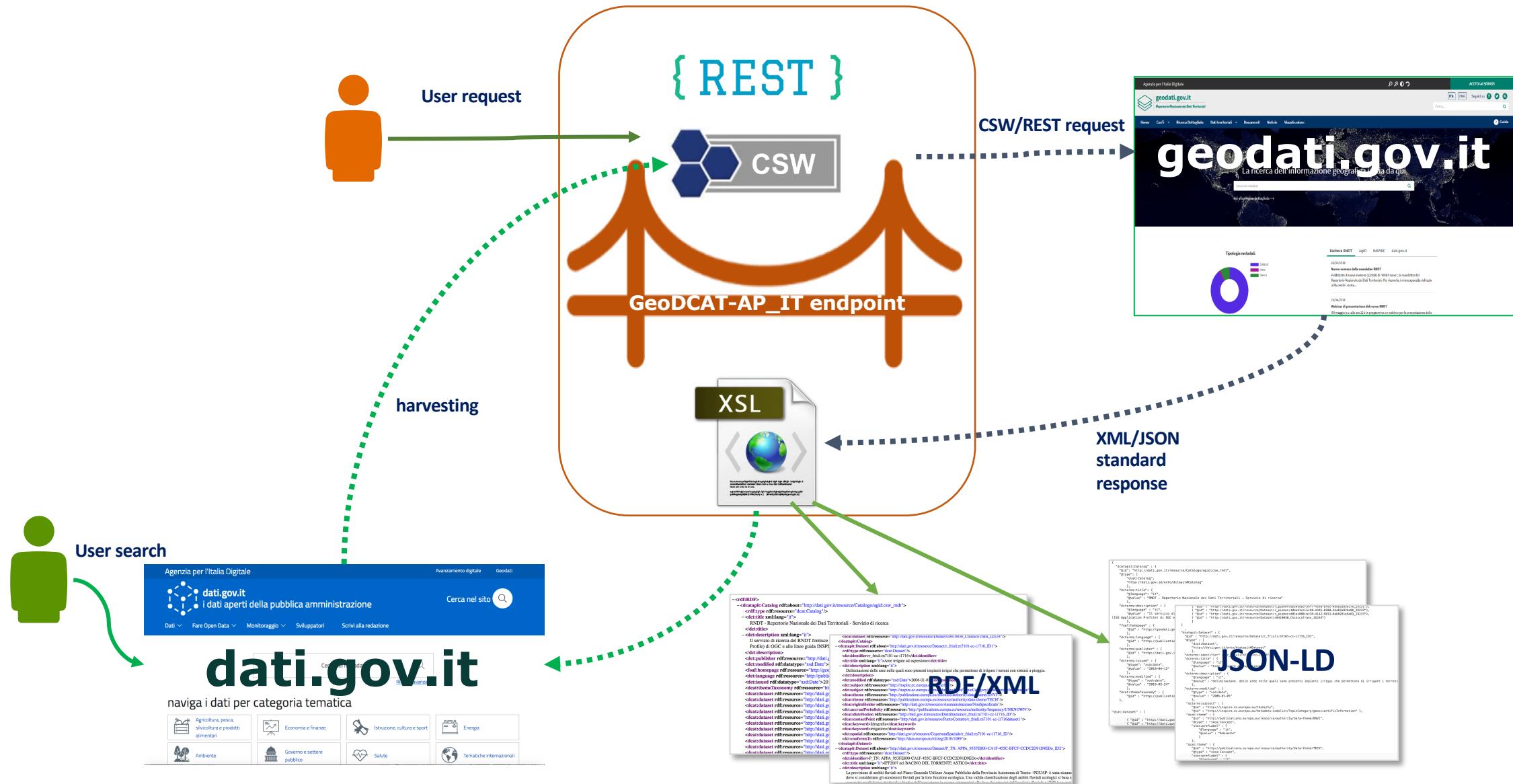
Inserire la richiesta CSW o REST

CSW or REST request area

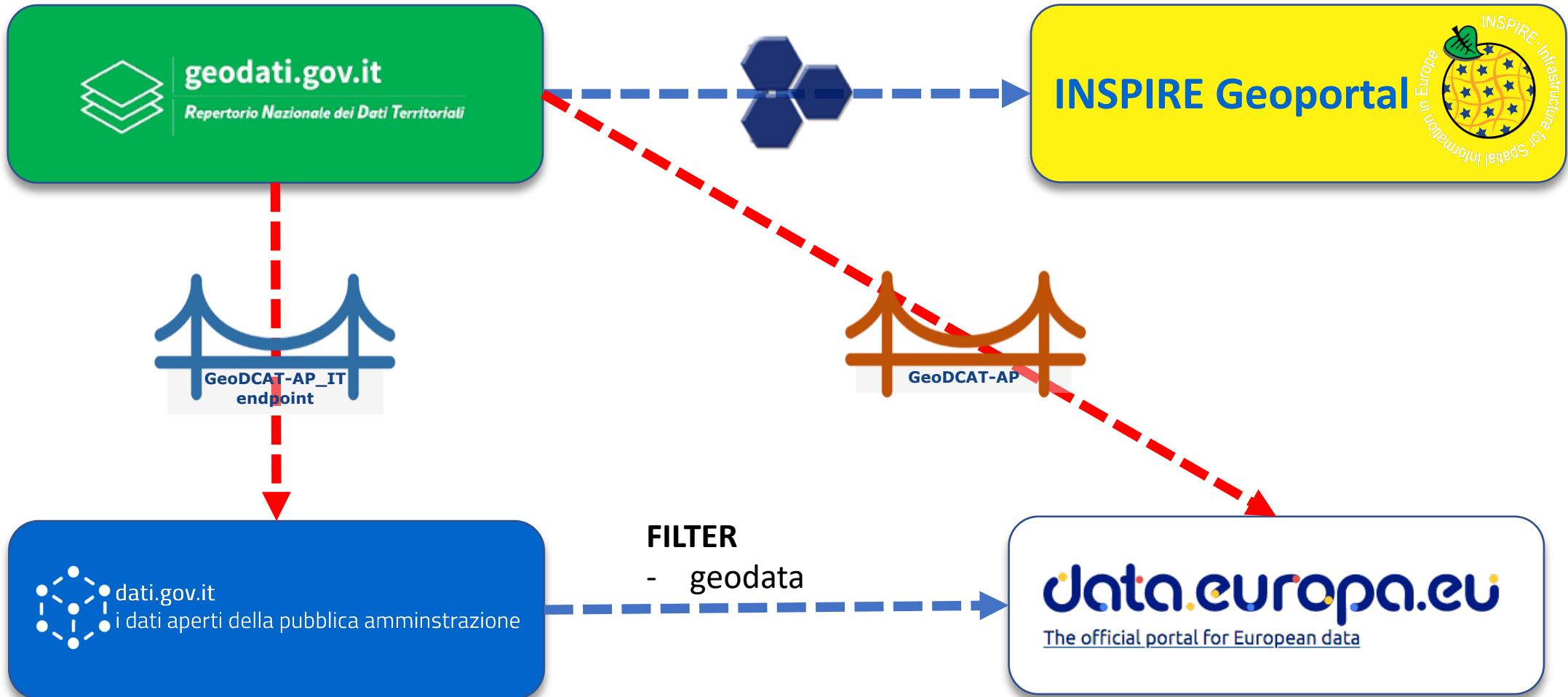
[https://geodati.gov.it/geodcat-ap\\_it/index.php?outputTransformation=geodcatap\\_it&inputFormat=CSW&outputFormat=XML&src=](https://geodati.gov.it/geodcat-ap_it/index.php?outputTransformation=geodcatap_it&inputFormat=CSW&outputFormat=XML&src=)

