DATA SPACES SUPPORT CENTRE

DSSC Insight Series

The free flow of data from source to fruition

6 June 2024 | 16:00 to 17:30 CEST | online

Funded by the European Union

The Data Spaces Support Centre receives funding from the European Union Digital Europe Programme under grant agreement n° 101083412.

DATA SPACES SUPPORT CENTRE

- **Intro** – Gianfranco Cecconi, Executive Director, Data Spaces Support Centre
- **The DSSC Toolbox and validation scheme** – Michiel Stornebrink, Senior Advisor Data Sharing and Interoperability, TNO & Sonia Jimenez, Director Data Spaces Technology for International Data Spaces Association
- **What can open data do for common European data spaces**? - Elena Simperl, Professor of computer science at King's College London and director of research at the Open Data Institute, Marcin Baryn, DHoU Eu Open Data, Publications Office of the EU, European Commission
- **Q&A (You can also ask questions in the chat!)**

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This webinar is recorded. Did you know? Previous DSSC insight series recordings are available on our Youtube channel. Videos from our annual event are also available!

Subscribe to our YouTube channel here

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Agenda

DATA SPACES SUPPORT CENTRE

Toolbox

Michiel Stornebrink

Validation scheme

Sonia Jiménez

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Toolbox

Michiel Stornebrink

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Example of technical tools for the DSSC Toolbox

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Implementation	Component	Related building block(s)
• EDC connector • VTT DISL connector • Telekom DIH Connector • TSG connector • ….	• Participant Agent (aka Connector)	• Nearly all technical BBs

Link to reports

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Example of business and organisational tools for the DSSC Toolbox

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Implementation	Component*	Related building block(s)
• Sitra rulebook template #9 ‘Dataset Terms of Use’ • …	• Data Product Contract template	• Contractual Framework

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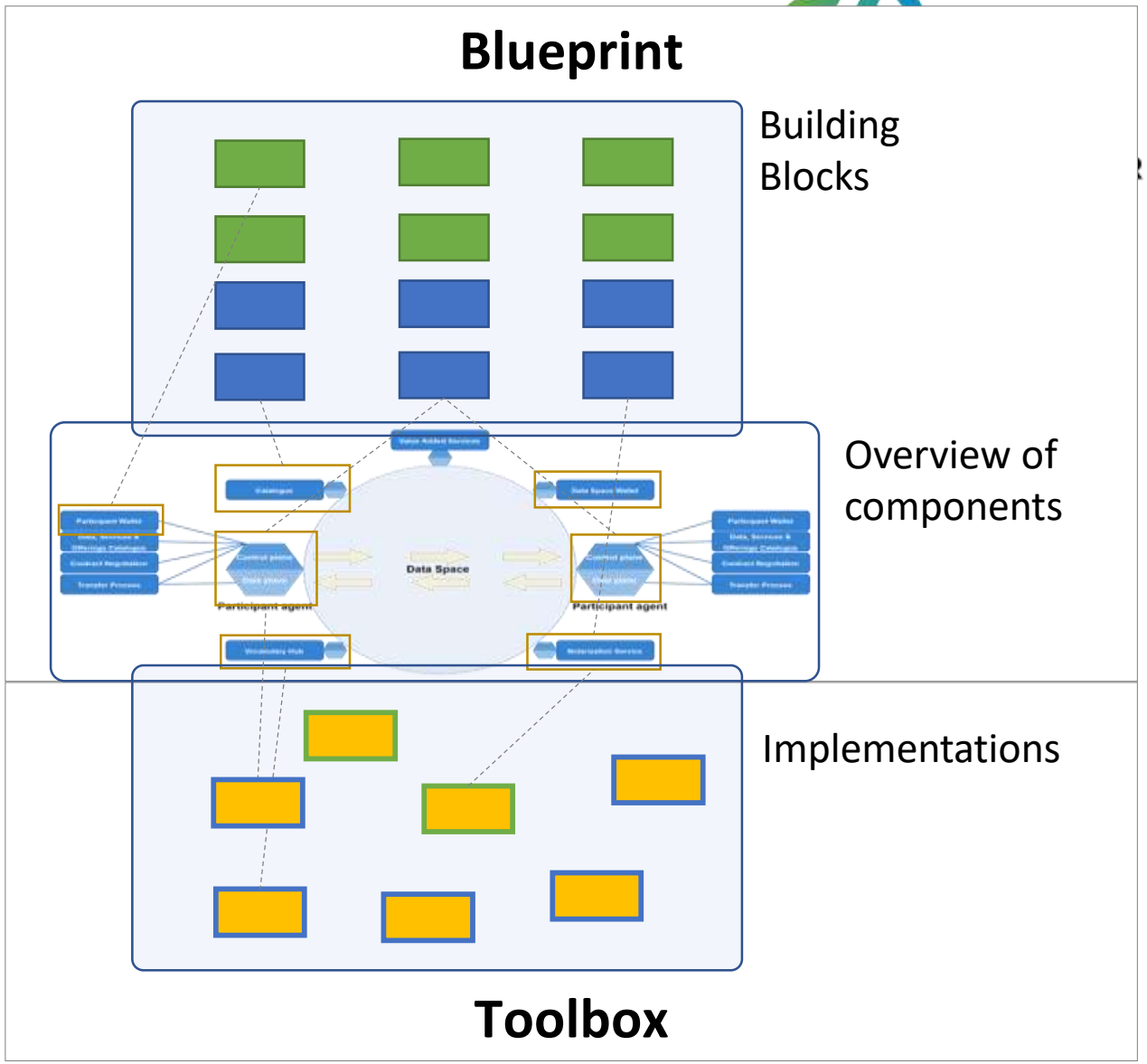
Relationship between DSSC Blueprint and Toolbox

- Building blocks specify the dataspace functionalities and requirements
- Components specify how these materialize in the dataspace
- **Toolbox is a catalogue of implementations (tools) of these components**



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Why we need a toolbox
Dataspace participant perspective

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- To setup and participate in dataspaces you need solutions that are ready to use.
- There are many dataspace solutions developed; we can't see the forest for the trees.
- Any solution can claim to adhere to the DSSC guidance. How are you selecting a future proof option?

That is why the DSSC will provide and maintain a **curated catalogue of implementations.**

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Why you want to be in there
Solution provider perspective

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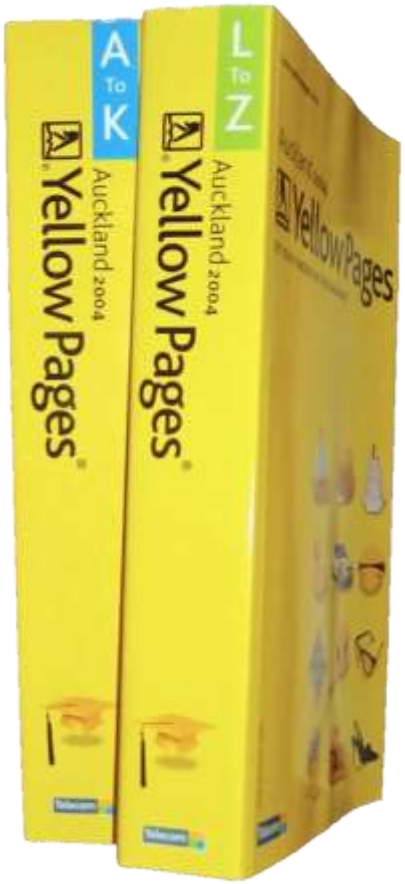
Like with yellow pages:

- Being listed in the Toolbox allows for improved findability by potential users
- Users can better position your solution because it is linked to shared understanding provided by the Blueprint



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Toolbox is a curated catalogue of implementations

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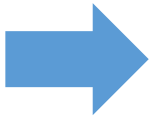
- The toolbox is open for any implementation that adheres to the DSSC Blueprint



This requires validation

- It covers both technical and business & organisational support tools
- Includes both software and non-software tools
  - Example of non-software are templates, frameworks, a canvas, ..
- Includes both open source and proprietary implementations
- Anyone can submit a tool; the maintainer, an open source initiative or an individual enthusiast.

