



EEA's FAIR future in a green data space

Maturing the data ecosystem

Stefan Jensen | GoPEG webinar 28. February 2023

FAIR data as pre-condition ...

What is FAIR DATA?



Data and supplementary materials have sufficiently rich metadata and a unique and persistent identifier.

FINDABLE



Metadata and data are understandable to humans and machines. Data is deposited in a trusted repository.

ACCESSIBLE



Metadata use a formal, accessible, shared, and broadly applicable language for knowledge representation.

INTEROPERABLE



Data and collections have a clear usage licenses and provide accurate information on provenance.

REUSABLE

EEAs activities around FAIR DATA

High quality, in-depth metadata in the EEA Spatial Data Infrastructure **(F)**

Data available directly through EEA Data Service or accessible through thematic platforms **(A)**

Based on INSPIRE and domain standards **(I)**

Covered by EEAs free and open data policy **(R)**

PS: This is applied beyond research data

... to contribute to Data Spaces



Many similarities:

FAIR principles

Additional:

Trusted exchange,
Identity management,
certification

Clear value proposition
(similar to data management
supported by Reportnet 3)

Specific governance arrangements
(cooperation agreements)

Our initial FAIR building block – EEA SDI catalogue of geospatial datasets

EEA SDI
PDS node





Biodiversity
Biodiversity related datasets



Climate-ADAPT
Climate Change Adaptation related datasets



Copernicus Land
Copernicus Land Monitoring Service Pan-European and Local products



EARL
Environmental Accounting Reference Layers



FISE
Forest Information Service for Europe metadata catalogue (BETA)



GEOSS
EEA datasets exposed through the GEOSS portal



Geospatial reference
Datasets for geospatial reference



INSPIRE Priority Datasets
INSPIRE Pan-European priority datasets for e-reporting

	<ul style="list-style-type: none">natural areas protectionprotected areaspecies
Spatial scope	<ul style="list-style-type: none">European
INSPIRE priority data set	<ul style="list-style-type: none">Natura 2000 sites (Habitats Directive)Natura 2000 sites (Birds Directive)Directive 2009/147/ECDirective 92/43/EEC
Language	<ul style="list-style-type: none">English
Resource identifier	<ul style="list-style-type: none">eea_v_3035_100_k_natura2000_p_2019_v10_r00
Legal constraints	No limitations to public access There are specific terms and conditions for downloading boundary data within the United Kingdom if you

INSPIRE tags

INSPIRE Priority Datasets

Search ...

Nothing in basket

Active filters: STATUS Not obsolete / superseded

Filter

TYPE OF RESOURCES

GEMET KEYWORDS

TOPICS

INSPIRE THEMES

KEYWORDS

List of PDS

Sorted by title

Air Quality Zones and Agglomerations reported under the Ambient Air Quality...

The dataset described here presents the geometries of the zones and agglomerations reported since 2013 by Member States in compliance with the Ambient Air Quality Directives and successfully validated by the EEA's Quality Control system. In accordance with the procedure referred to in Article 5 of

Bathing water quality in 2019 - Web Service

The map service shows the location of European bathing waters and their quality for the 2019 bathing season, as well as for the ten previous bathing seasons. The symbology of the bathing waters shows the quality status in the most recent bathing season. The data are presented on two levels of detail: country (less detailed)

Biogeographical regions, Europe 2016, version 1

The biogeographical regions dataset contains the official delineations used in the Habitats Directive (92/43/EEC) and for the EMERALD Network set up under the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention). The Pannonic region of Serbia was missing in previous versions and this has

Conservation status of habitat types 2007-2012, Sep. 2014

Gridded Distribution of Habitats as reported during the Article 17 of the Habitats Directive (92/43/EEC) covering the period 2007 to 2012. The data covers the EU 27 (2007). All Member States are requested by the Habitats Directive (92/43/EEC) to monitor habitat types and species considered to be of Community interest. Article

Conservation status of habitat types 2007-2012 aggregated at EU 27 (2007)...

Gridded Distribution of Habitats as reported during the Article 17 of the Habitats Directive (92/43/EEC) covering the period 2007 to 2012. The data covers the EU 27 (2007). All Member

Conservation status of habitat types 2007-2012 aggregated by Member State, Sep...