GeoDCAT-AP\_IT API request area

# GeoDCAT-AP\_IT API

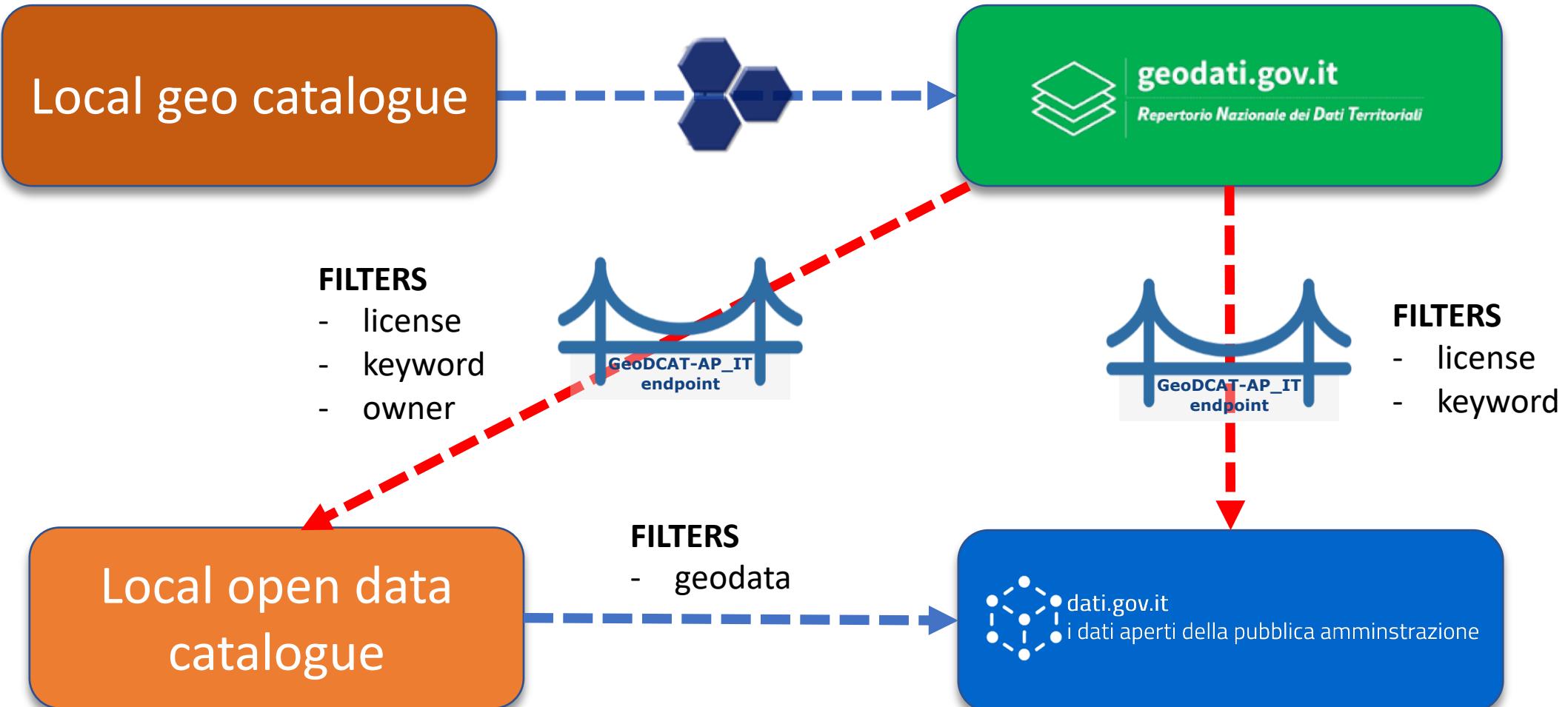


# Interoperability national / European catalogues

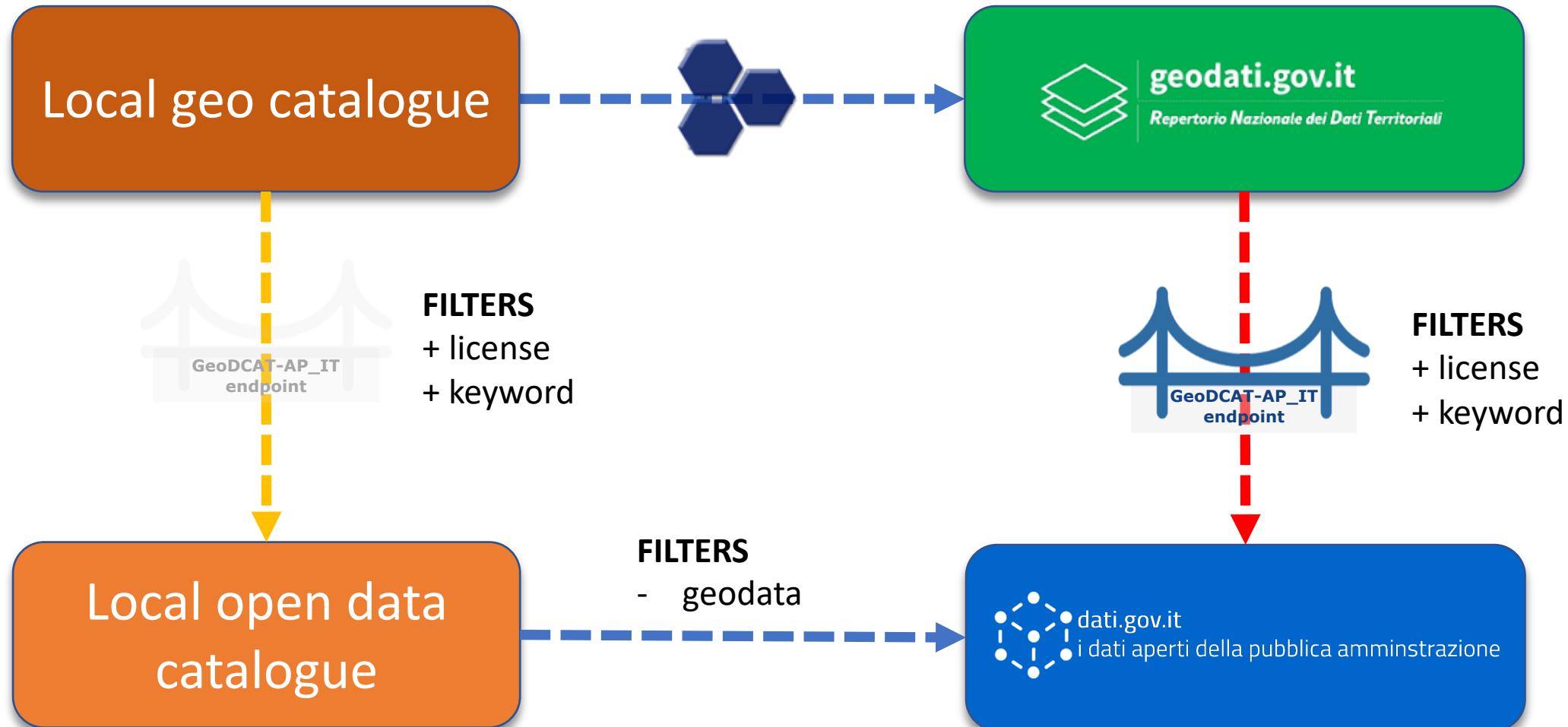


[https://dati.gov.it/opendata/api/3/action/package\\_search?fq=!organization:geodati-gov-it-rndt](https://dati.gov.it/opendata/api/3/action/package_search?fq=!organization:geodati-gov-it-rndt)

# Interoperability local / national catalogues – scenario 1



# Interoperability local / national catalogues – scenario 2



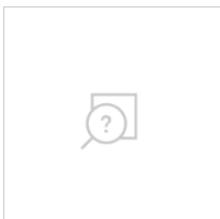
# Discoverability, regardless the search tool used

DATASET

## CARTA DELLA NATURA ALLA SCALA 1:50.000 CARTA DEGLI HABITAT - DATASET

- Carta degli habitat alla scala 1:50.000, codificati secondo il sistema di classificazione europeo CORINE Biotopes, con adattamenti ed integrazioni.- Dati di valutazione ecologico-ambientale: Indici di valore ecologico, sensibilità ecologica, pressione a...

Add to cart



[Display Responsible and point of contact details](#)

+ [geodati.gov.it](#)

DETAILS ▾

OPEN ▾

OGC SERVICES ▾

DOWNLOAD ▾

## Map of Nature at 1:50,000 scale: Habitat Charter — Dataset

— Habitat map on scale 1:50,000, coded according to the European classification system CORINE Biotopes, with adaptations and Environmental and ecological assessment data: Ecological value indices, ecological sensitivity, anthropogenic pressure and...

[data.europa.eu](#)

Created: 03.02.2014



Carta della Natura alla scala 1:50.000: Carta degli Habitat - Dataset  
geodati.gov.it

Ultimo aggiornamento: Feb 3, 2014