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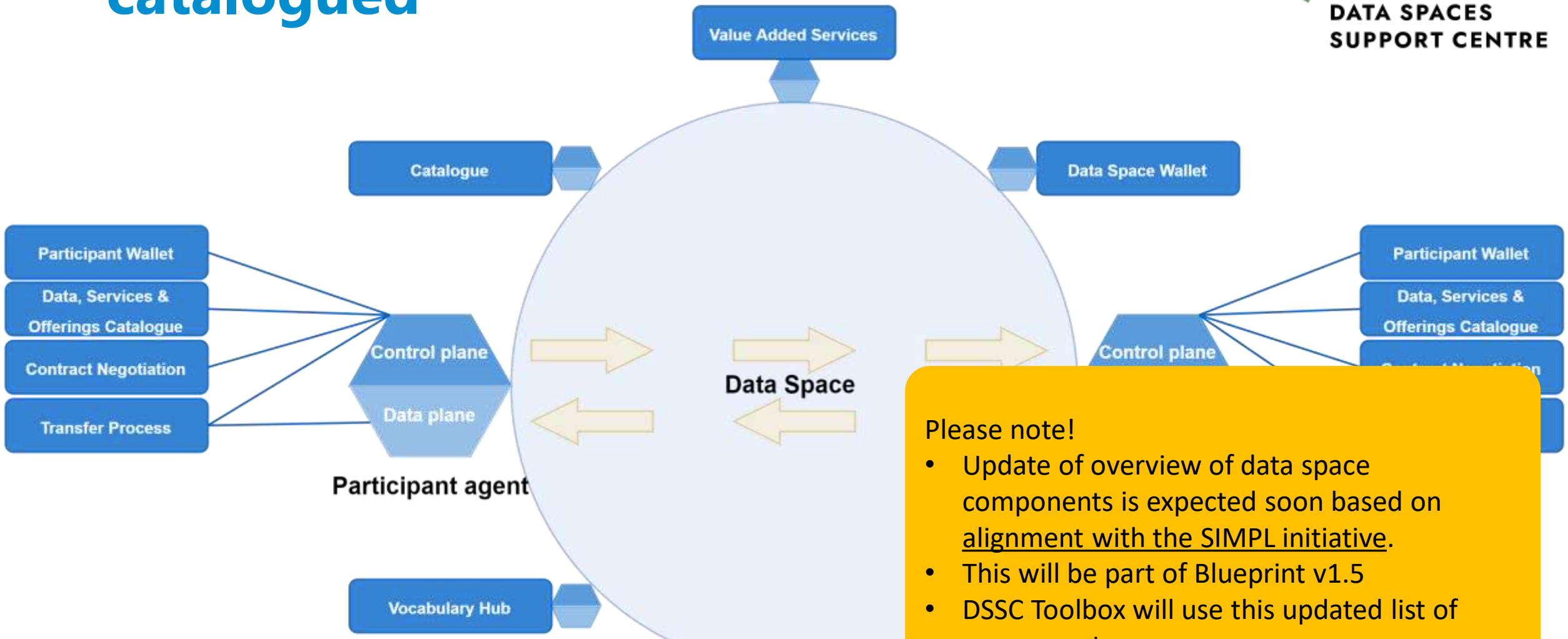
Phase 1: Technical components that are catalogued



Please note!

- Update of overview of data space components is expected soon based on alignment with the SIMPL initiative.
- This will be part of Blueprint v1.5
- DSSC Toolbox will use this updated list of components

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Toolbox v1 release

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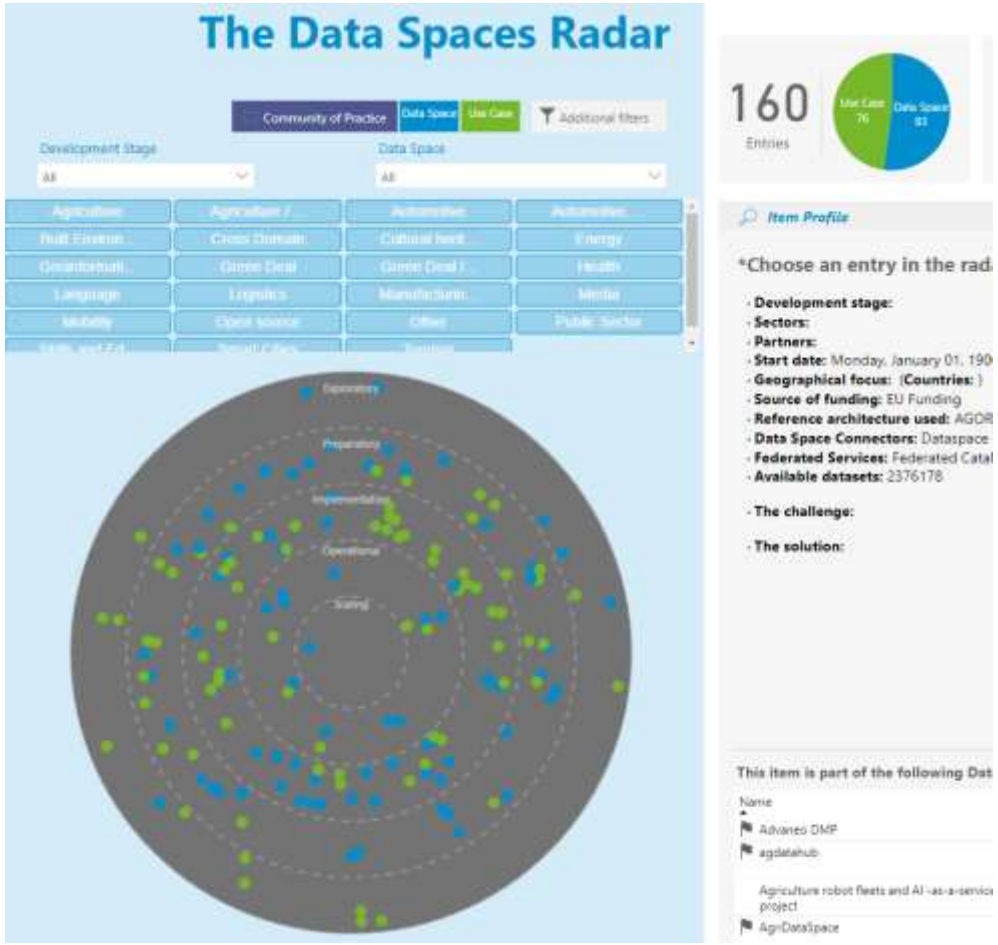
- Planned for autumn 2024
- Idea is to extend the Data Space Radar
  - Adding implementations (next to the current list of data space initiatives)
  - Allowing to filter, search and find the tools you need
  - Potentially linking them to the data space initiatives in which they are used



Submit now to be part of first release of the Toolbox

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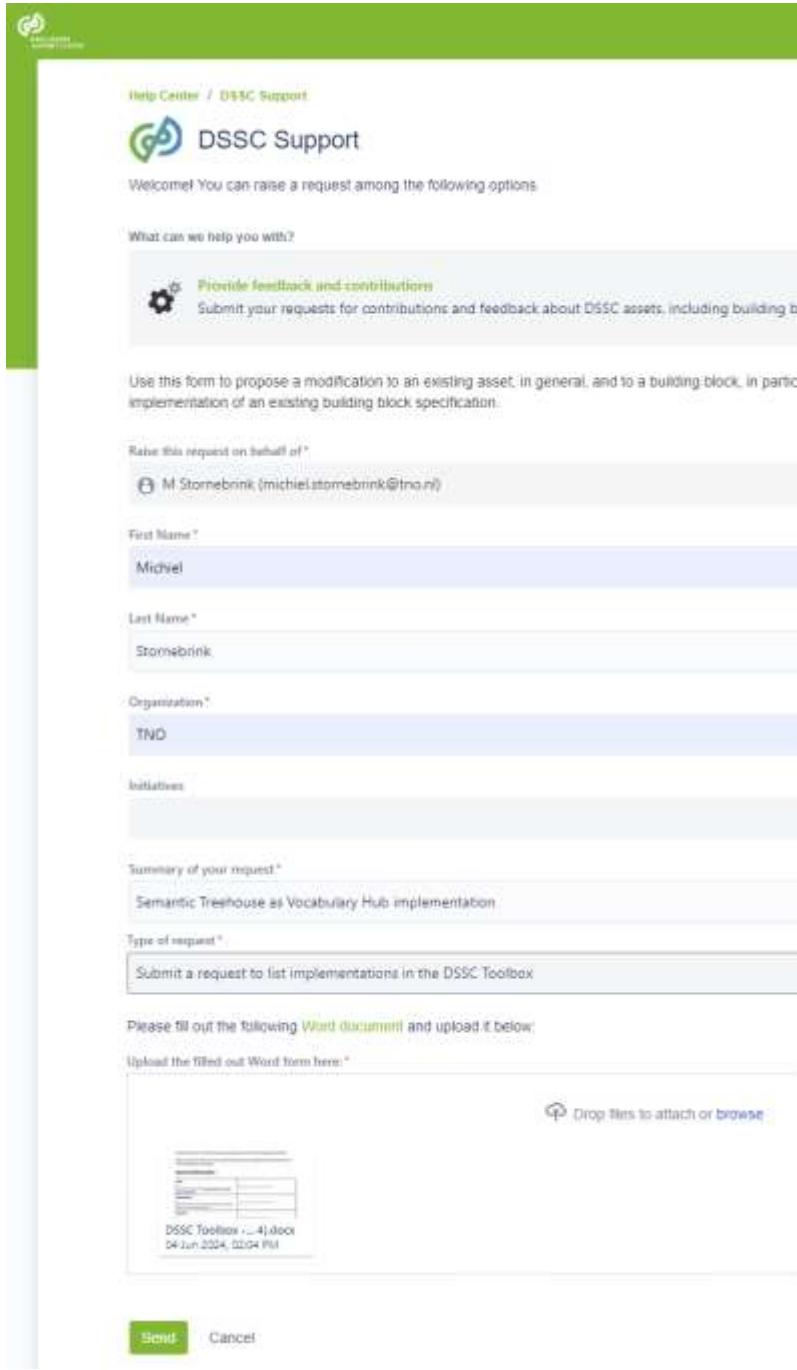
How to get implementations listed in the DSSC Toolbox

1. Download the request form
   - See this page: link

2. Submit a request via the DSSC website
   - DSSC Support form
   - Fill in the submitter details
   - Type of request: *Submit a request to list implementations in the DSSC Toolbox*
   - Upload the form

3. You will be contacted with details to take a Toolbox implementation **self assessment** based on the validation scheme.

