

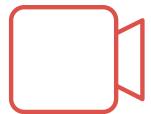
**WEBINAR**



# Webinar on Geospatial Harvesting on data.europa.eu

- 29 November 2022
- 10.00 – 11.00 CET

# Rules of the game



The webinar will be recorded



Please mute yourselves during the webinar



Please reserve 3 min after the webinar to help us improve and plan for 2023 by filling in our feedback form



For questions, please use sli.do. Vote for the questions that are of most interest to you, those will be discussed later

# Ask your questions in sli.do using the code ***geoharvesting2022***

The image shows a web browser with two tabs open. The left tab is a Slido participant joining screen, displaying the text "Joining as a participant?" and a text input field containing the code "geoharvesting2022". The right tab is a data.europa Academy Q&A page for an event, showing a question input field with the placeholder "Type your question" and a QR code.

# Introduction



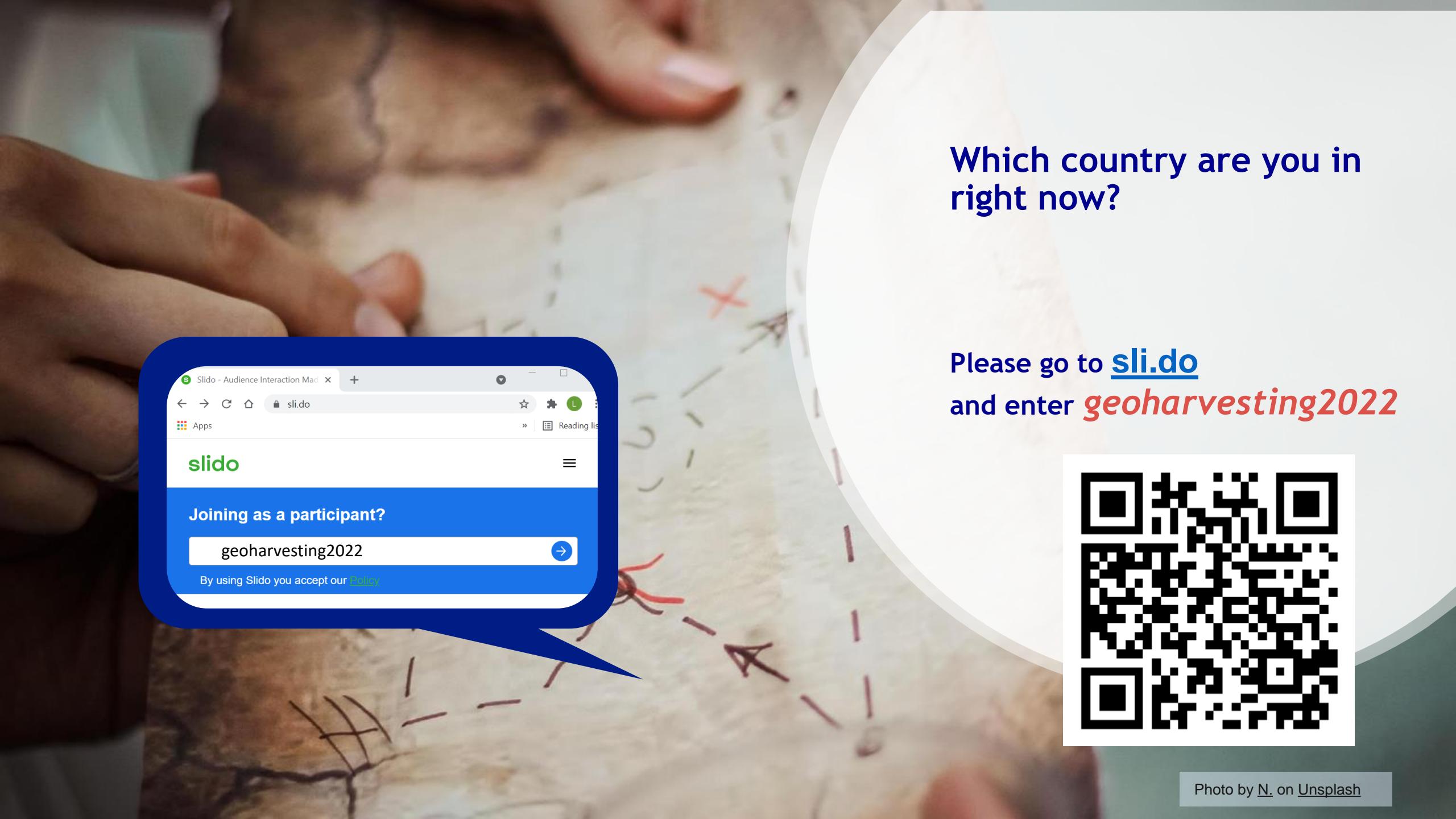
**Giulia Carsaniga**  
Research and  
communication  
consultant for  
[data.europa.eu](http://data.europa.eu)



**Dr. Thore Fechner**  
*con terra*  
Head of Team  
Open Data and Copernicus



**Jan van Zadelhoff**  
*con terra*  
Software-Engineer  
Open Data and  
Copernicus



Which country are you in right now?