Gridded Distribution of Habitats as reported during the Article 17 of the Habitats Directive (92/43/EEC) covering the period 2007 to 2012. The data covers the EU 27 (2007). All Member

Metadata code list values

Show only valid items

Switch to hierarchy view

Filter Label	Filter Legislation	Filter Parent	Filter Governance level	Filter Validity
Label	Legislation	Parent	Governance level	Status
Actual pollutant releases (European Pollutant Release and Transfer Register)	Regulation (EC) 166/2006	Regulation (EC) 166/2006	eu-technical	Valid
Agglomerations (Air Quality Directive)	Directive 2008/50/EC	Management zones and agglomerations (Air Quality Directive)	eu-technical	Valid
Agglomerations (Noise Directive)	Directive 2002/49/EC	Directive 2002/49/EC	eu-technical	Valid
Agglomerations (Urban Waste Water Treatment Directive)	Directive 91/271/EEC	Directive 91/271/EEC	eu-technical	Valid
Agglomerations - aircraft noise exposure delineation (Noise Directive)	Directive 2002/49/EC	Environmental noise exposure (Noise Directive)	eu-technical	Valid
Agglomerations - aircraft noise exposure delineation - night (Noise Directive)	Directive 2002/49/EC	Agglomerations - aircraft noise exposure delineation (Noise Directive)	eu-technical	Valid
Agglomerations - aircraft noise exposure delineation day-evening-night (Noise Directive)	Directive 2002/49/EC	Agglomerations - aircraft noise exposure delineation (Noise Directive)	eu-technical	Valid
Agglomerations - industrial noise exposure delineation (Noise Directive)	Directive 2002/49/EC	Environmental noise exposure (Noise Directive)	eu-technical	Valid
Agglomerations - industrial noise exposure delineation - night (Noise Directive)	Directive 2002/49/EC	Agglomerations - industrial noise exposure delineation (Noise Directive)	eu-technical	Valid

