In situ

Understanding CORDA

Facilitating NMCAs role as Data Providers for Copernicus

EuroGeographics Webinar

27 June 2023

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Introduction – Copernicus and In Situ Data

In situ

Key user requirements cannot be met unless Copernicus has access to essential in situ data

Copernicus in situ data: observations, reference and ancillary data licensed or provided for use in Copernicus

All Copernicus Services require in situ data to produce and validate their products

The Copernicus Space Component requires in situ data for calibration and validation of Sentinel observations

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Introduction – Copernicus and In Situ Data

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Where is in-situ data coming from?

- Predominately from national data owners and providers → **YOU**

- Organised in European or global networks, organisations, and European Research Infrastructures.
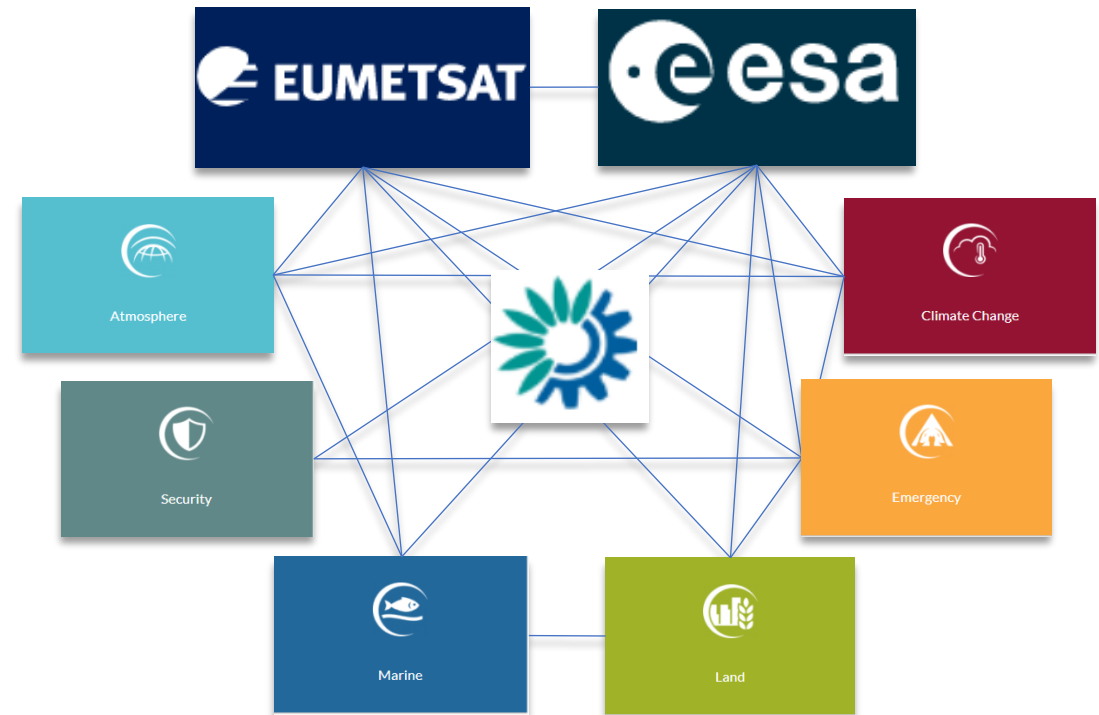
Introduction – role of EEA in Copernicus In Situ

In situ

- **Entrusted Entities** access in situ data directly according to their operational needs.

  The Entrusted Entities are responsible for day-to-day activities, setting up and managing technical interfaces;