Please go to [sli.do](https://sli.do) and enter **geoharvesting2022**





Which country are you joining from?

# Agenda

1

2

3

4

5

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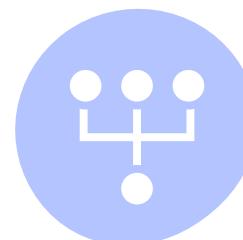
Introduction & goal of  
the webinar

Geospatial data on  
[data.europa.eu](https://data.europa.eu)

The geo-harvesting  
process

Q&A

Summary &  
feedback



# Agenda

1

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Introduction & goal of  
the webinar



# Agenda



Introduction & goal of  
the webinar



Geospatial data on  
[data.europa.eu](#)



# data.europa.eu

- data.europa.eu provides access to open data
- Single access point to open data in Europe
- Strategic objective is to improve accessibility of open data

data.europa.eu - The official portal for European data

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EU Datathon 2022 



Search  

1 544 860	176	36
Datasets	Catalogues	Countries
European public sector datasets	Datasets grouped by catalogue	Explore datasets by country
1 318	180	37
News pieces	Data stories	Courses
News related to open data	Inspiring stories about open data	Learning material on open data

# data.europa.eu

- Includes metadata from 176 catalogues
- Descriptions of more than 1.5 Mio. datasets
- from 36 countries

An official website of the European Union How do you? ↗

European Commission

Log in English

## data.europa.eu - The official portal for European data

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### EU Datathon 2022

Find out more >



Search Datasets

1 544 860 Datasets European public sector datasets	176 Catalogues Datasets grouped by catalogue	36 Countries Explore datasets by country
1 318 News pieces News related to open data	180 Data stories Inspiring stories about open data	37 Courses Learning material on open data

# Harvesting

- Metadata is harvested from
  - Open data catalogues
  - Geocatalogues
- Catalogue providers
  - EU Institutions (e.g. Eurostat)
  - European Countries
    - National, regional, thematic
  - International institutions



[Login](#) [EN English](#)

data.europa.eu - The official portal for European data

Home Datasets Documentation Publications data.europa academy News Contact us

Home > Catalogues

## Catalogues

Filter by

Provenance

Luxembourg

Clear filters

Search Catalogues

Catalogues found (2) Sort by: Relevance

Provenance: lu x

**La plateforme de données luxembourgeoise**  
Open Data Portal Luxembourg

**Geoportal of the Grand-Duchy of Luxembourg**  
Geo Data Portal Luxembourg

A screenshot of the data.europa.eu website's catalogues page. The top navigation bar includes links for Home, Datasets, Documentation, Publications, data.europa academy, News, and Contact us. Below this is a breadcrumb trail: Home > Catalogues. The main content area has a heading 'Catalogues' and a 'Filter by' section with a dropdown menu set to 'Luxembourg'. A 'Clear filters' button is also present. To the right is a search bar with 'Catalogues' selected in the dropdown and a magnifying glass icon. Below the search is a summary 'Catalogues found (2)' with a 'Sort by: Relevance' dropdown. Two results are listed: 'La plateforme de données luxembourgeoise' (Open Data Portal Luxembourg) and 'Geoportal of the Grand-Duchy of Luxembourg' (Geo Data Portal Luxembourg). Each result has a small colored square icon next to its name.

# What kind of geospatial data can be found on data.europa.eu?

- Geoservices, e.g.
  - OGC Web Map Services (WMS)
  - OGC Web Feature Services (WFS)
- Geodata, e.g.
  - GeoJSON, Shapefile, GPX, GeoTiff, GeoPackage, GML, KML
- Data with direct or indirect spatial information
  - coordinates
  - indirect geospatial information (e.g. addresses, postal codes, or municipality identifier)

The screenshot shows the data.europa.eu search interface. At the top right, there is a search bar and a message indicating 1,544,726 datasets found. Below the search bar, there are two dropdown menus: 'Publisher' (set to 'Select') and 'Formats' (set to 'Select'). Under 'Formats', there is a 'Filter' dropdown and a list of options: CSV (246,766), WMS (196,297), WFS (114,476), JSON (101,840), and HTML (80,171). The WMS and WFS options are highlighted with a red oval. On the right side, there is a sidebar with a logo for 'Plateforme ouverte des données publiques françaises' and a section titled 'Métriques d'utilisation de l'application TousAntiCovid'.

Format	Count
CSV	246 766
WMS	196 297
WFS	114 476
JSON	101 840
HTML	80 171

# Metadata schemas

## Open Data Catalogues

- DCAT-AP - DCAT application profile for data portals in Europe
  - DCAT = Data Catalog Vocabulary, a W3C recommendation
  - GeoDCAT-AP is an extension of DCAT-AP for describing geospatial datasets, dataset series, and services.