Carta della Natura alla scala 1:50.000: Indice Complessivo di Fragilità...

[www.europeandataportal.eu](#)  
[data.europa.eu](#)

Ultimo aggiornamento: Jul 28, 2021

## Carta della Natura alla scala 1:50.000 Carta degli Habitat - Dataset

[GeoJSON](#)

- Carta degli habitat alla scala 1:50.000, codificati secondo il sistema di classificazione europeo...

Pubblicato da: GeoDati.gov.it (RNDT)

Data di ultima modifica: 2014-02-03

[ambiente](#) [aree-naturali](#) [carta-natura](#) [corine-biotopes](#)

[dati.gov.it](#)

## Data set Metadata ▾

### Resource Title

Carta della Natura alla scala 1:50.000 Carta degli Habitat - Dataset

### Reporting Tags

Priority Dataset

### Spatial Scope

National

[INSPIRE geoportal](#)

### Conditions Applying To Access And Use

<https://creativecommons.org/licenses/by/4.0/deed.it>

### Limitations On Public Access

[Nessuna Limitazione al Pubblico Accesso](#)

## Carta della Natura alla scala 1:50.000: Carta degli Habitat - Dataset

[Vedi su RNDT - Repertorio Nazionale...](#)

### Ultimo aggiornamento set di dati

Feb 3, 2014

### Set di dati fornito da

[Istituto superiore per la protezione e la ricerca ambientale](#)

### Area coperta



[Google dataset search](#)

# Useful material

- Italy, discoverability in practice  
<https://data.europa.eu/it/impact-studies/country-insights/italy/italy-discoverability-practice>
- Interview on GeoDCAT-AP - Insights from Agency for Digital Italy  
[https://ec.europa.eu/isa2/interview-geodcat-ap-insights-agency-digital-italy\\_en](https://ec.europa.eu/isa2/interview-geodcat-ap-insights-agency-digital-italy_en)