- **The EEA** intervenes in cases where a coordinated approach to accessing in situ data is required at a programmatic level.
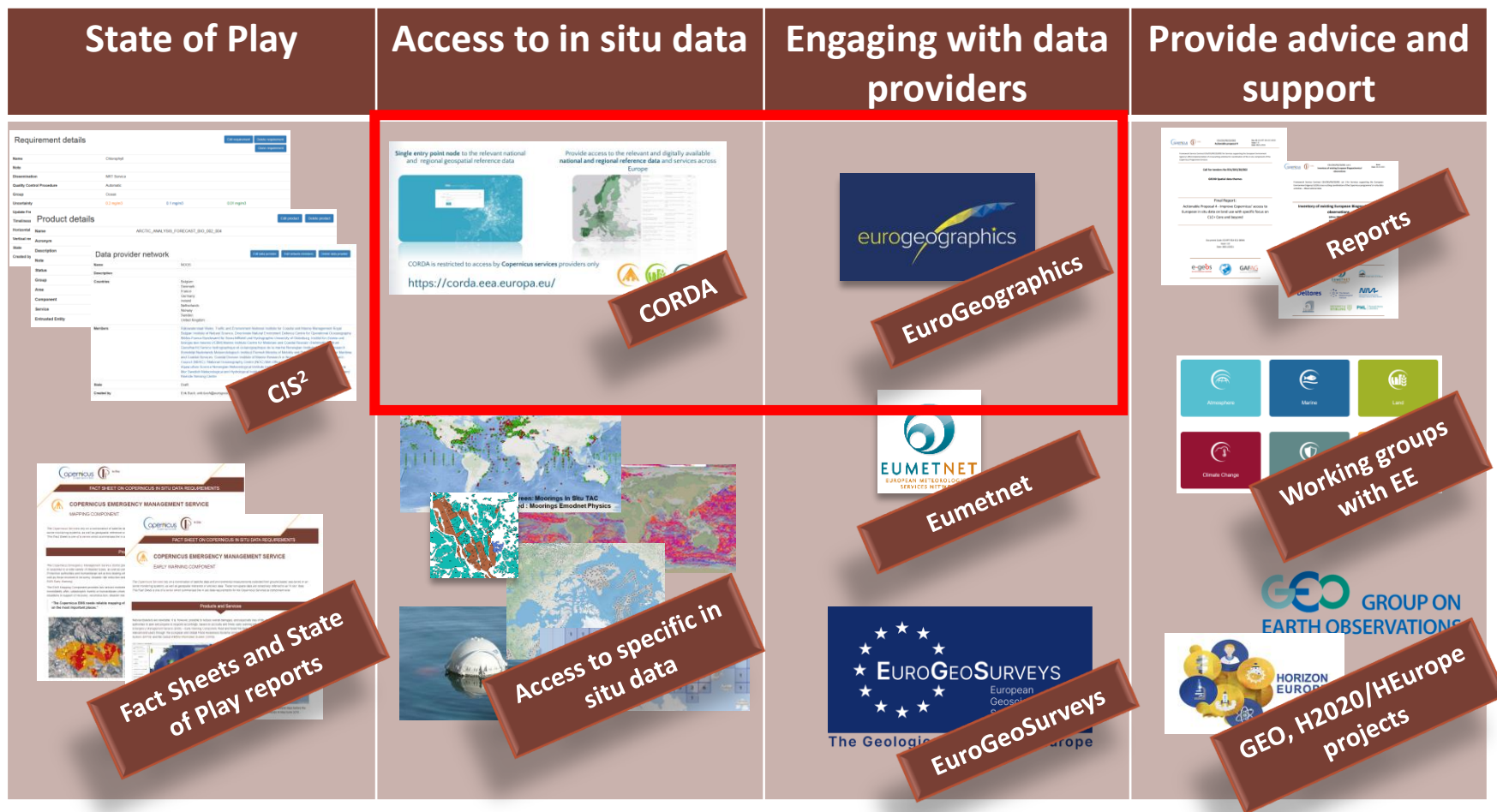
Introduction - Areas of work

In situ

State of Play	Access to in situ data	Engaging with data providers	Provide advice and support

CIS²

Fact Sheets and State of Play reports

CORDA

Access to specific in situ data

EuroGeographics

Eumetnet

EuroGeoSurveys

Reports

Working groups with EE

GEO, H2020/HEurope projects

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CORDA as a single entry point node

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CORDA provides a centralized gateway or a **single entry point node** for accessing the geospatial reference data from the European countries participating in the Copernicus program.

