

DSSC Insight Series The free flow of data from source to fruition

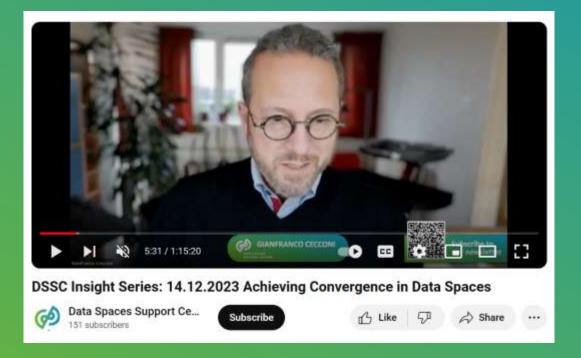
6 June 2024 | 16:00 to 17:30 CEST | online





- 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!)







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!

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



Agenda





Toolbox

Michiel Stornebrink



Validation scheme

Sonia Jiménez





Toolbox

Michiel Stornebrink



Example of technical tools for the DSSC

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



Link to reports

DATA SPACES

SUPPORT CENTRE

Example of business and organisational tools for the DSSC Toolbox

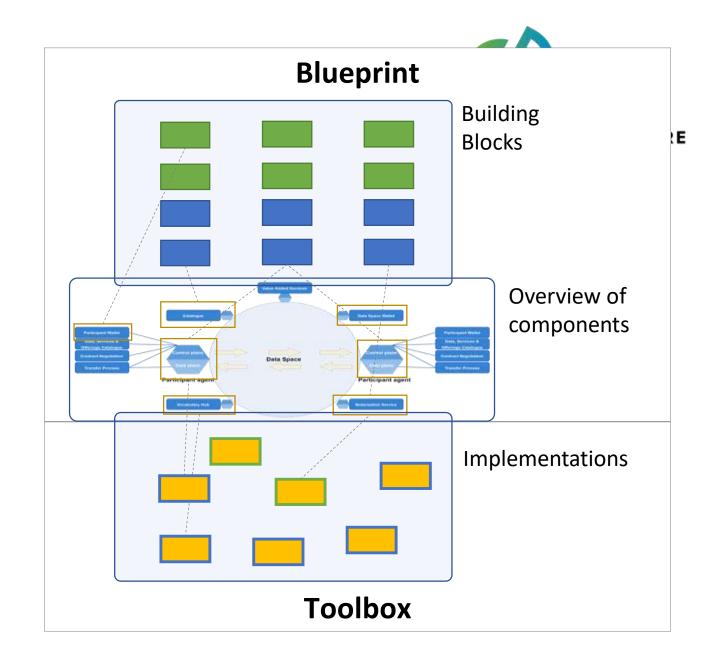


Implementation	Component*	Related building block(s)
 Sitra rulebook template #9 'Dataset Terms of Use' 	 Data Product Contract template 	 Contractual Framework



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





Why we need a toolbox Dataspace participant perspective



- 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.