## Geo-Catalogues

- Dataset and service metadata (ISO 19139 / INSPIRE)
- Delivery via CSW endpoints
  - Catalogue Service for the Web (CSW) is an Open Geospatial Consortium (OGC) Standard

# Agenda

1

2

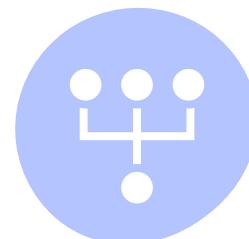
3

---

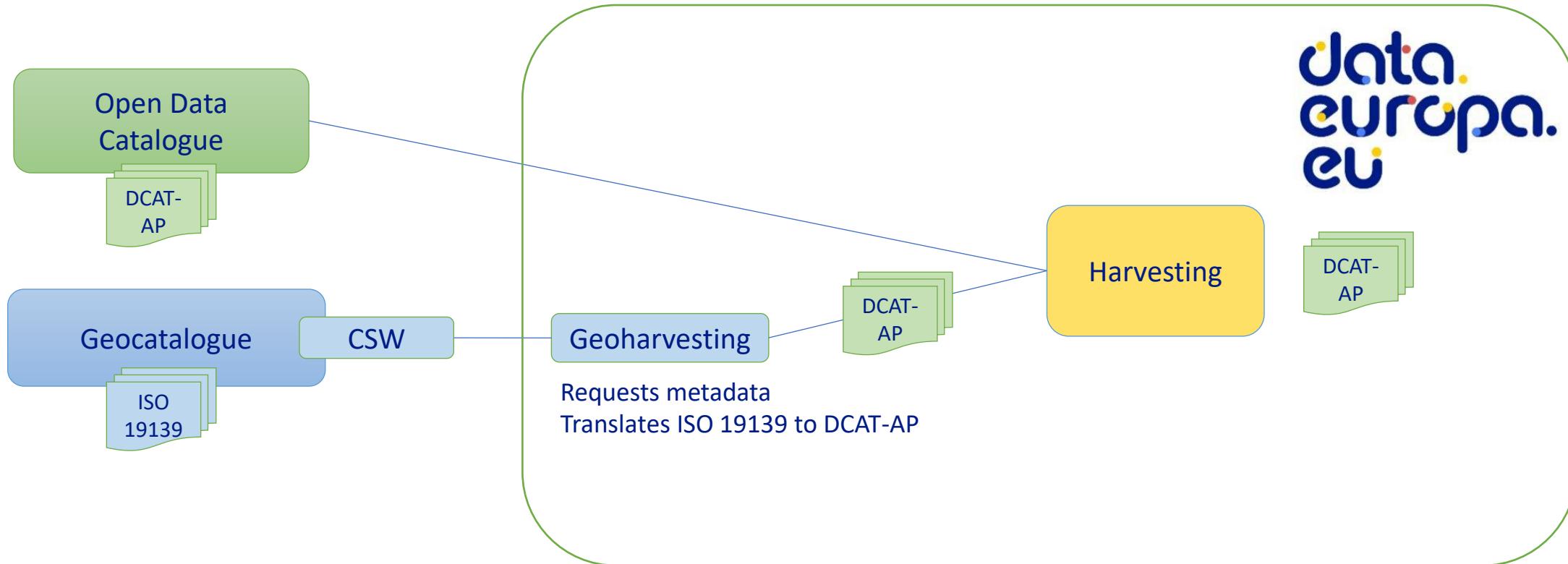
Introduction & goal of  
the webinar

Geospatial data on  
[data.europa.eu](https://data.europa.eu)