4. If all goes well, the tool will be listed in the first release of the DSSC Toolbox



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Validation Scheme

Sonia Jiménez

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How are implementations listed in the Toolbox?

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Validation scheme for implementations

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- DSSC will deliver a validation and approval framework for technical and business & organizational implementations.
- Carried out through automated self-assessments.
- Alignment with building block specifications in the Blueprint

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Self-assessment content

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Implementation metadata

- Functionality (relation to BBs)
- Relation to System Architecture
- Documentation of implementation
- Market ready? (TRL)
- Reference applications in operations
- Dependencies
- ….

Implementation compliance to Blueprint

- Specific questions about implementation

Implementations that successfully complete the self-assessment will be listed in the Toolbox

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Which are the benefits of the Validation Scheme?

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Benefits of validation scheme

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Solution providers

- Assess technical components against blueprint specifications.
- Listed in the Toolbox.

Data spaces authorities

- Assess alignment of Data Space to organizational and business building blocks.

Data spaces participants

- Find validated implementations in Toolbox

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Validation process

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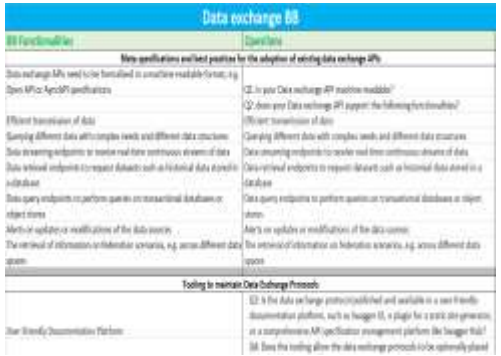
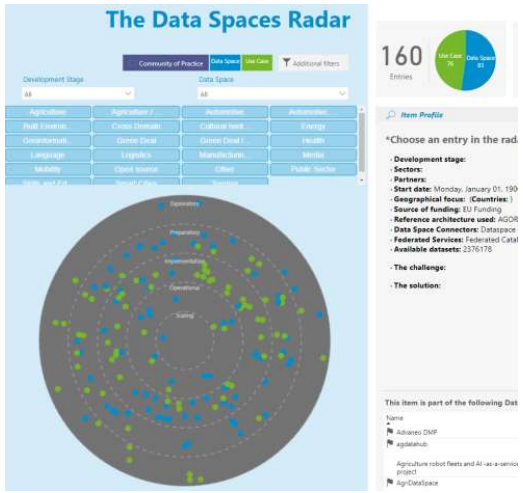
Applicant

DSSC

Preparation → Validation & Submission → Publication → Maintenance





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Thank you!

Any questions?

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Open data and data spaces

Elena Simperl
@esimperl

Data Spaces Support Centre, June 2024

KING'S College LONDON

open data institute

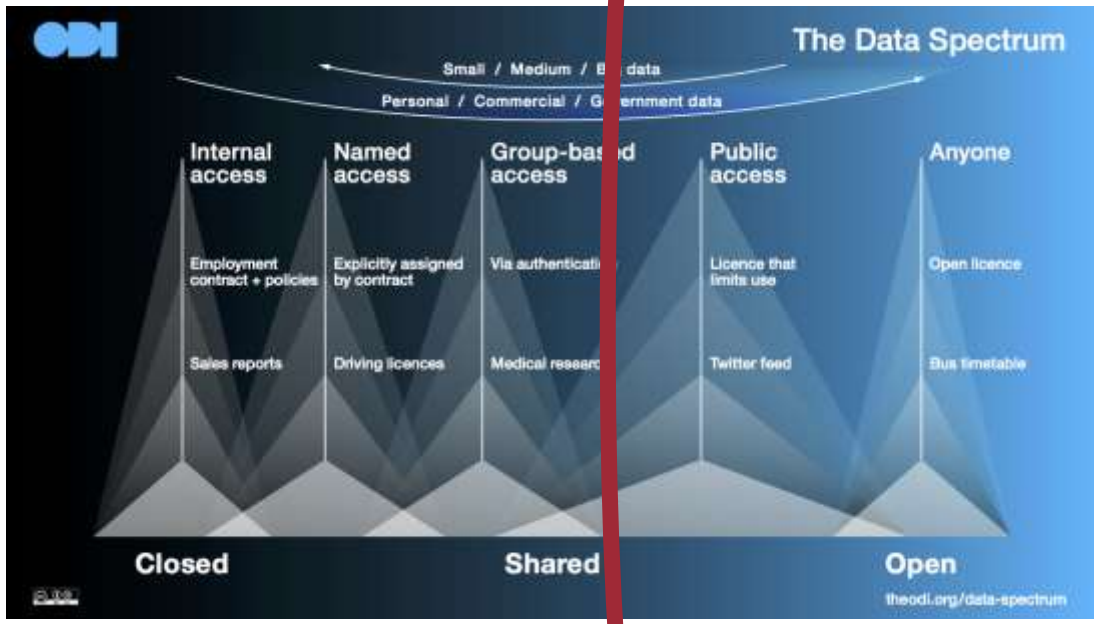
Open data

Data that anyone can access, use and share

No limitations on how the data will be used

Not the same as data in the public domain

Free to use does not have to mean free to access

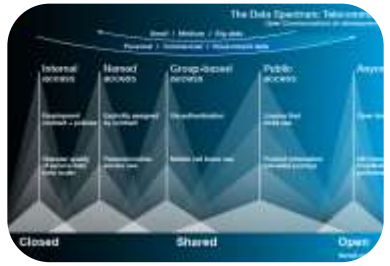


45M datasets indexed by Google Dataset Search, not just open science and government