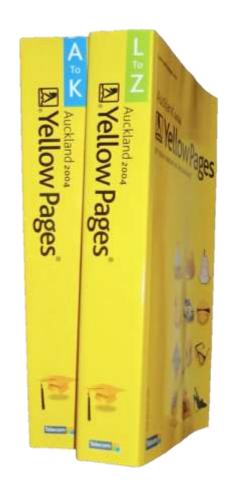


Why you want to be in there Solution provider perspective



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



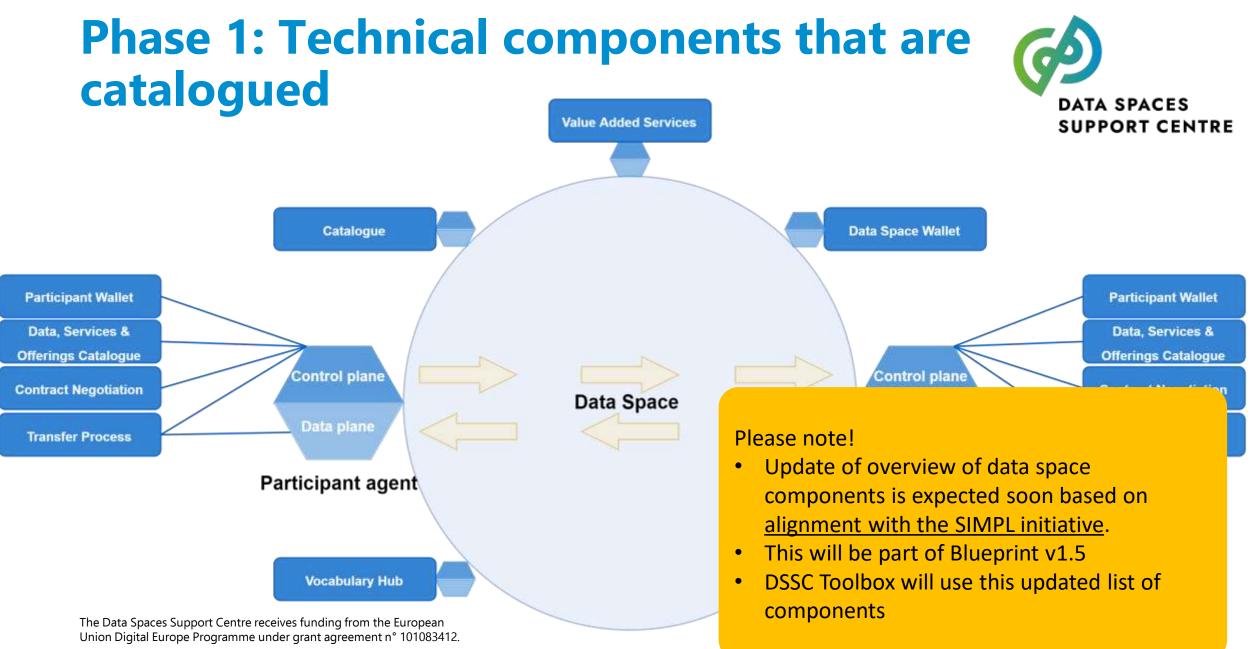


Toolbox is a curated catalogue of implementations



- 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 <u>and</u> non-software tools
 - Example of non-software are templates, frameworks, a canvas, ...
- Includes both open source <u>and</u> proprietary implementations
- Anyone can submit a tool; the maintainer, an open source initiative or an individual enthusiast.





Funded by the European Union

Toolbox v1 release

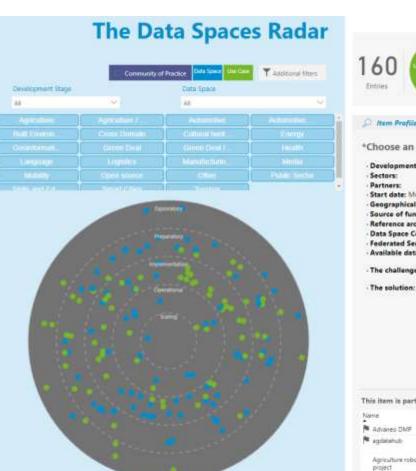


- Planned for autumn 2024
- Idea is to extend the Data Space Radar
 - Adding implementations (next to the current list of data space initiatives)
 - Allowing to filter, search and find the tools you need
 - Potentially linking them to the data space initiatives in which they are used



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

ne European Union







Geographical focus: (Countries: Source of funding: EU Funding Reference architecture used: AGOR **Data Space Connectors:** Dataspace Foderated Services: Federated Catal Available datasets: 2376178

- The challenge:

The solution

Th	is item is part of the following Dat
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-	Advaneo DMP
-	agdatahub
	Agriculture robot fleats and Al -as-a-service project
100	AprOmatipace

How to get implementations listed in theownload the request form lbox

- See this page: <u>link</u>
- 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





How are implementations listed in the Toolbox?





Validation scheme for implementations



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



Self-assessment content



Implementation metadata

Implementation compliance to Blueprint

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

 Specific questions about implementation

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

. . . .



Which are the benefits of the Validation Scheme?





Benefits of validation scheme



Solution providers

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

The Data Sales por Grive receives funding from the European Union Digital Europe Programme under grant agreement n° 101083412.

Data spaces authorities

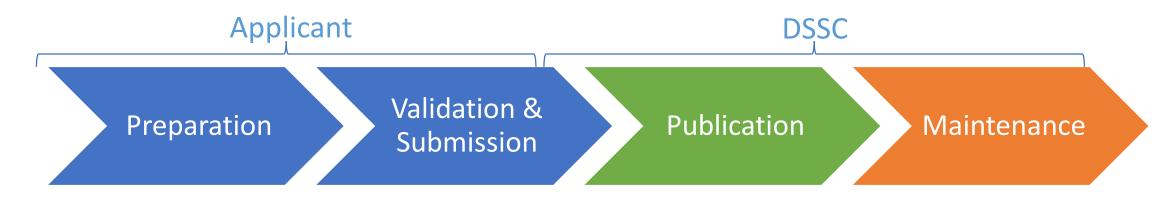
 Assess alignment of Data Space to organizational and business building blocks. Data spaces participants

 Find validated implementation s in Toolbox



Validation process

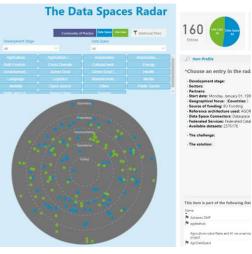




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Data exchange 55









Thank you!