INSPIRE Registry

Data spaces – room to engage and further define

Common European data spaces

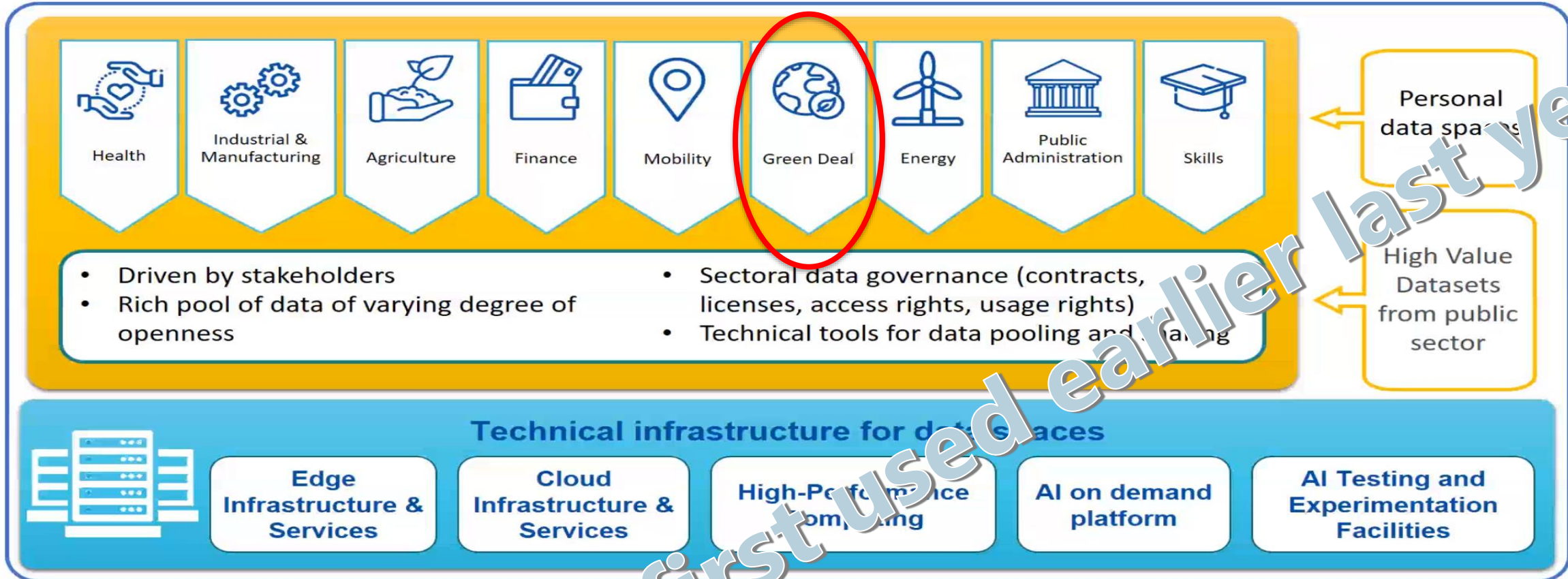


Image courtesy: European Commission

Including e.g.: Open Science data cloud, Copernicus DIAS, GAIA-X federated platform

Evolution of EEAs future data ecosystem



© Gabriela Delcheva REDISCOVER Nature/EEA

EEA SDI – **EEA data hub** (3/2023)

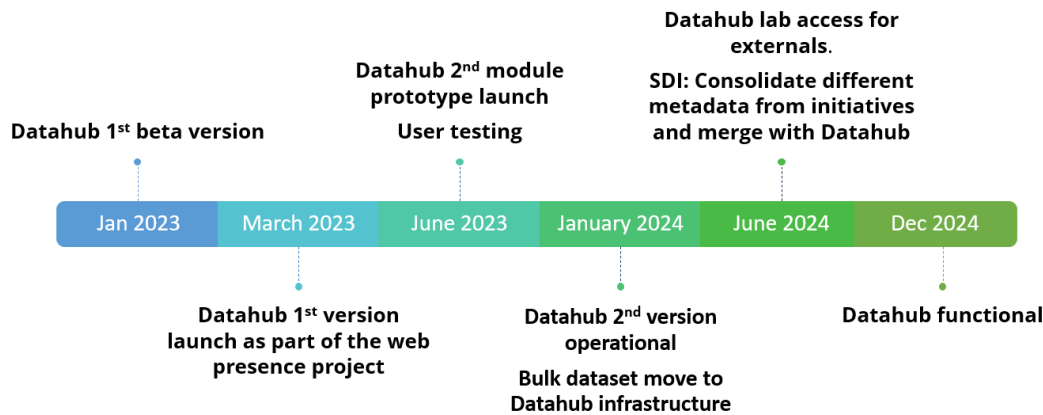
EEA/Eionet thematic Information platforms -
EEA integrated information systems
(2023/2024)

CLMS website - WEkEO services - **Copernicus
Land Data Store** (2024)

Reportnet 2 - **Reportnet 3** (since 2021)

EEA data hub – find and access all (spatial and non-spatial) EEA data

Datahub implementation roadmap



Find



Data origin: [Data & Maps](#)

EEA Themes: [Biodiversity - Ecosystems](#)

Formats: [SHP](#) [Geopackage](#)

[Download](#) [+ a b l e a u](#) [Power BI](#)

Easy data access

Natura 2000 is the key instrument to protect biodiversity in the European Union. It is an ecological network of protected areas, set up to ensure the survival of Europe's most valuable species and habitats.

Quick filters

Year:

Biographical region:

[Apply](#)

Result

SPECIES	BIOREGION	DESIGNATIONSTATUS	DIRECTIVESPECIES	HABITATS	HABITATCLASS	
COUNTRY_CODE	SITECODE	SPECIESNAME	SPECIESCODE	REF_SPGROUP	SPGROUP	SENSITIVE
AT	AT1101112	Anthus campestris	A255		Birds	
AT	AT1101112	Artemisia panicul	1917	Plants	Plants	
AT	AT1101112	Lanius collurio	A338		Birds	
AT	AT1101112	Pulsatilla grandis	2093	Plants	Plants	
AT	AT1101112	Sylvia nisoria	A307		Birds	
AT	AT1102112	Anthus campestris	A255		Birds	
AT	AT1102112	Rhabdastrella rhabdastrellus	1108	Mammals	Mammals	0

Natura 2000 is an ecological network of protected areas, set up to ensure the survival of Europe's most valuable species and habitats. Natura 2000 is based on the 1979 Birds Directive and the 1992 Habitats Directive. Natura 2000 is the key instrument to protect biodiversity in the European Union. The European database of Natura 2000 sites consists of a compilation of the data submitted by the Member States of the European Union and is generally updated once a year.