The **European Environment Agency** ensures that only authorized users, Copernicus service providers, have access to the index of URLs containing relevant national and regional reference data and services.

https://corda.eea.europa.eu

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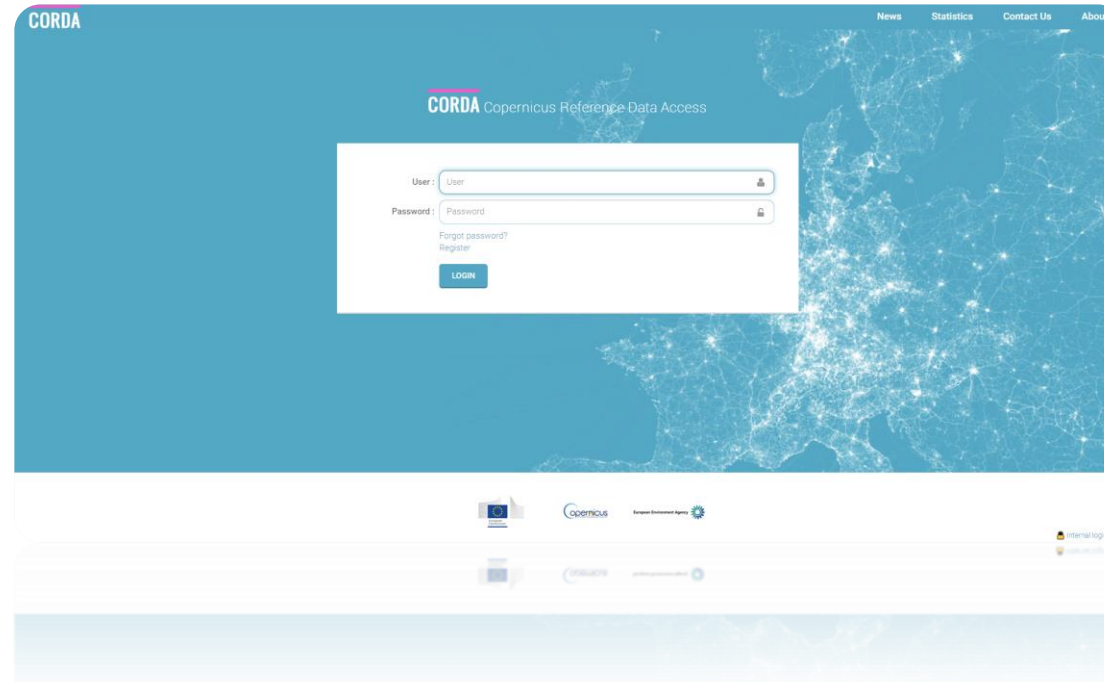
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Access restricted to Copernicus service providers

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To ensure secure access to the data, CORDA implements authenticated access, which allows only authorised users to use the geospatial reference data.

CORDA manages datasets by user groups, enabling efficient organization and **control over the information** based on specific user requirements and roles.
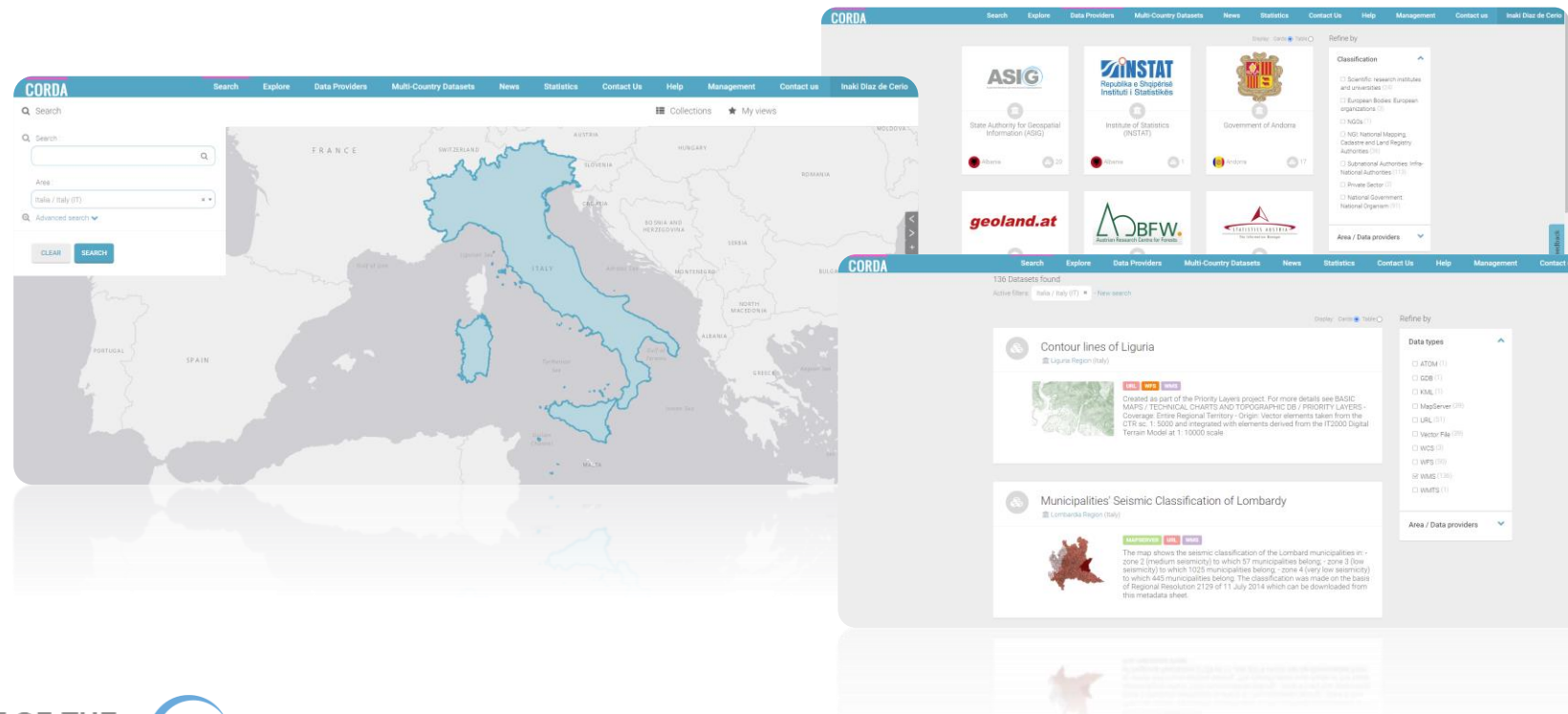
Index of URLs to relevant national and regional reference data