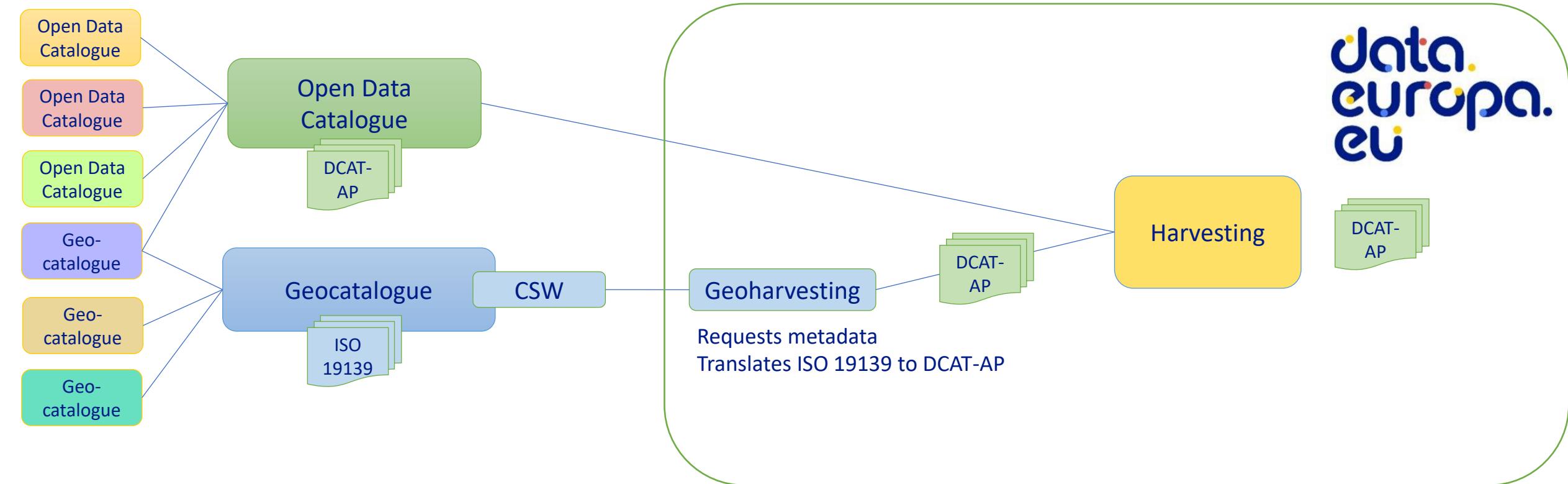
The geo-harvesting  
process



# Harvesting



# Harvesting





# The stations of a geo dataset

Photo by [m.](#) on [Unsplash](#)

# Follow one dataset from data.europa.eu to its source

The screenshot shows the data.europa.eu homepage with the European Commission logo at the top. A search bar and navigation links (Login, English, Search, Home, Datasets, Documentation, Publications, data.europa academy, News, Contact us) are also visible. Below the header, a breadcrumb trail shows the current location: Home > Datasets > Federal Agency for Nature Conservation: Main reproductive area porpoises (WMS). The main content area displays a dataset titled "Federal Agency for Nature Conservation: Main reproductive area porpoises (WMS)". The dataset is categorized under "Dataset" and is associated with "GDI-DE". It includes tabs for "Dataset", "Categories", "Quality", and "Similar datasets". A detailed description of the dataset is provided, stating: "In the German North Sea, the porpoise is in its most sensitive reproductive phase in the period from May to August. At the same time, the population exhibits a significant concentration in an area northwest of Sylt (main concentration area). In order to ensure long-term adequate evasions for porpoises and to limit the disturbances for the population to the technically justifiable and legally permissible level, it is also necessary, in the particularly sensitive phase, to keep the main concentration area free from sound intensive construction measures where cumulatively more than 1 % of the area is located within the interference radius." To the right of the description, there is a sidebar with links for "Dataset feed", "Linked data", and "Cite". Below this, detailed metadata is listed: "Updated" (31.01.2022), "Spatial" (Coordinates: [ [ [ 3.615243, 47.141961 ], [ 3.615243, 55.910558 ], [ 15.715492, 55.910558 ], [ 15.715492, 47.141961 ], [ 3.615243, 47.141961 ] ] ], Type: Polygon), and "Contact Points" (Organization Name: I 1.2 Naturschutzinformation, Geoinformation, Open Data, E-Mail: naturschutzinformation@bfn.de, Address: Konstantinstrasse 110, Bonn, 53179, Deutschland, URL: https://www.bfn.de).

# Originating thematic geocatalog

a46059c7-db4e-4f3e-8e0a-076f4. 

1 Ergebnis	Titel	Erstellt	Publiziert	Geändert
<b>FILTER</b> Typ Dienst Kategorie Schlüsselwörter Katalog Herausgeber Lage	 DIENST <b>Bundesamt für Naturschutz: Hauptfortpflanzungsgebiet Schweinswale (WMS)</b>  In der deutschen Nordsee ist der Schweinswal im Zeitraum von Mai bis August in seiner sensibelsten Fortpflanzungsphase. Zugleich weist die Population eine deutliche Konzentration in einem Gebiet nordwestlich Sylt aus (Hauptkonzentrationsgebiet). Um dauerhaft ausreichende Ausweichmöglichkeiten für Schweinswale sicherzustellen und um die Störungen für die Population auf das fachlich vertretbare und rechtlich zulässige Maß zu begrenzen, ist es in der besonders sensiblen Phase zusätzlich erforderlich, das Hauptkonzentrationsgebiet von schallintensiven Baumaßnahmen freizuhalten, bei denen sich			LETZTE ÄNDERUNG 31. Jan. 2022  ERSTELLUNGSDATUM 15. Sep. 2021

Öffentlich   

Federal Agency for Nature Conservation (BfN)  
<https://metadaten.bfn.de/BfN-MetaCat/?lang=de#/datasets/iso/a46059c7-db4e-4f3e-8e0a-076f4a74e3af>