Any questions?



Open data and data spaces

Elena Simperl @esimperl

Data Spaces Support Centre, June 2024



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



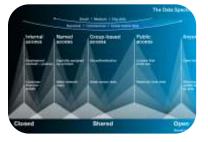
Energy



Finance







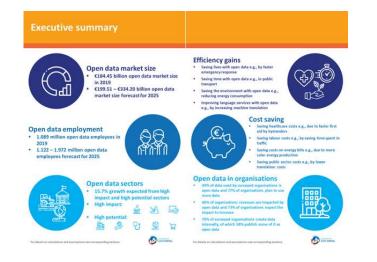
Water



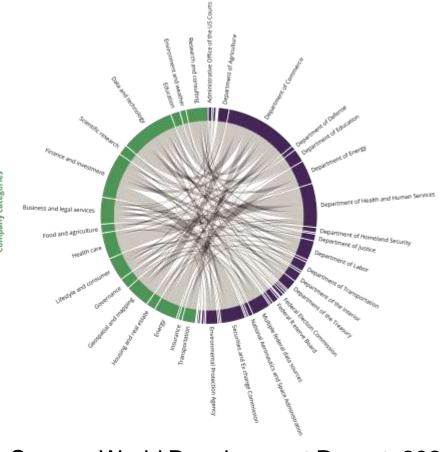
Wildlife trade

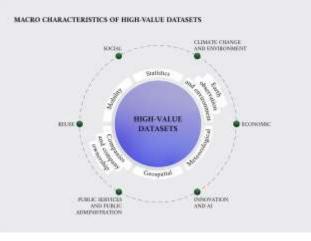


Substantial economic and social value



Source: data.europa.eu, 2020



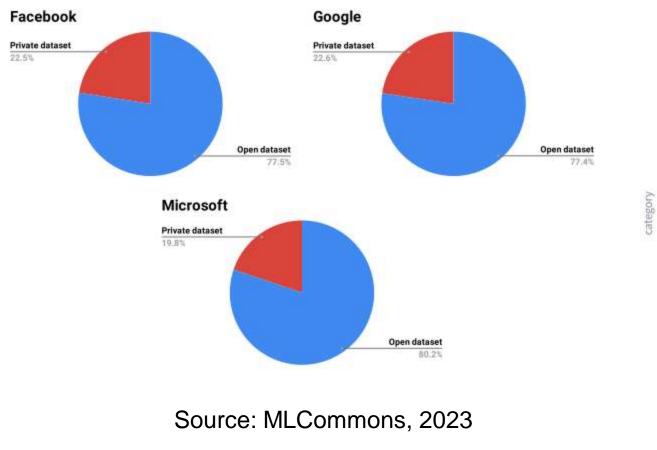


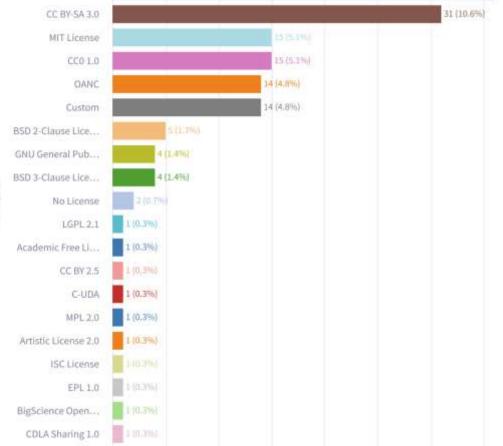
Source: data.europa.eu, 2022



Source: World Development Report, 2021

Modern Al runs on open datasets





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

ocumentation

- 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.

Publish metadata

Be accessible

Organise for use

Promote use

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.