In situ

CORDA offers a range of **advanced search functionalities**, including spatial search capabilities, to enhance the accessibility and usability of the geospatial reference data

The datasets available through CORDA are **classified thematically**, allowing users to browse and locate the desired data based on specific topics or areas of interest

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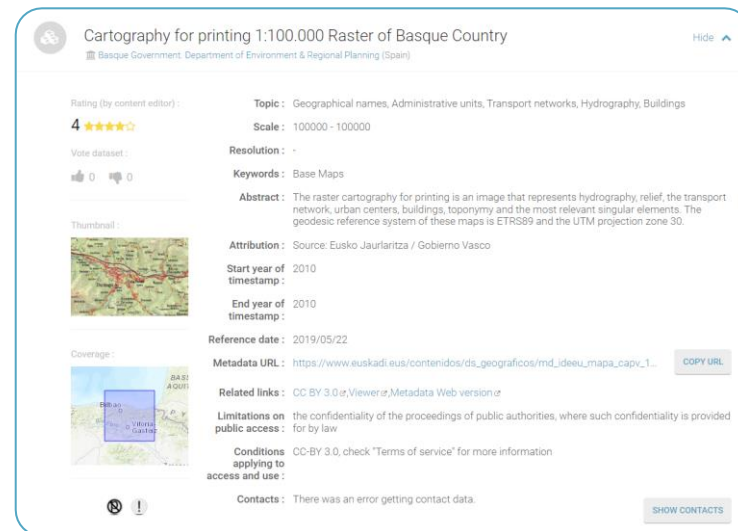Implemented by

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Access to data providers

In situ

CORDA also offers **access to data providers** so that they can review how their data is made available, as well as access to data monitoring services.

By requesting access through the portal, data providers (NMCAs) can review published geospatial reference data and use available tools and support email to contact the **CORDA helpdesk and content team** for assistance.