Data

Natura 2000 (vector) - version 2021, Apr. 2022 [SHP](#) [Geopackage](#) [ESR REST](#) [OGC WMS](#)

Temporal coverage: 2021 [Metadata Facsheet](#)

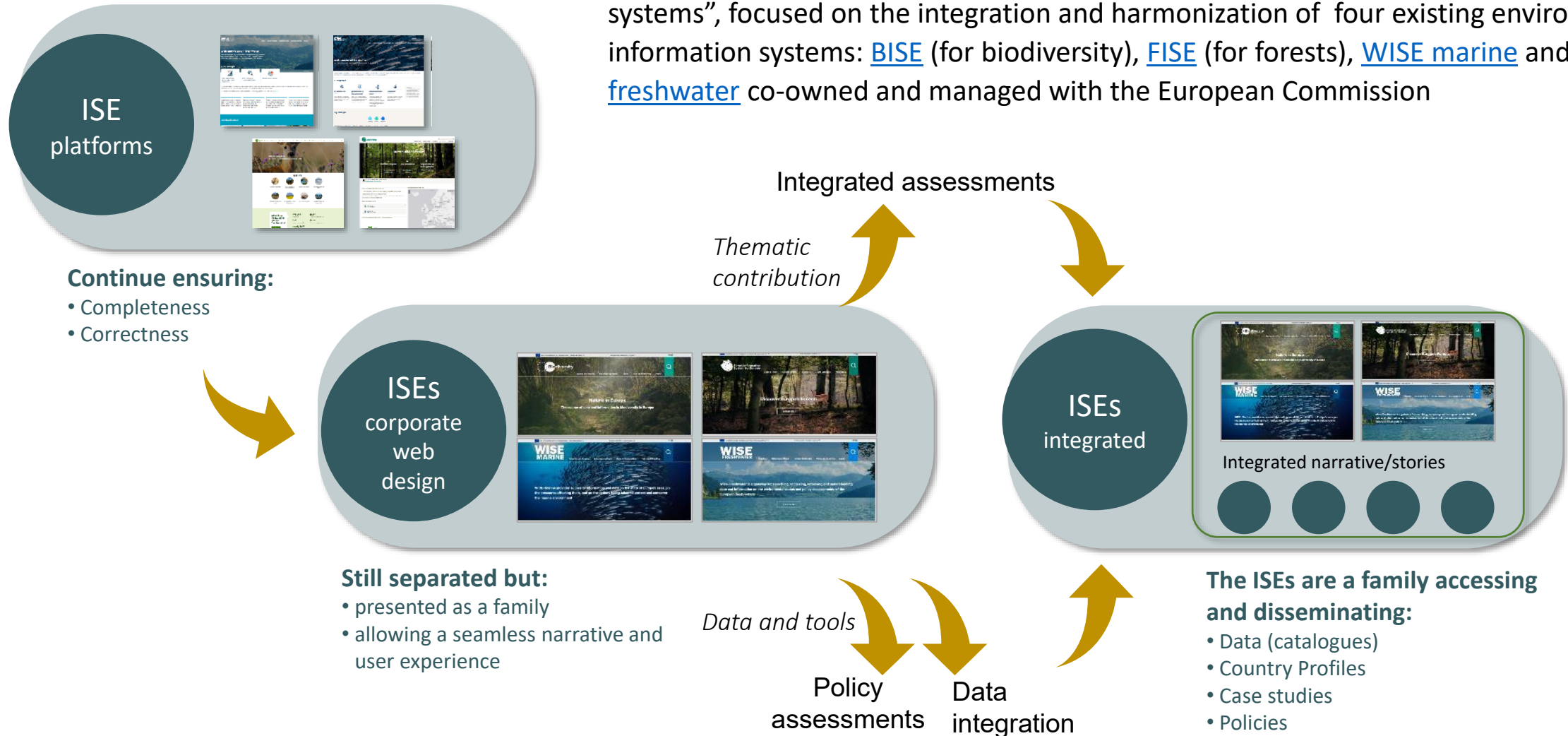
Download:

- [Direct download](#)
- [WebDAV: Natura2000_end2021_epsg3035](#)
- [WebDAV: Natura2000_end2021](#)

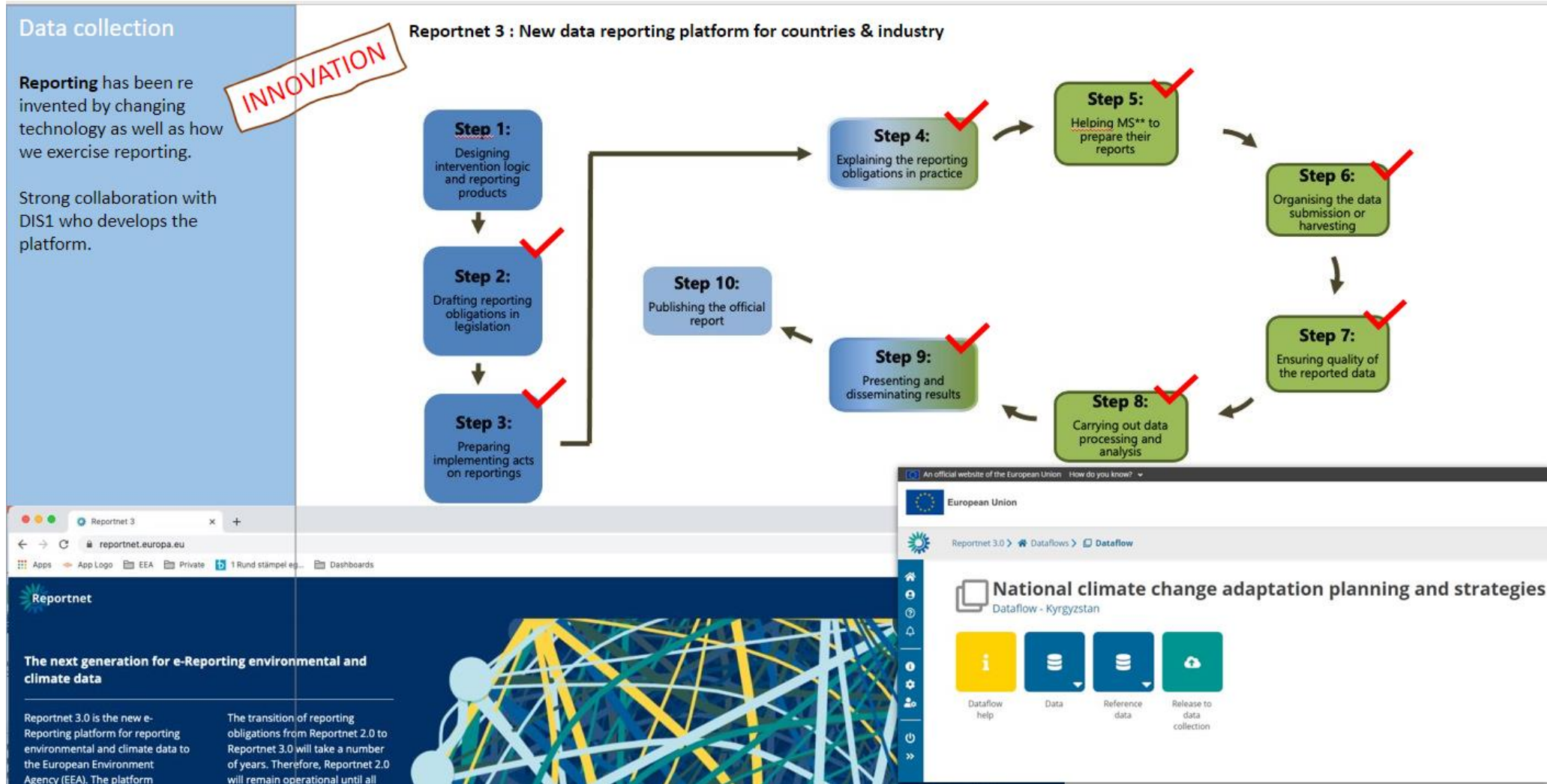
Access and explore

Creating the family of integrated information systems - roadmap

In 2022, the EEA started working to the Flagship product "Integrated Information systems", focused on the integration and harmonization of four existing environmental information systems: [BISE](#) (for biodiversity), [FISE](#) (for forests), [WISE marine](#) and [WISE freshwater](#) co-owned and managed with the European Commission