# Originating thematic geocatalog xml

```
<gmd:MD_Metadata xmlns:gmd="http://www.isotc211.org/2005/gmd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://www.opengis.net/gml/3.2 http://http://www.isotc211.org/2005/gmd http://http://www.isotc211.org/2005/gco http://http://www.isotc211.org/2005/srv http://http://www.isotc211.org/2005/gmx http://>
  <gmd:fileIdentifier>
    <gco:CharacterString xmlns:gco="http://www.isotc211.org/2005/gco">a46059c7-db4e-4f3e-8e0a-076f4a74e3af</gco:CharacterString>
  </gmd:fileIdentifier>
  <gmd:language>
    <LanguageCode xmlns="http://www.isotc211.org/2005/gmd" codeList="http://www.loc.gov/standards/iso639-2/" codeListValue="ger" />
  </gmd:language>
  <gmd:characterSet>
    <MD_CharacterSetCode xmlns="http://www.isotc211.org/2005/gmd" codeList="http://standards.iso.org/iso/19139/resources/gmxCodelists.xml#MD_CharacterSetCode" codeListValue="UTF-8" />
  </gmd:characterSet>
  <gmd:hierarchyLevel>
    <MD_ScopeCode xmlns="http://www.isotc211.org/2005/gmd" codeList="http://standards.iso.org/iso/19139/resources/gmxCodelists.xml#MD_ScopeCode" codeListValue="service" />
  </gmd:hierarchyLevel>
  <gmd:hierarchyLevelName>
    <gco:CharacterString xmlns:gco="http://www.isotc211.org/2005/gco">Meeresnaturschutz</gco:CharacterString>
  </gmd:hierarchyLevelName>
  <gmd:contact>
    <gmd:CI_ResponsibleParty>
      <gmd:individualName>
        <gco:CharacterString xmlns:gco="http://www.isotc211.org/2005/gco">I 1.2 Naturschutzinformation, Geoinformation, Open Data</gco:CharacterString>
      </gmd:individualName>
      <gmd:organisationName>
        <gco:CharacterString xmlns:gco="http://www.isotc211.org/2005/gco">Bundesamt für Naturschutz</gco:CharacterString>
      </gmd:organisationName>
      <gmd:contactInfo>
        <gmd:CI_Contact>
          <gmd:phone>
            <gmd:CI_Telephone>
              <gmd:voice>
```

# National geocatalog

MENÜ

#Geoportal.de  
suchen. finden. verbinden.

Filter

- Art der Ressource
  - Geodatendienst(1)
- Verfügbare Dienste
  - Darstellungsdienst(1)
- Datenanbieter
  - Bundesamt für Naturschutz (BfN)(1)
- Fachgebiete
- INSPIRE
- Schlüsselwörter
- Sprache
  - Deutsch(1)

1 Treffer

Bundesamt für Naturschutz: Hauptfortpflanzungsgebiet Schweinswale (WMS)

Bundesamt für Naturschutz

In der deutschen Nordsee ist der Schweinswal im Zeitraum von Mai bis August in seiner sensibelsten Fortpflanzungsphase. Zugleich weist die Population eine deutliche Konzentration in einem Gebiet nordwestlich Sylt aus (Hauptkonzentrationsgebiet). Um dauerhaft ausreichende Ausweichmöglichkeiten für Schweinswale sicherzustellen und um die Störungen für die Population auf das fachlich vertretbare und rechtlich zulässige Maß zu begrenzen, ist es in der besonders sensiblen Phase zusätzlich erforderlich, das Hauptkonzentrationsgebiet von schallintensiven Baumaßnahmen freizuhalten, bei denen sich kumulativ mehr als 1% der Gebietsfläche innerhalb...



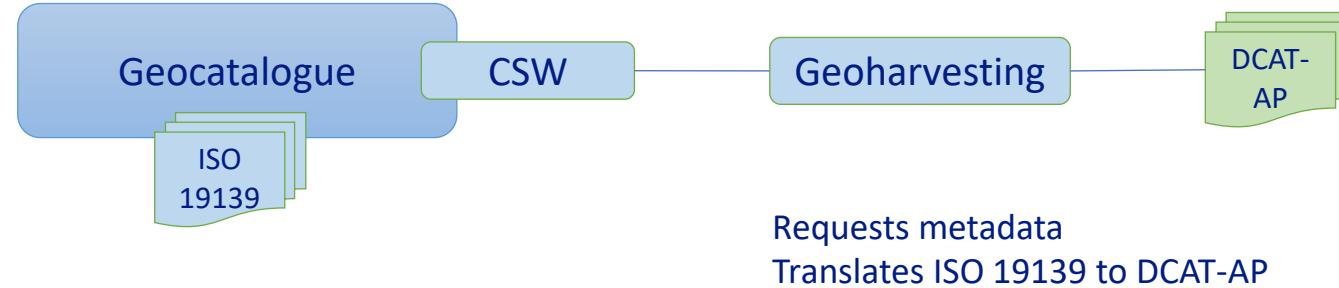
Karte Information

1 Treffer

<https://www.geoportal.de/search.html?q=a46059c7-db4e-4f3e-8e0a-076f4a74e3af>

# Harvesting and mapping to DCAT-AP

- Goal: reuse already available metadata without having to manually redefine it.
- The mapping is defined in the GeoDCAT-AP standard