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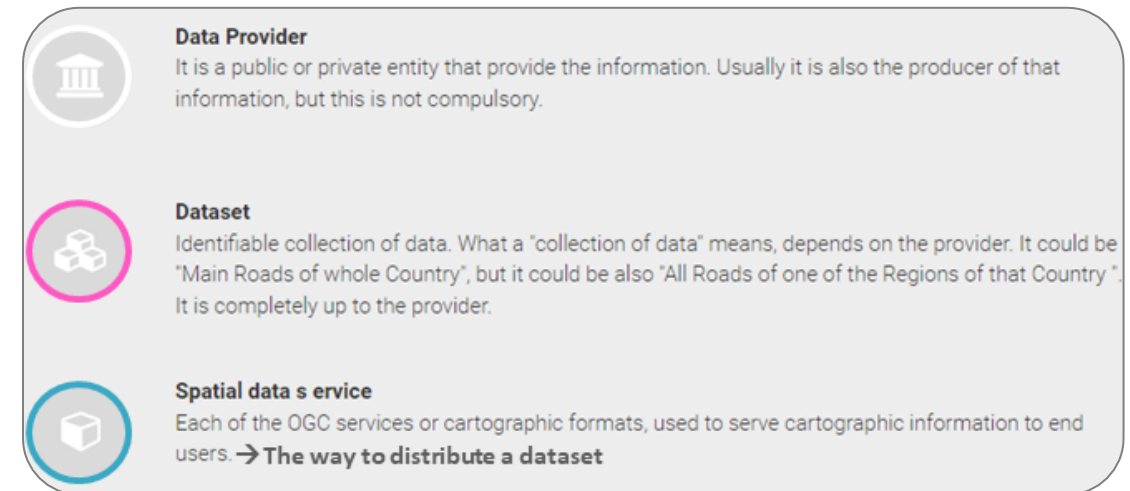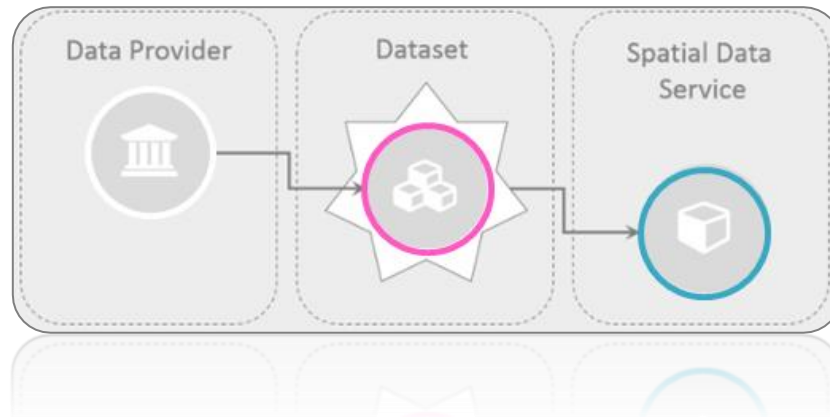Europe's eyes on Earth

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Content: Data codified to ensure that just the authorized users have access

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- When a **Spatial Data Service (SDS)** is granted by the Data Provider to be used by a specific Copernicus Service, the SDS is shown in CORDA **ONLY** for authorized users for that Copernicus Service.

- If all the SDS of a **Datasets** are not authorized for a Specific Copernicus Service Group, that dataset does not appear in CORDA for the members of that Copernicus Service.

- When a **Data Provider** grants a "not open" Spatial Data Service (SDS) to be used by any of the three Copernicus Services using CORDA, that SDS is codified in CORDA database as "restricted" to distinguish it from the open SDS.

Data Provider
It is a public or private entity that provide the information. Usually it is also the producer of that information, but this is not compulsory.

Dataset
Identifiable collection of data. What a "collection of data" means, depends on the provider. It could be "Main Roads of whole Country", but it could be also "All Roads of one of the Regions of that Country". It is completely up to the provider.

Spatial data s ervice
Each of the OGC services or cartographic formats, used to serve cartographic information to end users. → **The way to distribute a dataset**

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Data As-Is and Multi-Country (MC) datasets

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Indexed **data As-Is**, from the servers of the data providers.