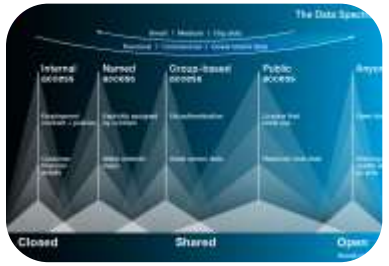
Agriculture

Energy

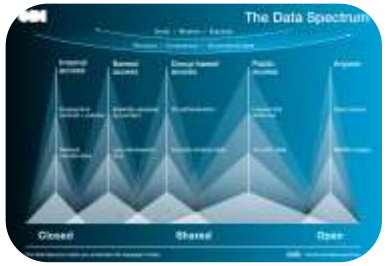
Finance



Telecoms

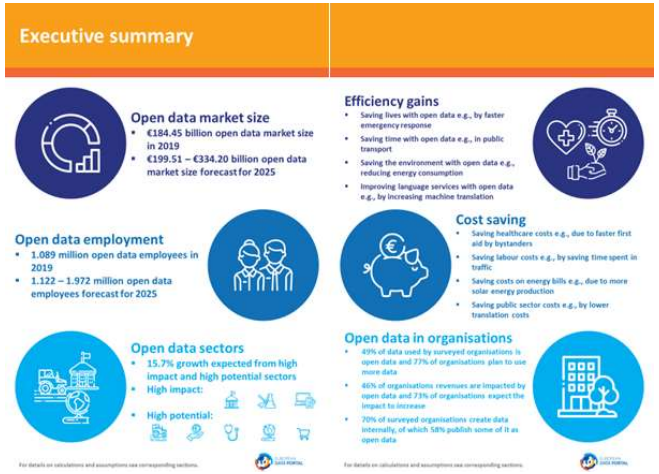


Water

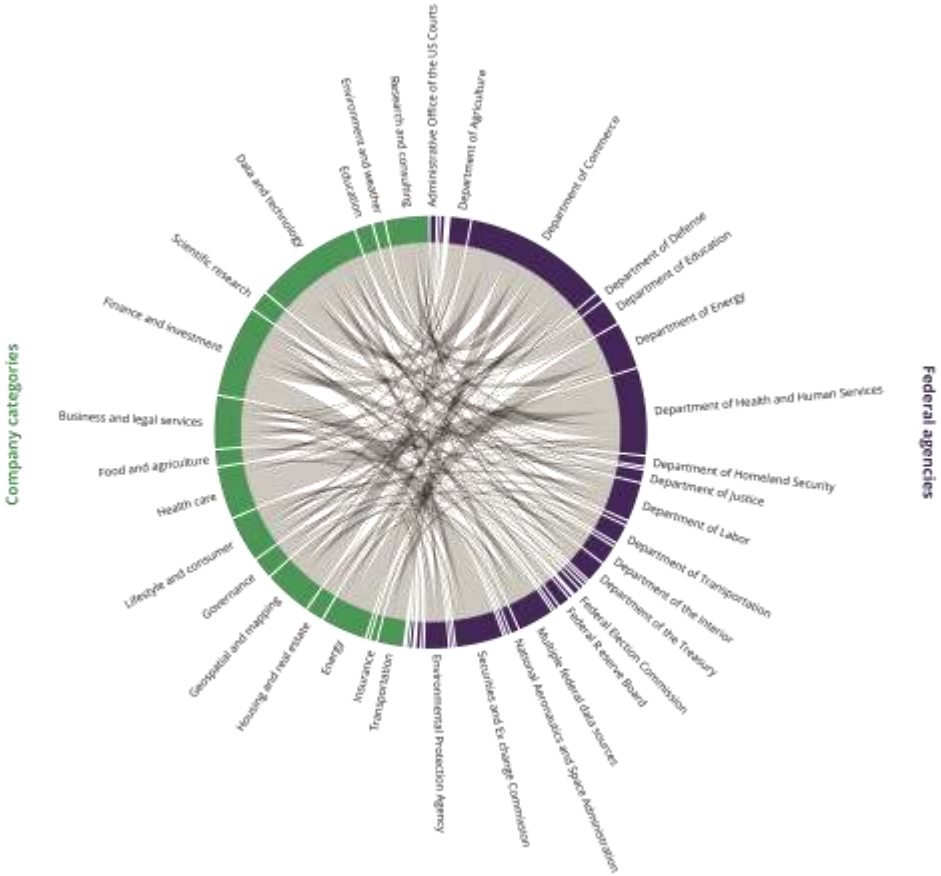


Wildlife trade

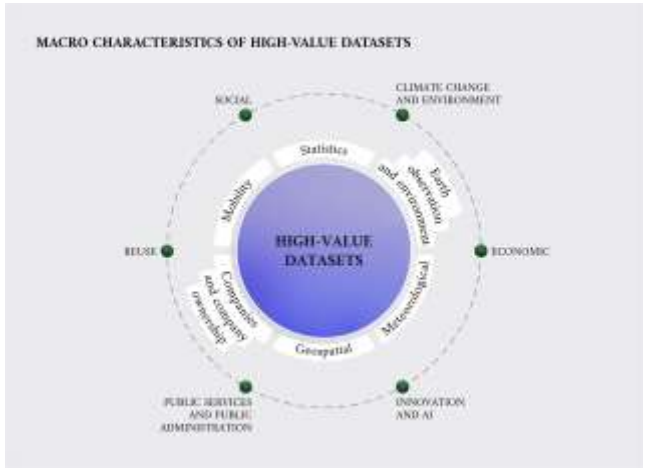
Substantial economic and social value



Source: data.europa.eu, 2020

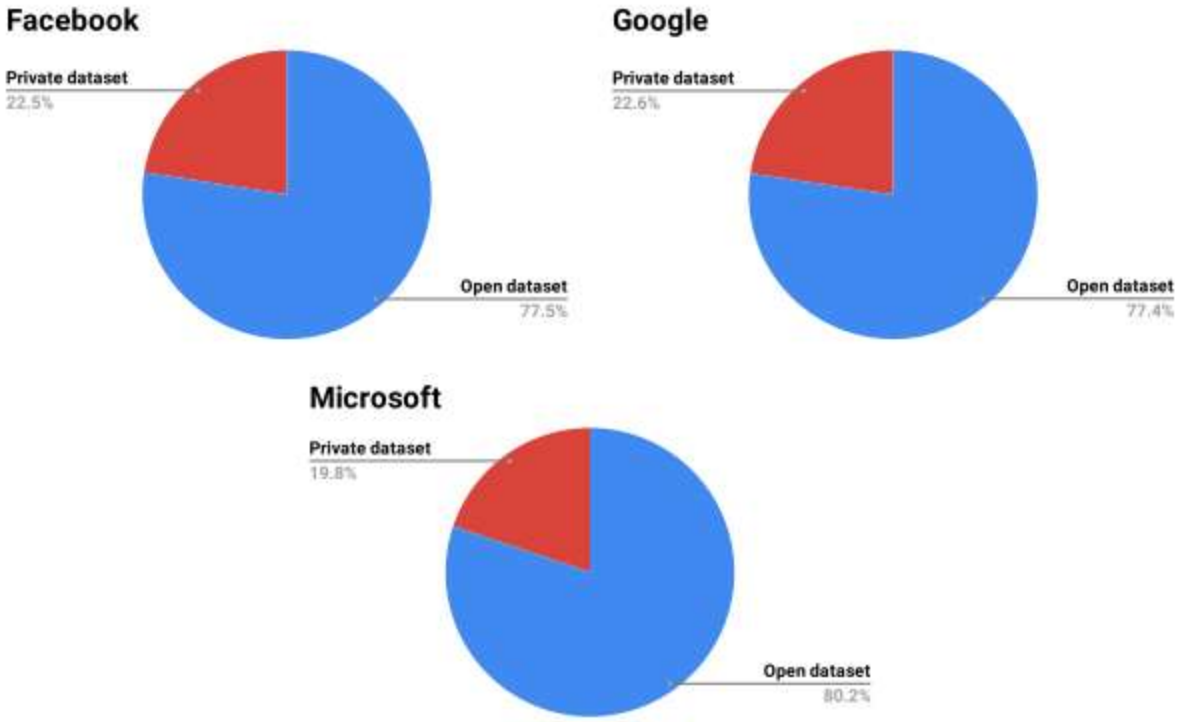


Source: World Development Report, 2021

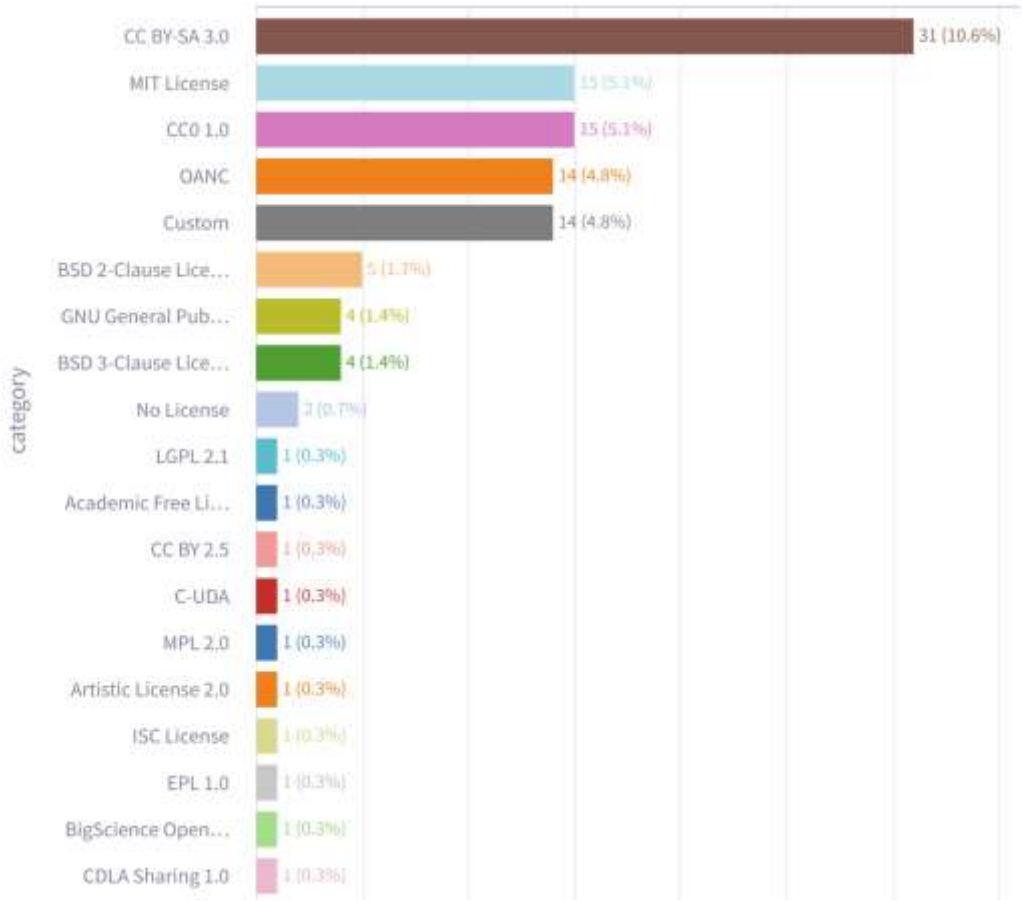


Source: data.europa.eu, 2022

Modern AI runs on open datasets



Source: MLCommons, 2023



Source: Data Provenance Explorer, 2024

User-centric data provisioning

(Source: Walker & Simperl, 2017)

The ten guidelines

- Organise for use of the datasets - rather than simply for publication
- Promote use through data storytelling and community building, borrowing from open-source communities and other peer-production systems
- Invest in discoverability best practices, borrowing from e-commerce and web search
- Publish good quality metadata - to enhance reuse
- Adopt standards to ensure interoperability
- Co-locate tools so that a wider range of users can be engaged with
- Link datasets to enhance value
- Be accessible by offering options for from APIs to CSV downloads
- Co-locate documentation - users should not need to be domain experts to understand the data;
- Be measurable - as a way to assess how well they are meeting users' needs.