<https://semiceu.github.io/GeoDCAT-AP/releases/2.0.0/>

# Harvesting and mapping to DCAT-AP

Original metadata:

```
<gmd:identificationInfo>
  <srv:SV_ServiceIdentification>
    <gmd:citation>
      <gmd:CI_Citation>
        <gmd:title>
          <gco:CharacterString>
            Bundesamt für Naturschutz: Hauptfortpflanzungsgebiet Schweinswale (WMS)
          </gco:CharacterString>
        </gmd:title>
      </gmd:CI_Citation>
    </gmd:citation>
  </srv:SV_ServiceIdentification>
</gmd:identificationInfo>
```

DCAT-AP metadata:

```
<dct:title xml:lang="de">
  Bundesamt für Naturschutz: Hauptfortpflanzungsgebiet Schweinswale (WMS)
</dct:title>
```

# Display in data.europa.eu



Login EN English

Search datasets Search

data.europa.eu - The official portal for European data

Home Datasets Documentation Publications data.europa academy News Contact us

Home > Datasets > Federal Agency for Nature Conservation: Main reproductive area porpoises (WMS)

## Federal Agency for Nature Conservation: Main reproductive area porpoises (WMS)

GDI-DE

Dataset Categories Quality Similar datasets

Dataset feed Linked data Cite

In the German North Sea, the porpoise is in its most sensitive reproductive phase in the period from May to August. At the same time, the population exhibits a significant concentration in an area northwest of Sylt (main concentration area). In order to ensure long-term adequate evasions for porpoises and to limit the disturbances for the population to the technically justifiable and legally permissible level, it is also necessary, in the particularly sensitive phase, to keep the main concentration area free from sound intensive construction measures where cumulatively more than 1 % of the area is located within the interference radius.

Updated 31.01.2022

Spatial Coordinates: [[[ 3.615243, 47.141961 ], [ 3.615243, 55.910558 ], [ 15.715492, 55.910558 ], [ 15.715492, 47.141961 ], [ 3.615243, 47.141961 ]]]  
Type: Polygon

Contact Points Organization Name: I 1.2  
Naturschutzinformation, Geoinformation, Open Data  
E-Mail: naturschutzinformation@bfn.de  
Address: Konstantinstrasse 110, Bonn, 53179, Deutschland  
URL: <https://www.bfn.de>



Σύνδεση Ελληνικά

Αναζήτηση συνόλων δεδομένων

Search

data.europa.eu - The official portal for European data

Home Δεδομένα Documentation Publications data.europa ακαδημία Νέα Επικοινωνία

Home > Σύνολο δεδομένων > Ομοσπονδιακή Υπηρεσία για τη Διατήρηση της Φύσης: Φώκαινες κύριας αναπαραγωγικής περιοχής (WMS)

## Ομοσπονδιακή Υπηρεσία για τη Διατήρηση της Φύσης: Φώκαινες κύριας αναπαραγωγικής περιοχής (WMS)

GDI-DE

Σύνολο Δεδομένων Κατηγορίες Ποιότητα Παρόμοια σύνολα δεδομένων

Σύνολο δεδομένων τροφοδοσία Συνδεδεμένα δεδομένα  
Παράθεση

Στη γερμανική Βόρεια Θάλασσα, η φώκαινα βρίσκεται στην πιο ευαίσθητη αναπαραγωγική φάση της κατά την περίοδο από τον Μάιο έως τον Αύγουστο. Ταυτόχρονα, ο πληθυσμός παρουσιάζει σημαντική συγκέντρωση σε μια περιοχή βορειοδυτικά του Sylt (κύρια περιοχή συγκέντρωσης). Προκειμένου να εξασφαλιστούν μακροπρόθεσμα επαρκείς διαφυγές για τις φώκαινες και να περιοριστούν οι διαταραχές για τον πληθυσμό στο τεχνικά δικαιολογημένο και νομικά επιτρεπτό επίπεδο, είναι επίσης αναγκαίο, στην ιδιαιτερα ευαίσθητη φάση, να διατηρηθεί η κύρια περιοχή συγκέντρωσης απαλλαγέντ από ηχητικά εντατικά κατασκευαστικά μέτρα, όπου σωρευτικά περισσότερο από το 1 % της περιοχής βρίσκεται εντός της άκτινας παρεμβολής.

Ενημέρωση 31.01.2022

Χωρικός Συντεταγμένες: [[[ 3.615243, 47.141961, 3.615243, 55.910558 ], [ 15.715492, 55.910558 ], [ 15.715492, 47.141961 ], [ 3.615243, 47.141961 ]]]  
Τύπος: Polygon

Σημείο επαφής Όνομα οργανισμού: I 1.2  
Naturschutzinformation, Geoinformation, Open Data  
E-Mail: naturschutzinformation@bfn.de  
Διεύθυνση: Konstantinstrasse 110, Bonn, 53179, Deutschland  
URL: <https://www.bfn.de>

# Distributions

## Distributions (1)

Link to the data	Format	Distribution added	Actions
<b>No title available</b> No description available  Licence   No Licence Provided Rights   otherRestrictions  <a href="#">Show less ^</a>	GeoJ		Options ▾   Download   Linked data ▾

- Services
  - Service-URL is mapped as distribution
- Datasets
  - gmd:CI\_OnlineResources are mapped as distributions