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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

GDI

Data Ecosystem Mapping

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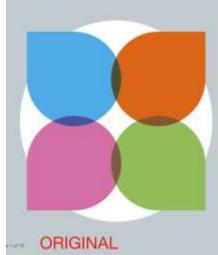
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Data Sharing Risk Assessment Workbook

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

Methodology and training tools



Insights - publishing

Smart Rural: The Open Data Gap

Johanna Walker1*, Gotion Theorem?, Elses Support' and Les Carri University of Southarpore, (Dep.) College (and/or * Johanne Walkardformer, at the

Abstract

The smart city paradigm has nodequesed a great deal of the me and production of open data for the benefit of policy mokets and citation. This paper possits that this further exhausts the excitant arban ratal devide. It investigates the untable key and use of rand open data along two parameters pertaining to must populations, and to key parts of the succisconsorp (againshuse, fideries and finestry). It exploses the sclauradap between key statistics of material / rand recommises and ratal open data; and the noe and assess of small open into where it is modable. It finds that although countries with more rank conductions are not processarily endars to these Open Data Maturaty journey, there is still a both of automationalization of ones data in each sense that

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Constant lite in stard localities. However, even in some

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Missing datasets

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E FORUM UX MEETS AI

This for our provides a space to suppose with the challenges of designing for intelligible algorithmic applications We include articles that tackin the turniant between research and practice when integrating AL and OC design. We welcome interdeciplinant details, article critique, forward-leaking research, case existing of AL in practice. and speculative design regionations. - July: Nie and Heartette Crasser, Editors

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

Lasra Reader, Dreversity of Varma, Elsen Strepert, Revo's College Limited



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principles lead to more user engagement

1 INTRODUCTION

There has been a gradual shift in the last years from viewing da- to realize its potential value (and recover some of the, sometimes tasets as byproducts of (digital) work to critical assets, whose considerable, resources invested in policy and infrastructure salar increases the more they are used." However, our understanding of how this value emerges, and of the factors that necessrit-funding organizations are increasingly calling for

Dataset Reuse: Toward Translating

Laura Koesten,17 Pavlos Vougiouklis,7 Elena Simpert,1 and Paul Groth747

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Principles to Practice

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Correspondence: Jaura America Ohd. ac.uk (L.K.), p. preth@una.ri (P.Q.) https://doi.org/10.10165.patter.2005.100136

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Wing's Callege Londan, Landar WC39 499, UK

"Lead Contact

At the same time, making-data rousable to a diverse audience in terms of domain, skill sets, and purposes, is an important way demonstrably affect the reusability of a dataset is still limited. Arther data sharing" or why industry bodies, such as the informa-



what their data tasks were - what they understood data with which they were

Insights – use ADD summaries paper, ADD gen Al paper

Characterising Dataset Search - an Analysis of Search Logs and Data Requisits

Intellin Kooperah^{anan} Lanta Koopera^{nan}, Lais-Hanati Holton⁴, Tam Honne⁶, And Tommon⁶, Hono Simport⁴

"Director of Institution, 14 "The class family designs, 14

Abstract

1. Submediations.

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Accounts: Theser Search, Vertical Reach, Search Lage

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ABSTRACT

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1 INTRODUCTION

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Talking datasets - Understanding data sensemaking behaviours

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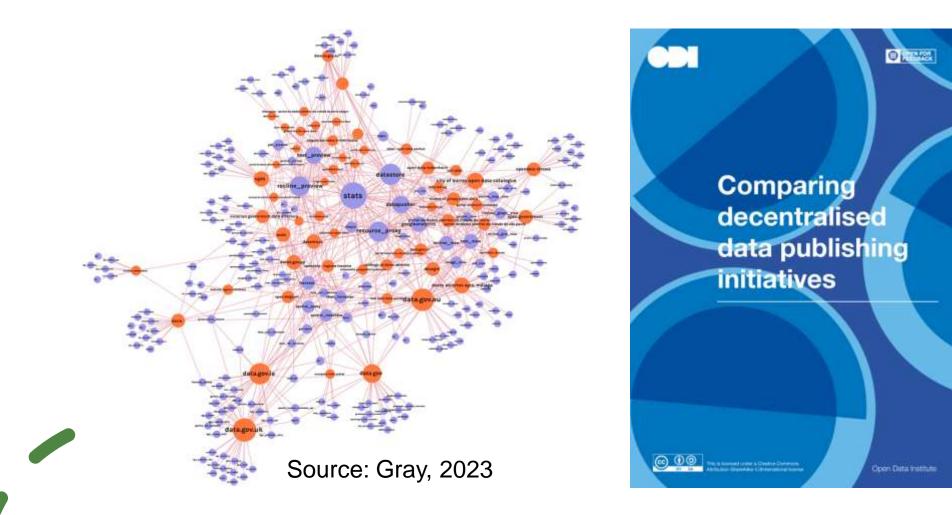
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Decentralised open-data publishing