CORDA generates **Multi-Country datasets** when working with open data, or having agreement to share the information with all the Copernicus Services that are using CORDA.
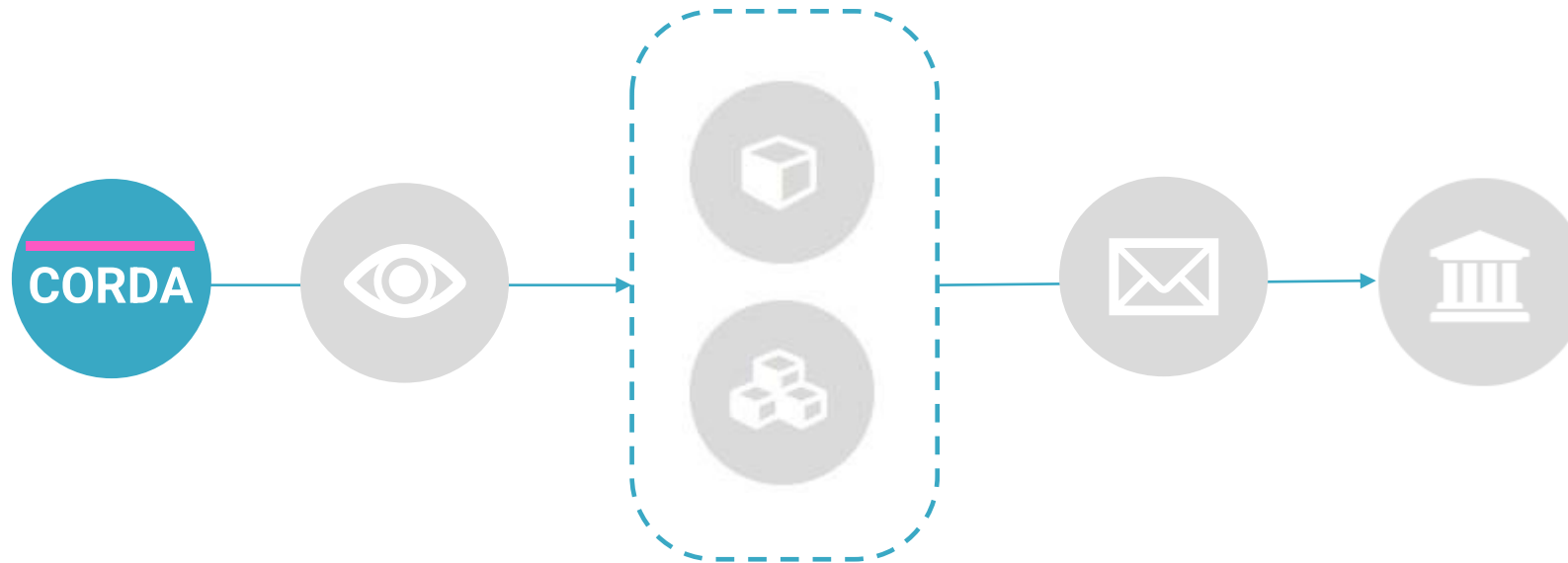
Semantic mapping, based on Copernicus requirements, benefitting from INSPIRE investments

In the Metadata of Multi-Country datasets accurate information of the original data used to create them is provided.