Modernising and automating the data value chain – Reportnet 3



Developing the Copernicus Land Data Store

Purpose:

Simplify the work with cloud based big-geo-data:

- Harmonised access to a wide range of geo-data (including in situ)
- Provide production and exploitation facilities (Reduce cloud/big data related complexity)

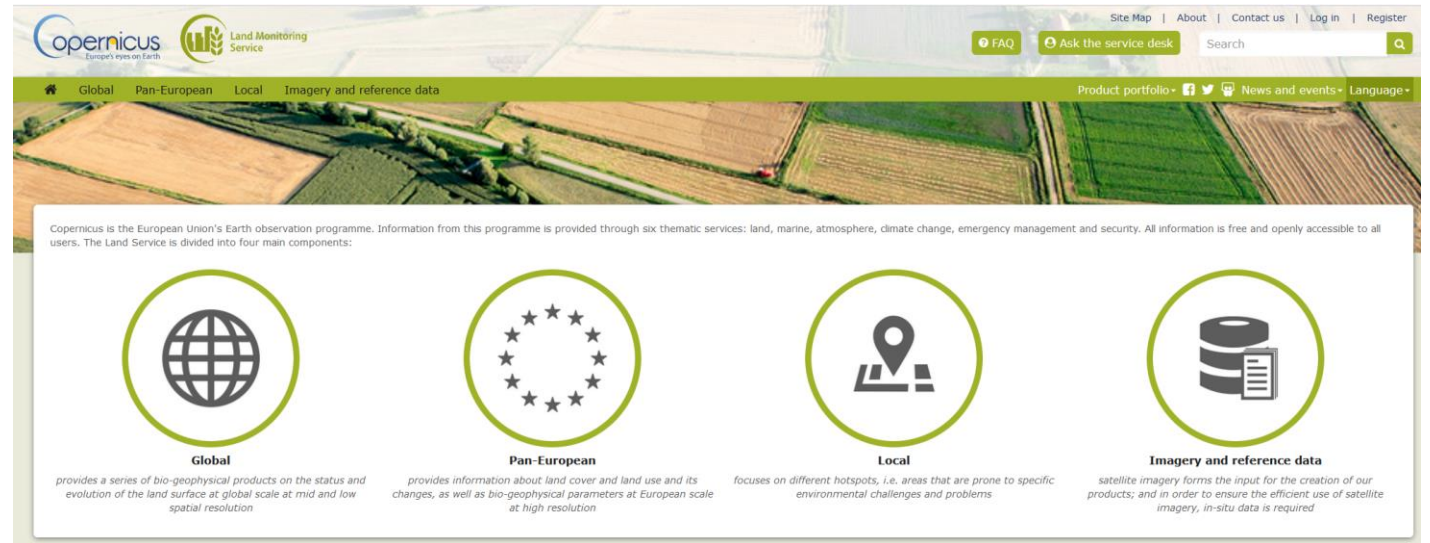
Complementing WEkEO

(raw data access and analytics)



and the CLMS portal

(product information and distribution)



Schedule:

- 2023: asses user requirements, prepare technical specifications
- 2024: development and planned launch