Operationalising the guidance

- Literature review to develop 5* schemes to operationalise indicators.
- Application of the schemes on 10 open data portals at different maturity level.

(Walker & Simperl, 2017)

Example: Organise for use

- Each dataset is accompanied by a comprehensive descriptive record (going beyond a collection of structured metadata)
- An extract of the data can be previewed (for sense making)
- The portal provides recommendations for related datasets
- The portal enables users to review/rate the datasets
- Keywords from datasets are linked to other published datasets

Methods

Data Ecosystem Mapping

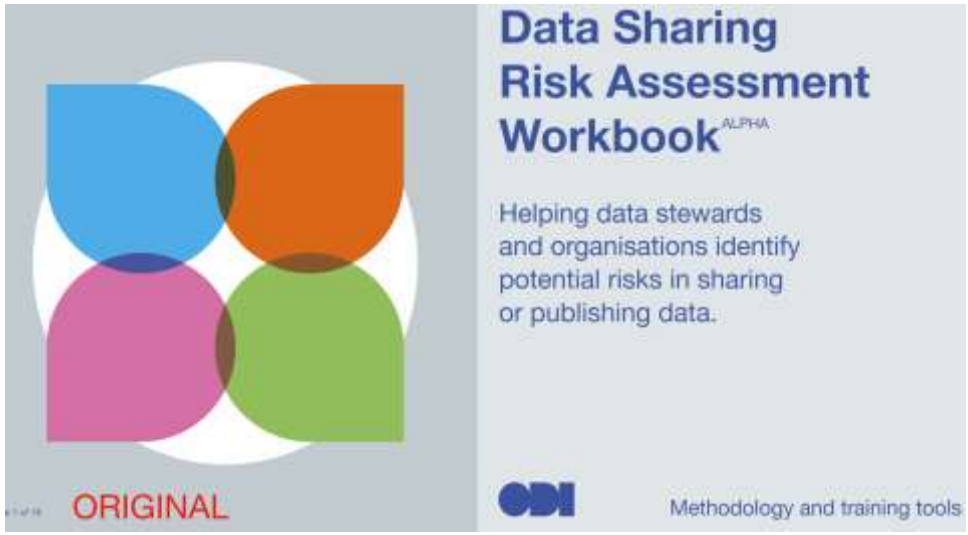
1. Cartographier les acteurs

2. Cartographier les échanges de valeurs « formels »

3. Cartographier les échanges de valeurs « douces »

4. Trouver des opportunités

Data Ethics Canvas



Data Sharing Risk Assessment Workbook ALPHA

Helping data stewards and organisations identify potential risks in sharing or publishing data.

ORIGINAL

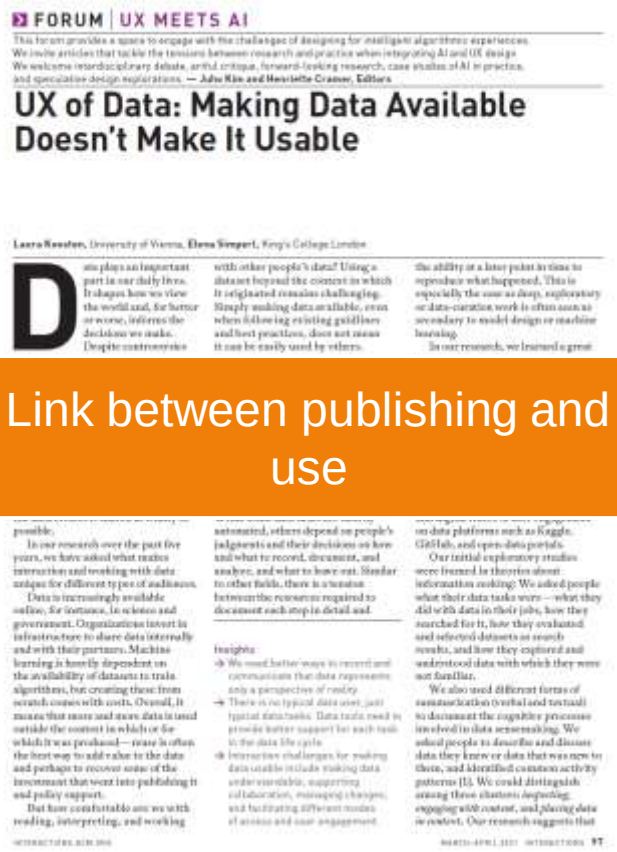
Methodology and training tools

Insights - publishing

Smart Rural: The Open Data Gap

Abstract

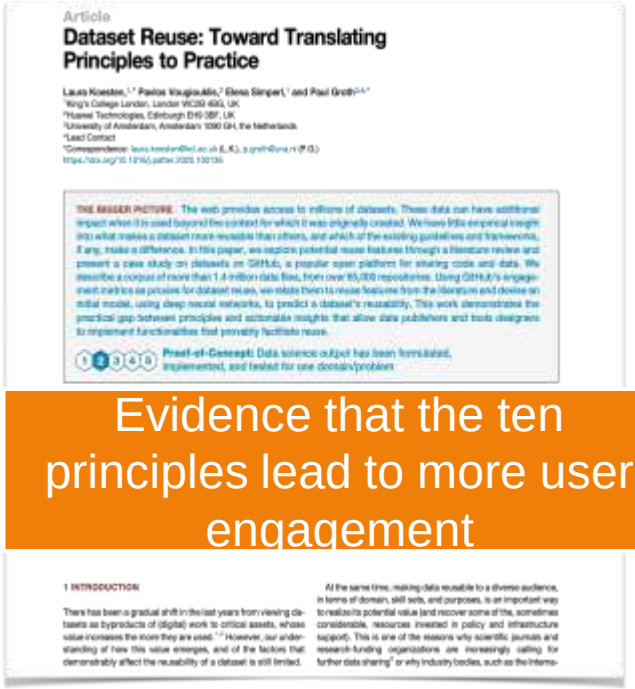
Missing datasets



FORUM | UX MEETS AI

UX of Data: Making Data Available Doesn't Make It Usable

Link between publishing and use



Article

Dataset Reuse: Toward Translating Principles to Practice

Evidence that the ten principles lead to more user engagement

Insights – use ADD summaries paper, ADD gen AI paper

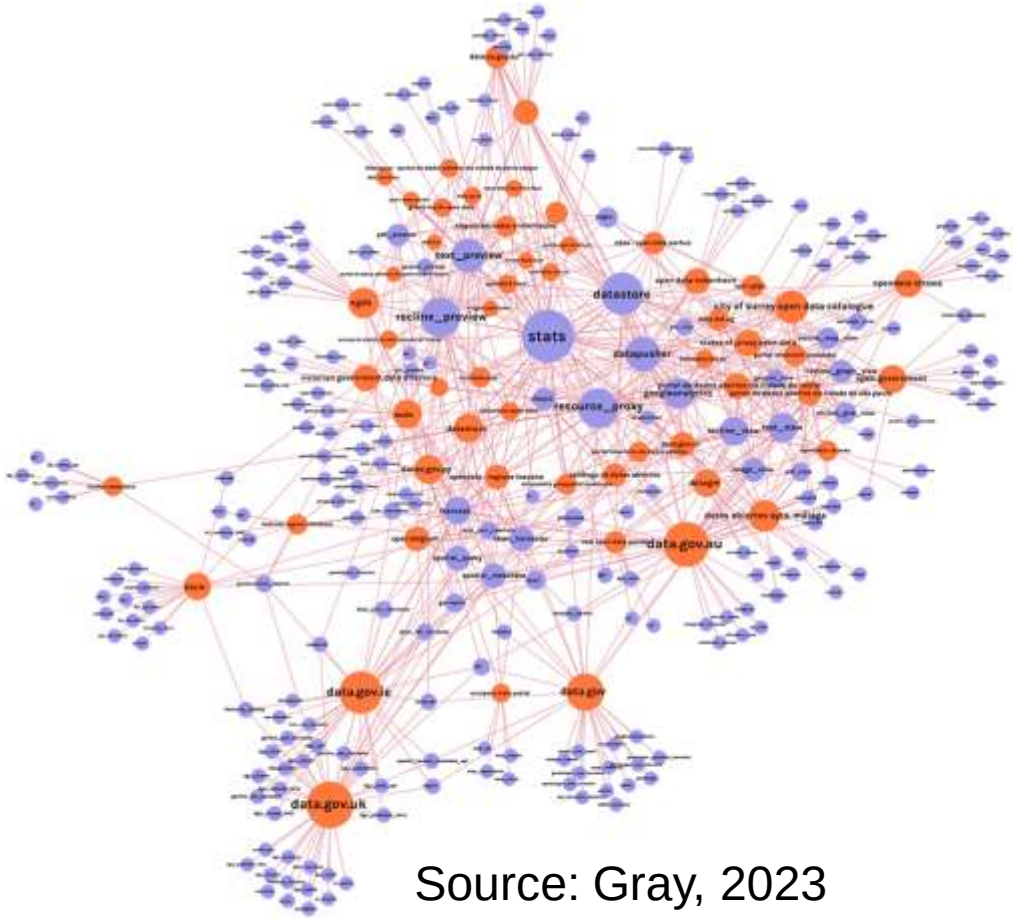
Characterising Dataset Search – an Analysis of Search Logs and Data Requests