# Distributions

- Common issue: Not all gmd:CI\_OnlineResources describe distributions
  - Different function code signal different purposes

download*	online instructions for transferring data from one storage device or system to another
information	online information about the resource
offlineAccess*	online instructions for requesting the resource from the provider
order*	online order process for obtaining the resource
search	online search interface for seeking out information about the resource

\*: mapped as distribution

<https://semiceu.github.io/GeoDCAT-AP/releases/2.0.0/#coupled-resource---not-in-iso19115-core>

# Distributions

```
<gmd:distributionInfo>
  <gmd:MD_Distribution>
    <gmd:transferOptions>
      <gmd:MD_DigitalTransferOptions>
        <gmd:onLine>
          <gmd:CI_OnlineResource>
            <gmd:linkage>
              <gmd:URL>https://example.com/download-link</gmd:URL>
            </gmd:linkage>
            <gmd:name>
              <gco:CharacterString>Download dataset</gco:CharacterString>
            </gmd:name>
            <gmd:function>
              <gmd:CI_OnLineFunctionCode
                codeList=https://standards.iso.org/iso/19139/resources/gmxCodelists.xml#CI\_OnLineFunctionCode
                codeListValue="download,,"
              />
            </gmd:function>
          </gmd:CI_OnlineResource>
        </gmd:onLine>
      </gmd:MD_DigitalTransferOptions>
    </gmd:transferOptions>
  </gmd:MD_Distribution>
</gmd:distributionInfo>
```

# Visualise geodatasets

- Preview in map
  - Web Map Service (WMS)
  - GeoJSON

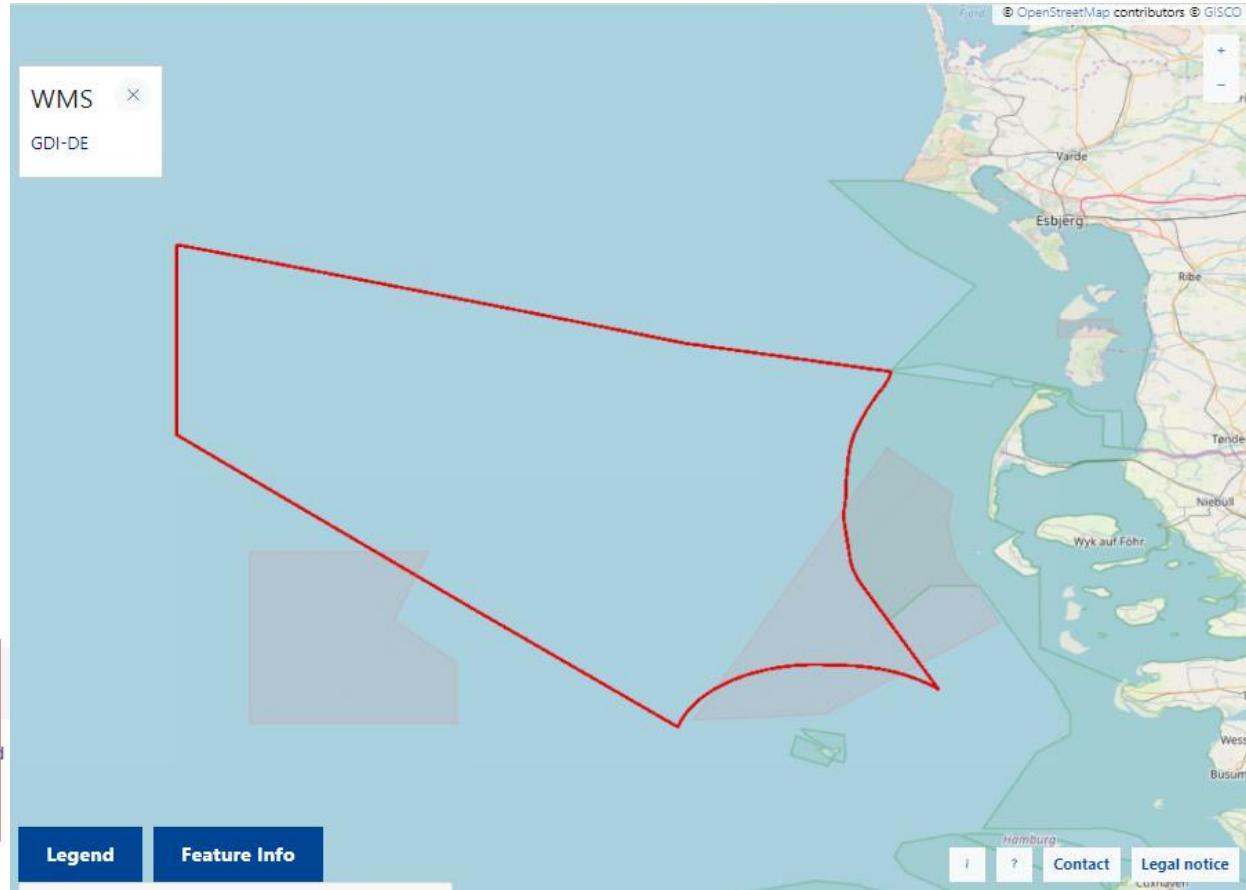
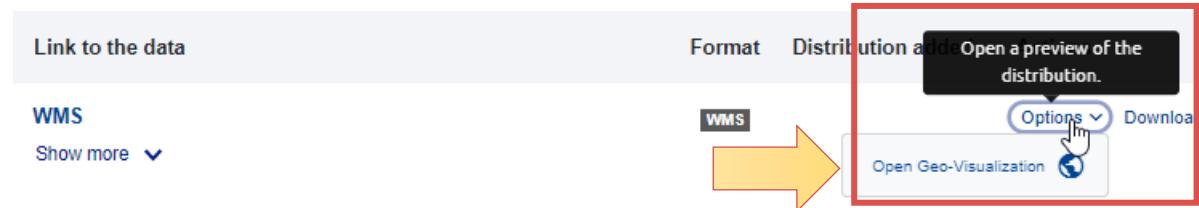
## Distributions (1)