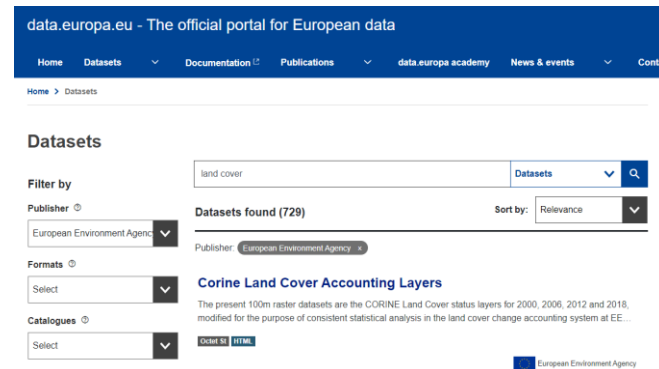
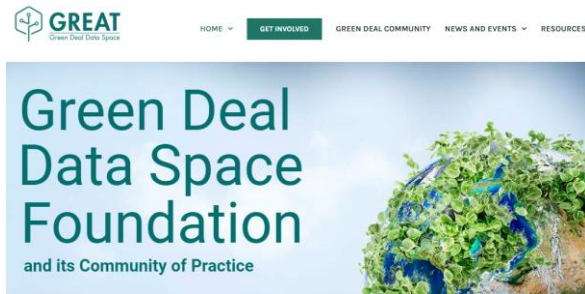
Other EEA contributions to the Green (Deal) Data Space

Co-chairing **EU Green Data Task force** (Members DG ENV, CLIMA, RTD, JRC, ESTAT, AGRI, DEFIS, FISMA, EEA)

- Governance and data policy check
- Establish Green data inventory
- Green data user needs and requirements (based on pilots prioritised by EKC)
Zero pollution, EuroGEO, IACS, Citizen Science ...

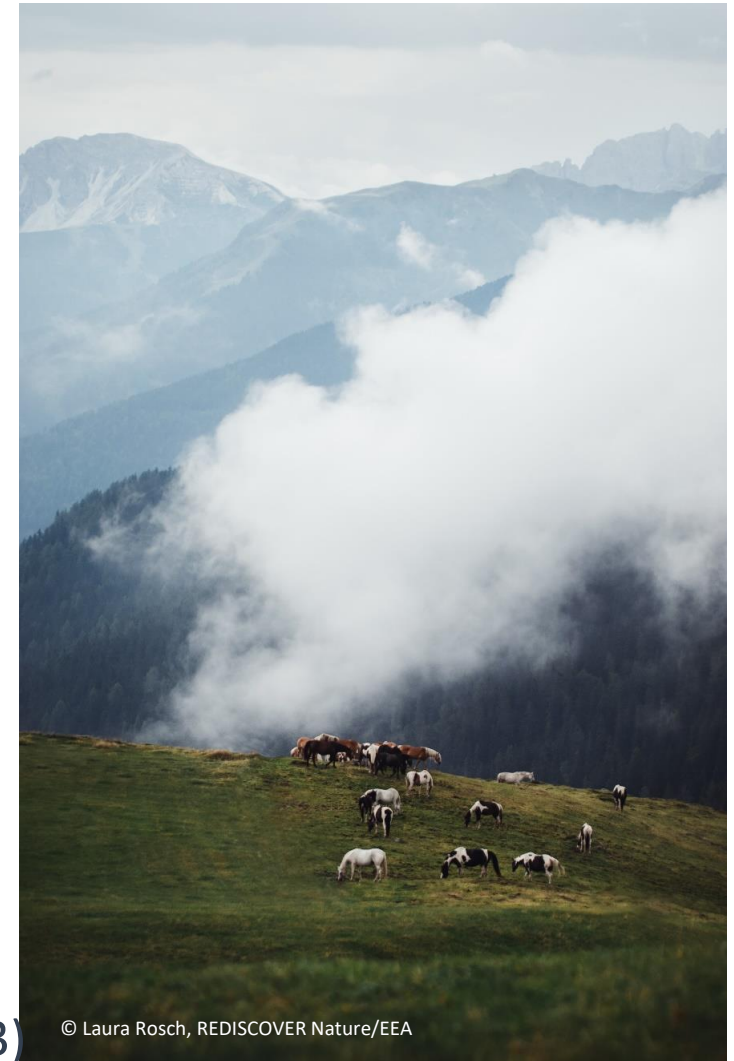
To be continued!

Providing input from the EU institutional side to the GREAT project



Providing real time data sharing to the **EU data portal** (to be set up in 2023)

... and then whatever is more to the **Green Deal Data Space**



© Laura Rosch, REDISCOVER Nature/EEA

Thank you