A comparison of dataset search behaviour of internal versus search engine referred sessions

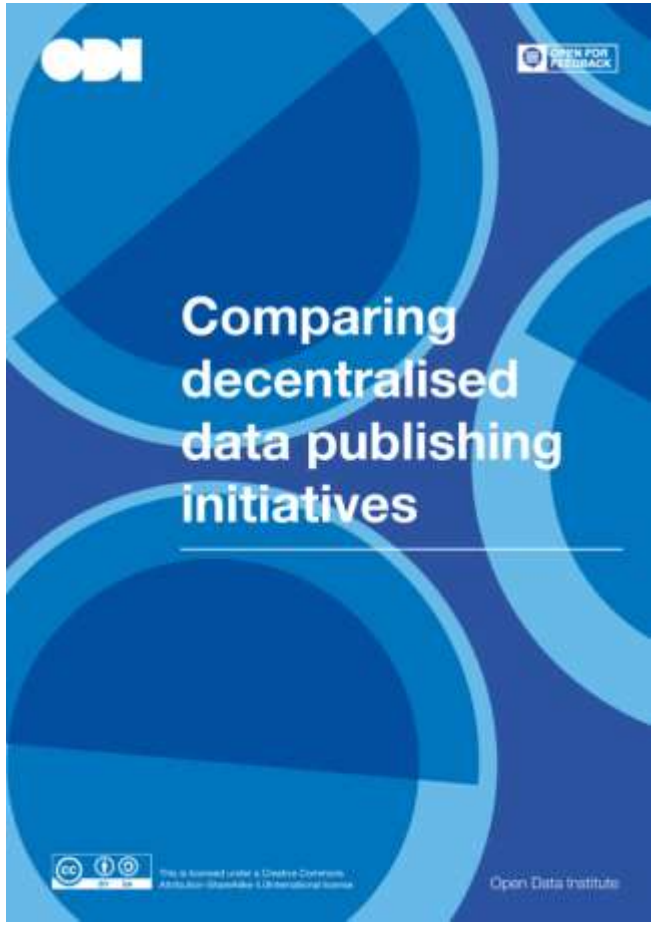
International Journal of Human - Computer Studies

Talking datasets – Understanding data sensemaking behaviours

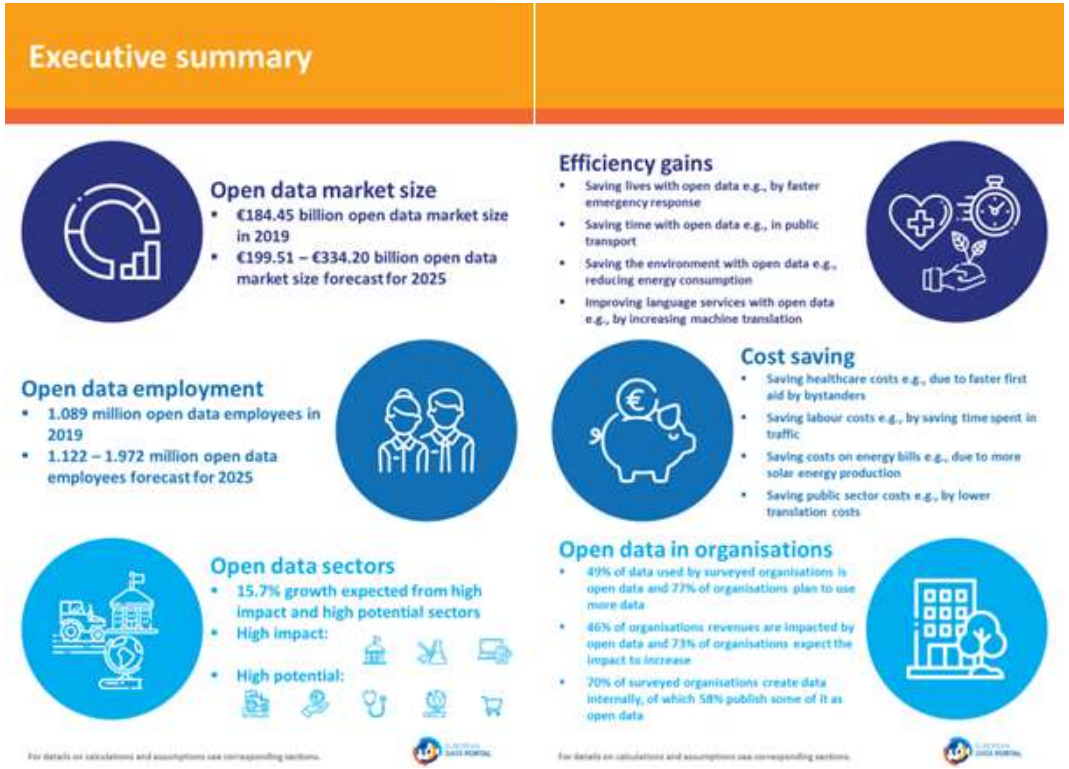
Decentralised open-data publishing



Source: Gray, 2023



Assessing use and impact



Source: data.europa.eu, 2020

Open data in data spaces

- 15+ years body of data, methods, standards, insights, best practices, available for everyone to use.
- Similar goals, often open data publishing starts by sharing data internally or with trusted partners.
- Common challenges e.g. discoverability, UX, data and metadata assurance, privacy, integration, assessing use/impact.
- Use cases require fusing shared & open data e.g. official statistics, maps, company/land registries etc.

What's needed

- **Knowledge and technology transfer** – don't reinvent the wheel, especially when public funds are at play.
- **Harmonisation with key open datasets** – e.g. high-value datasets to reduce costs of integration and level the playing field for smaller data spaces' data users.
- **Knowledge exchange** – organisations are asking for evidence on added value, impact, risks for multiple data-spectrum options.
  - We can create that body of knowledge together.
  - It may also lead to **open data contributions** by data spaces publishers.

Thank you

Elena Simperl

@esimperl

Publications Office
of the European Union

WHAT CAN OPEN DATA (DATA.EUROPA.EU) DO FOR COMMON EUROPEAN DATA SPACES?

DSSC Insight Series - The free flow of data from source to fruition – 6 June 2024

Publications Office of the European Union – European Commission

Marcin Baryń

data.europa.eu

The official portal for European data

Our services in a nutshell

Data

Providing access to free public data resources across Europe via a single platform (the portal).

Academy

Supporting the EU institutions, EU Member States and European countries to publish metadata of their open data in a harmonised manner.

Community

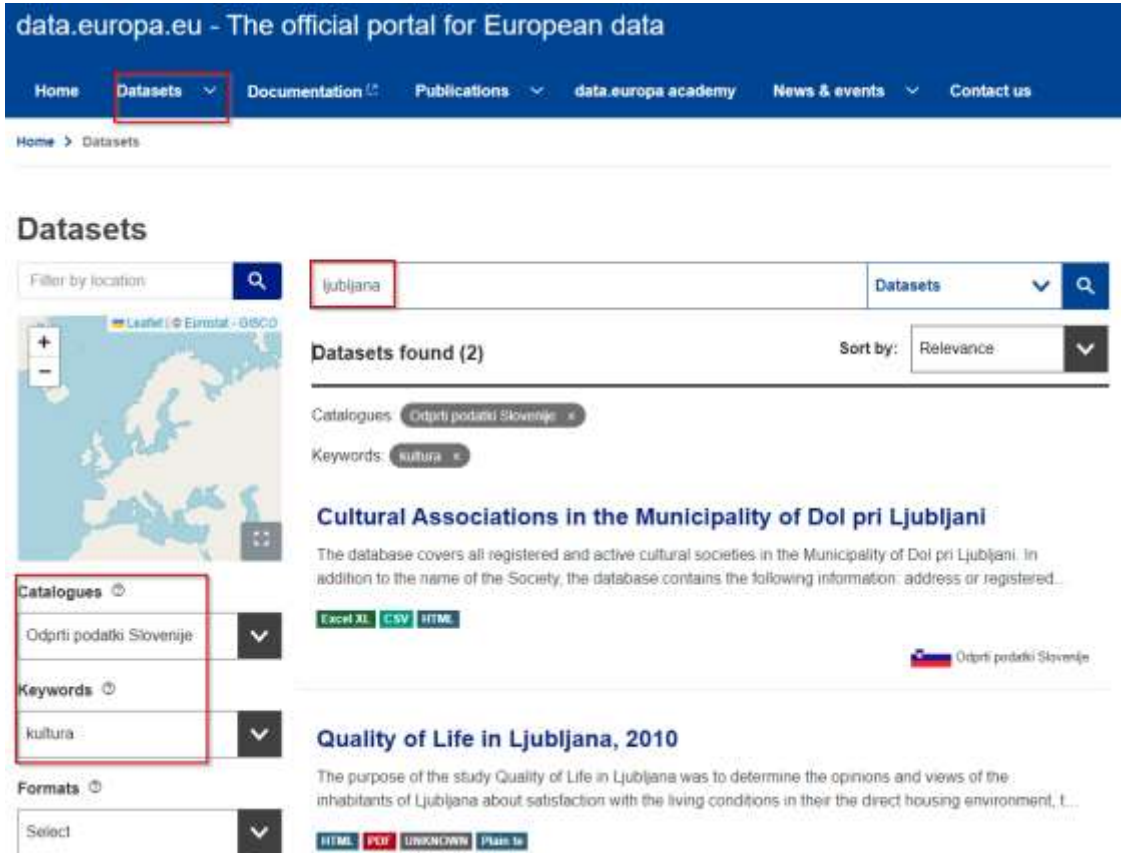
Organising open data competitions and conferences; communicating via social media and newsletters.