Assessing use and impact



Manon 2092

Source: data.europa.eu, 2020

Open Data Institut

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

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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

Jata.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

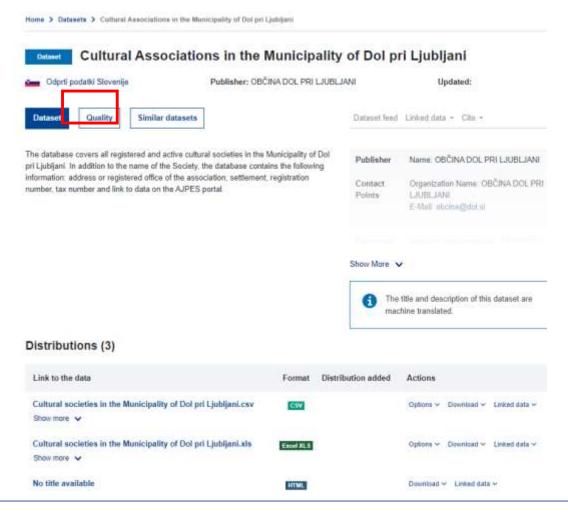
- More than 1.7 million datasets, grouped in 185 data catalogues
- Navigate or search to get to the data or catalogue you are looking for
- Benefit from many filters
- Query the data via **SPARQL endpoint**
- Access the data via an API

data.europa.eu - The official portal for European data Home Datasets Documentation 4 Publications data.europa academy News & events Contact us Home > Datasets Datasets Filler by location Q Q ljubljana Datasets V Einstat - 045C + Sort by: Relevance Datasets found (2) Catalogues Odprti podatki Słovenije * Keywords: Kutura Cultural Associations in the Municipality of Dol pri Ljubljani The database covers all registered and active cultural societies in the Municipality of Dol pri Ljubljani. In addition to the name of the Society, the database contains the following information: address or registered. Catalogues © Excelate CSV HTML v Odprti podatki Slovenije Odprti podatki Slovenije Keywords ① kultura × Quality of Life in Ljubljana, 2010 The purpose of the study Quality of Life in Ljubliana was to determine the opinions and views of the Formats ① inhabitants of Ljubliana about satisfaction with the living conditions in their the direct housing environment, t. Select HTML POF UNKNOWN Plain to



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

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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

European data

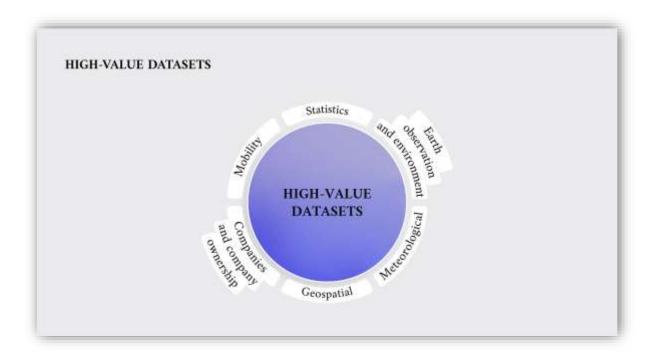
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What are high-value datasets?

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

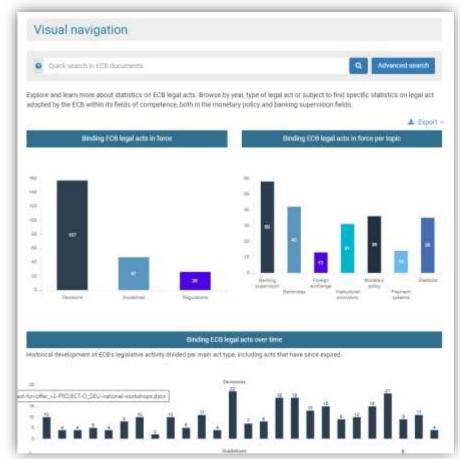
- Identified 6 thematic categories of datasets that bring benefits for society, the environment and the economy.
- Public sector bodies should make all these datasets **available** to the public in machine-readable format with open license.
- Digital Europe Programme (DEP) funded project to adapt metadata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





Thank you



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





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



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