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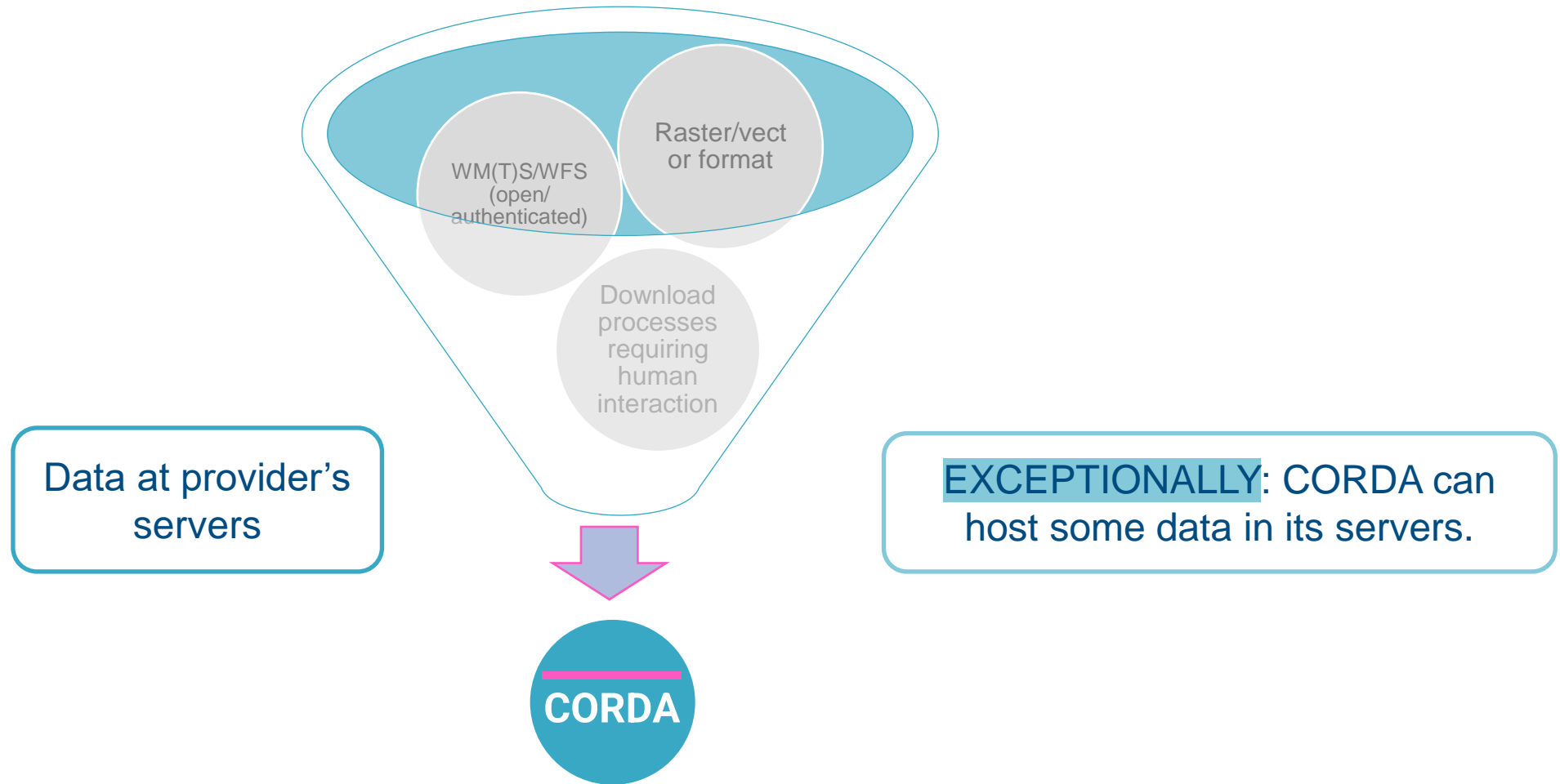
Data As-Is and Multi-Country (MC)

In situ

The issues found during Monitoring and Multi-Country process are shared with the data provider

Supports a wide format of resource types

In situ

WM(T)S/WFS (open/authenticated)

Raster/vect or format

Download processes requiring human interaction

Data at provider's servers

EXCEPTIONALLY: CORDA can host some data in its servers.

CORDA

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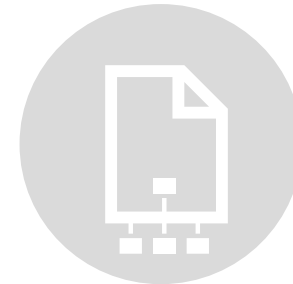# Supports a wide format of resource types

In situ

Metadata

Correct categorization of the dataset

Automatic detection of changes

Evaluation of the suitability

+

Data Dictionary

Data Model

In absence of INSPIRE conformant datasets

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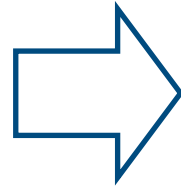Implemented by European Environment Agency

Importance of providing as many attributes as possible

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The effort of provision as much information as possible, such as the not compulsory INSPIRE attributes, is worthwhile.

The data becomes much more useful for the benefit of institutions and citizens.

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Next steps in the implementation of the Copernicus Agreement

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- **Continue promoting the signature of Annexes by EG members** with EG Head Office to ensure as many members as possible adhere to the agreement.

- **Review and ensure availability** of licensed datasets via CORDA by EEA/CORDA Team with the support of EG Head Office
  - We will start with members who have signed the three Annexes
  - We will review the offering in CORDA against the Audit of EG Members data and the Annex to detect possible gaps
  - We will prepare an Excel sheet with the current CORDA content to be reviewed by each EG member, indicating possible gaps and issues
  - We will provide technical support and organise individual meetings to address potential barriers for data sharing

- **Provision of CORDA guidance and technical webinars** for NMCAs

- **Prepare a short report on barriers and challenges** by Copernicus Services in accessing NMCAs data

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Any questions?

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Thank you for your attention!