Publications

Assessing open data maturity in Europe; providing reports, studies and training via the academy.

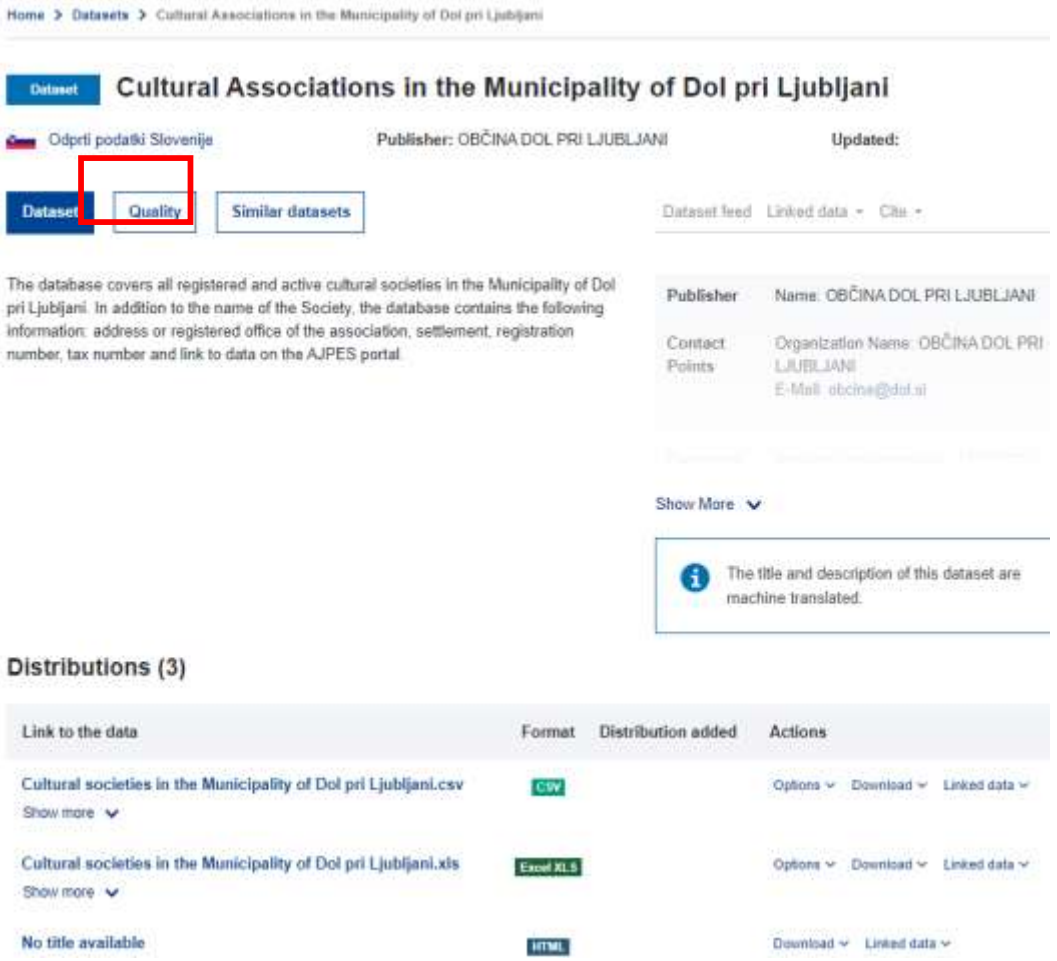
data.europa.eu as data hub

- **More than 1.7 million datasets**, grouped in 185 data catalogues
- **Navigate or search to get to the data** or catalogue you are looking for
- Benefit from **many filters**
- Query the data via **SPARQL endpoint**
- Access the data via an **API**



data.europa.eu as data hub

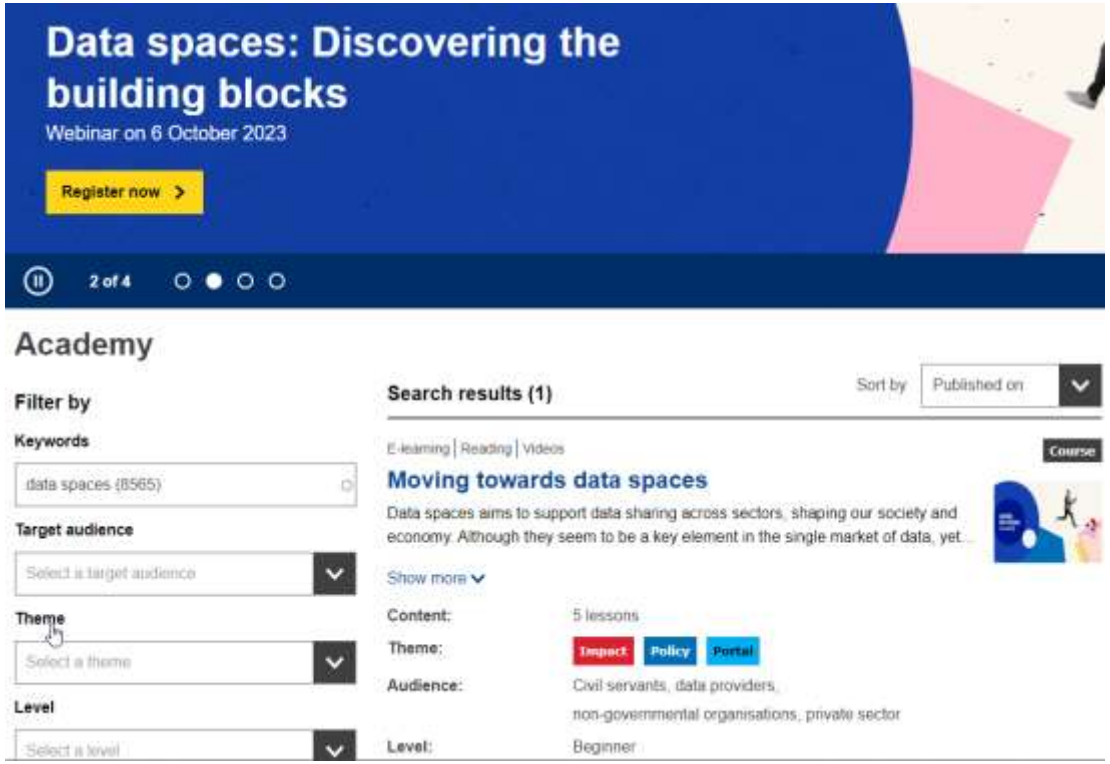
- **Metadata translations** in all EU languages, machine translations for other text
- **Download and transform CSV files** automatically in many different formats
- Get **quick visualisations** for geo datasets
- Get **feedback for the metadata quality** on how to improve it
- **Embed** your datasets into other websites
- **Export citation formats** for your datasets properly