Link to the data

Format WMS Distribution aide Open a preview of the distribution.

WMS Options Download

Open Geo-Visualization



# How to be harvested?

- First step: Contact form
  - If you manage a (geo)portal containing public sector information and want it to be harvested
- Next steps:
  - You will be asked to provide information
  - We will set up the harvesting in a test environment
  - Finetuning if we encounter problems or have suggestions

<https://data.europa.eu/en/contact-us>

User Request

Language \*

English (en)

Message\*

Drag & Drop or Browse

Which subject are you enquiring about? \*

Please select...

Please select...  
Request to update a dataset  
Request for a specific dataset  
Suggestion for a new dataset  
Request for another format  
Error report  
Question on SPARQL / API  
Question on copyright  
General information  
Other questions  
Request to be harvested by data.europa.eu

0 of 3

# Agenda

1

2

3

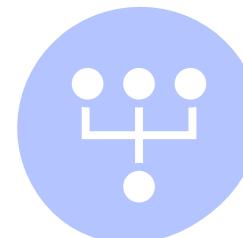
4

Introduction & goal of  
the webinar

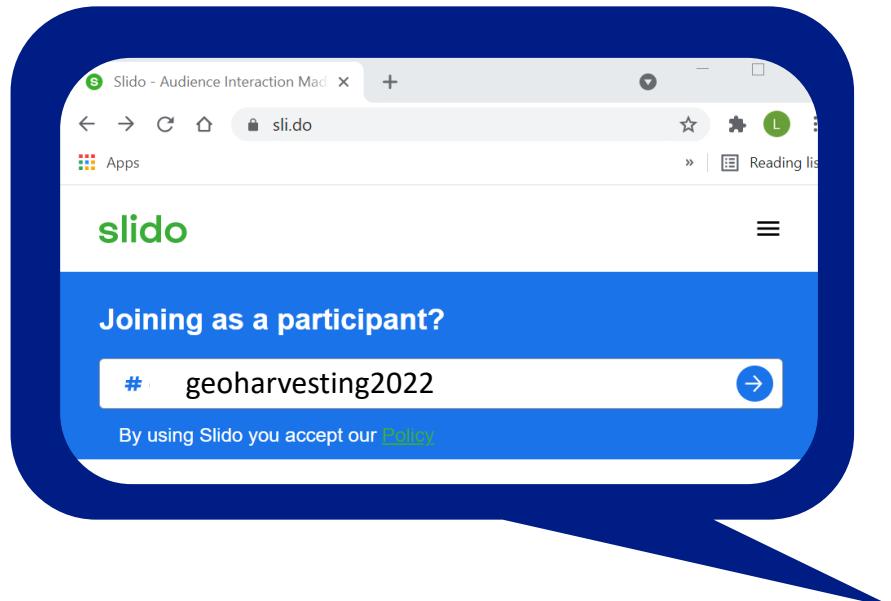
Geospatial data on  
[data.europa.eu](https://data.europa.eu)

The geo-harvesting  
process

Q&A



# Questions?



# Agenda



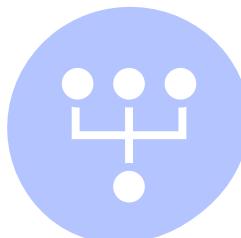
Introduction & goal of  
the webinar



Geospatial data on  
[data.europa.eu](https://data.europa.eu)



The geo-harvesting  
process



Q&A



Summary &  
feedback



# Summary

- data.europa.eu includes descriptions for geospatial data
  - Geoservices (WMS, WFS,...), geodata (GeoJSON, Shape, KML, GeoPackage...), files with coordinates or indirect spatial information
- data.europa.eu harvest metadata from open data catalogues and geocatalogues
- The geo-harvesting process
  - requests the metadata from the originating catalogues
  - performs a mapping between the geo-metadata (ISO 19139) and what is needed for data.europa.eu (DCAT-AP)

Please provide  
your feedback and  
help us plan for  
2023!



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