Data.europa academy

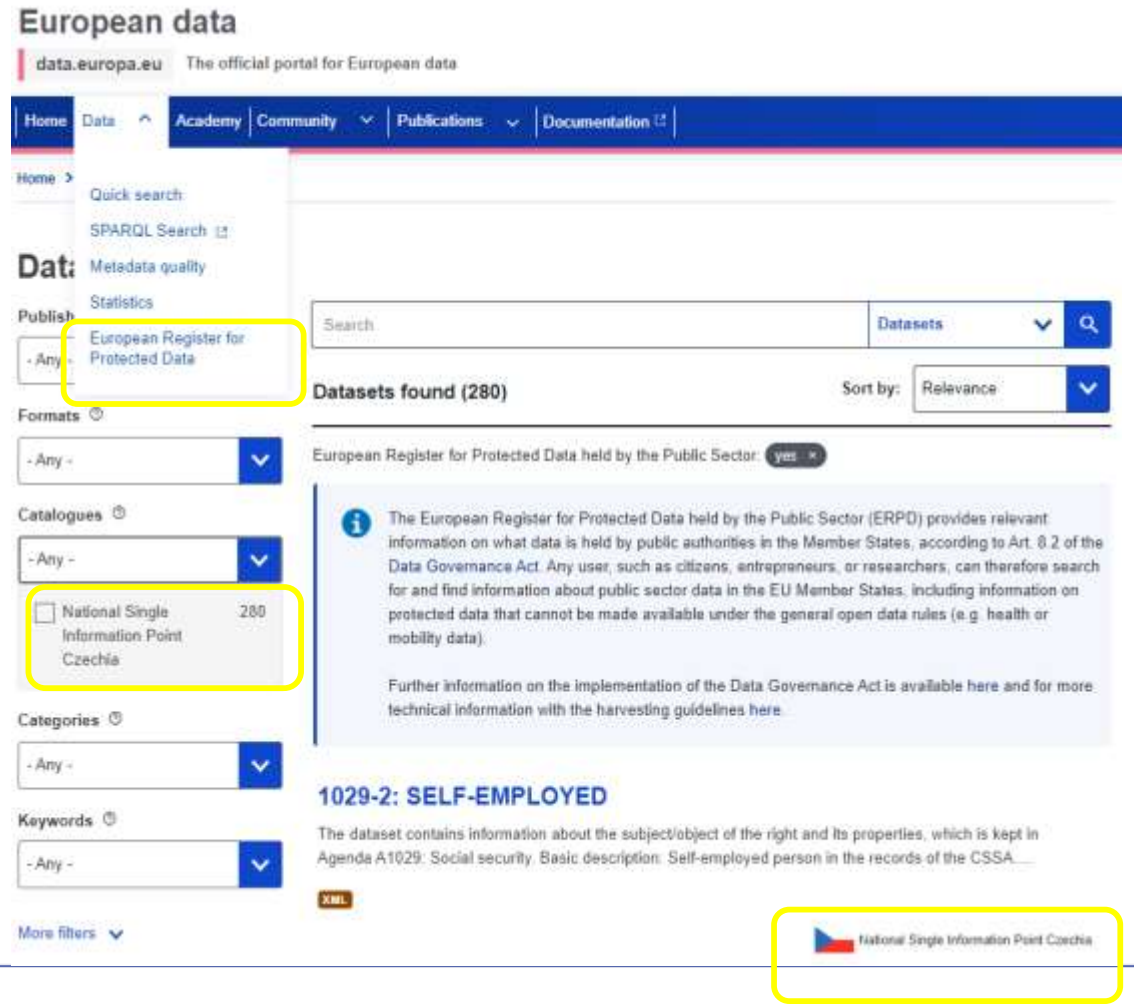
your open data knowledge centre

- **Aim:** improve **data literacy**
- Content:
  - Grouped in 11 thematic courses (legal, technical, business, visualisation, …)
  - Articles, videos, slide shows, reports, ...
  - Designed according to **users' needs**
- Constantly **updated and improved**
- Special series on **data spaces**



European Register for Protected Data held by the public sector

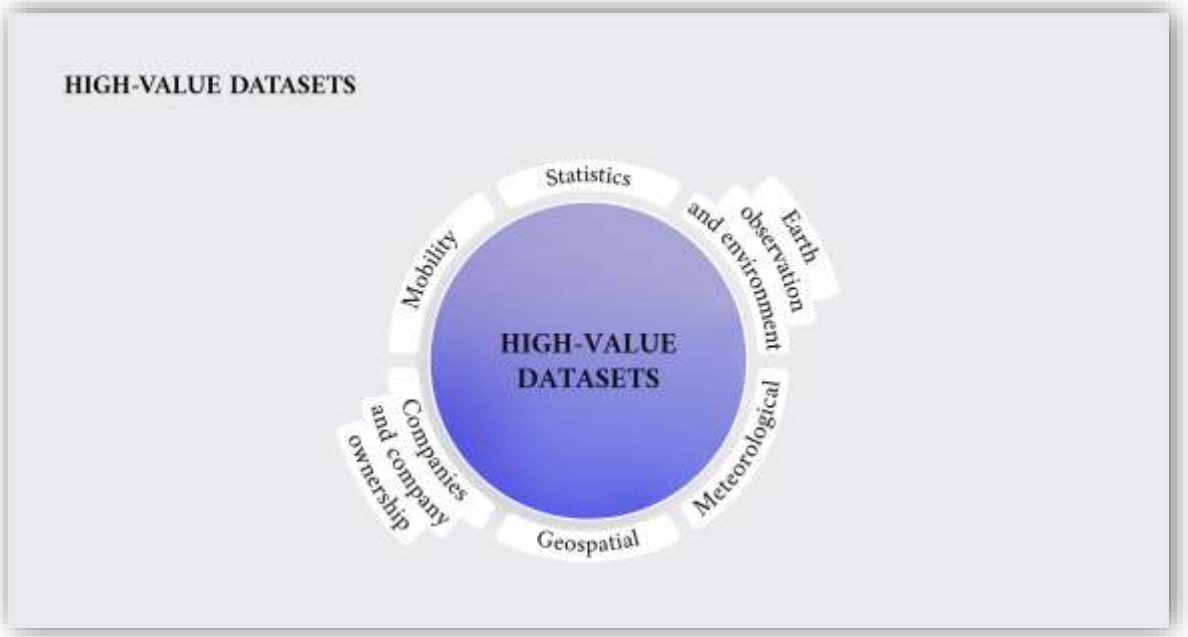
- In the context of the Data Governance Act, the EU was asked to set up a searchable electronic register of public sector protected data
- This register, the European Register for Protected Data held by the Public Sector (ERPD) is available on data.europa.eu since 24 September 2023
- Search the national catalogues of protected data: the NSIPs (National single information points)
- State of play: Czech and Dutch catalogues are online; Ireland NSIP catalogue is in progress



What are high-value datasets?

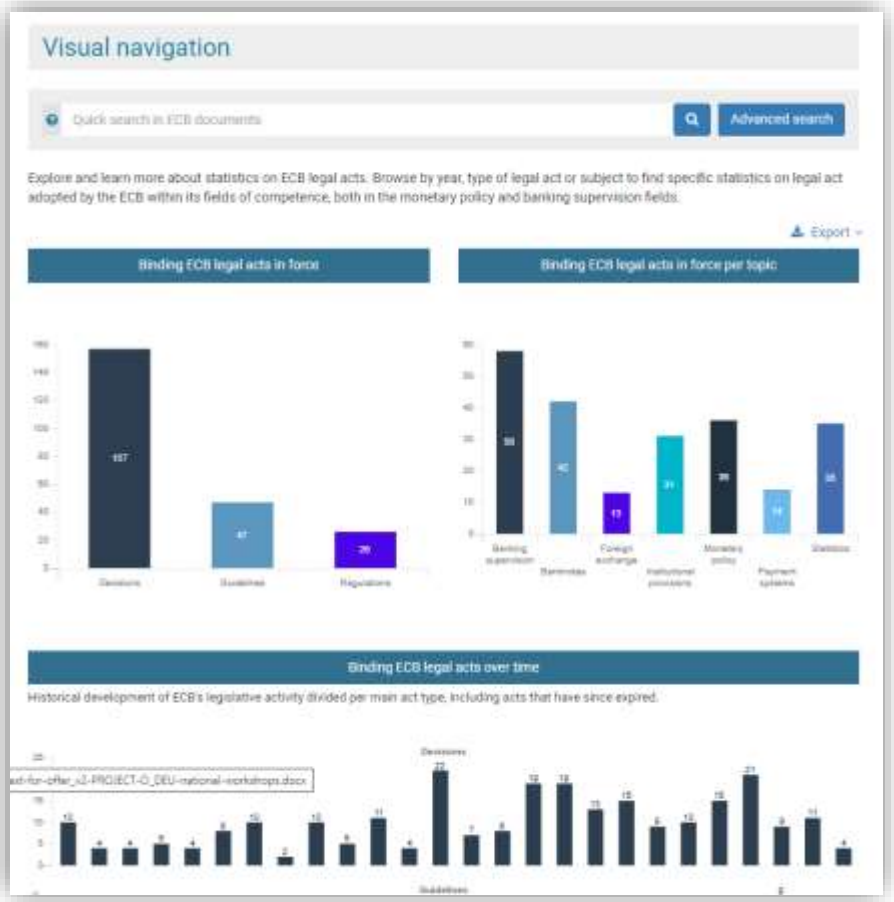
Commission Implementing Regulation adopted on the 21 December 2022 and to be implemented by June 2024.

- Identified 6 thematic categories of datasets that bring benefits for society, the environment and the economy.
- Public sector bodies should make all these datasets **available** to the public in machine-readable format with open license.
- Digital Europe Programme (DEP) funded project to adapt metadata standard to describe High-value datasets on data.europa.eu.



Implementation of High Value Datasets on data.europa.eu

- Extra tab on data.europa.eu for access to all high-value datasets.
- Filters by category, country, date of publication and many more.
- A visual dashboard will be added to increase the visibility of high-value datasets per Member State and based on the EUR-Lex visual navigation.



Features on data.europa.eu which can be reused by Common European Data Spaces

- Data visualisation previews
- Data harvesting protocols (importing and transforming)
- Data Providers Interface
- Metadata quality assessment tool
- Data citation feature
- Data embedding feature

data.europa.eu
The official portal for European data

Thank you

Stay in touch! Find us on social media or contact info@data.europa.eu.

Q&A

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