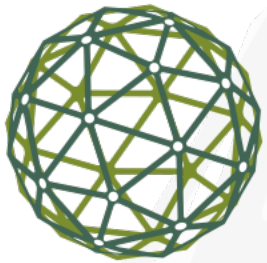


8th International Conference on BIG DATA & Data Science for Official Statistics

BILBAO 2024

Informing Climate Change and Sustainable Development Policies with Integrated Data

BILBAO. SPAIN | 10-14 JUNE 2024 | #UNBigData2024

Common European Data Spaces
and Official Statistics

Barteld Braaksma (Netherlands), Eko Rahmadian (Indonesia), Anastasija Spajic (Switzerland)

United Nations BigData

EUSKO JAURLARITZA GOBIERNO VASCO

GOBIERNO DE ESPAÑA MINISTERIO DE ASUNTOS EXTERIORES, UNIÓN EUROPEA Y COOPERACIÓN

BC3 BASQUE CENTRE FOR CLIMATE CHANGE Klima Aldaketa Ikergai

EXCELENCIA MARÍA DE MAEZTU 2023-2027

INE Instituto Nacional de Estadística

Eustat EUSKAL ESTATISTIKA ERAKUNDEA INSTITUTO VASCO DE ESTADÍSTICA

Contents

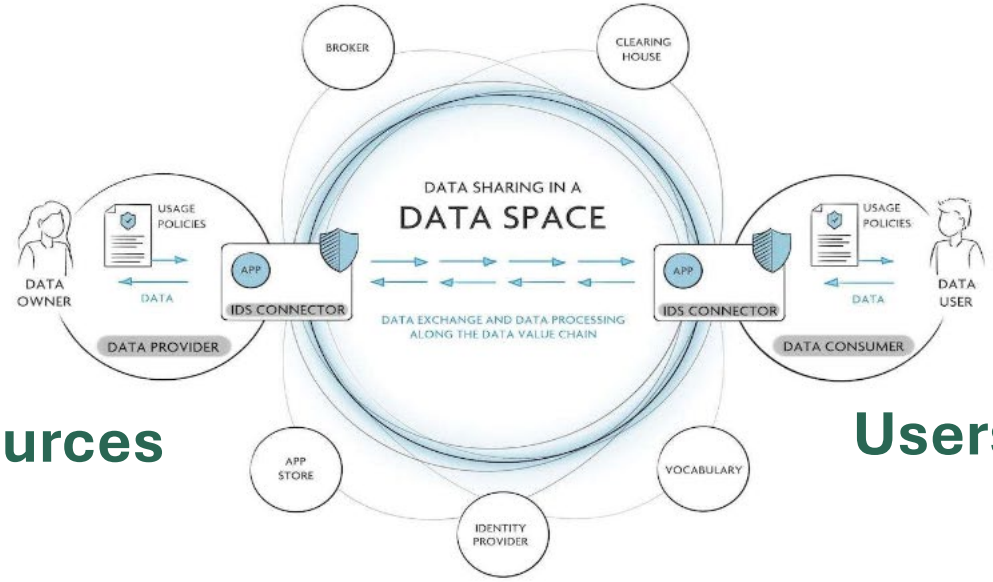
- Introduction of Common European Data Spaces
- Green Deal Dataspace
- Health Data Space (Anastasija Spajic)
- Governance framework (Eko Rahmadian)
- Take-away messages

What is a Data Space?

What role(s) for Official Statistics?

Authority

STAKEHOLDER



Sources

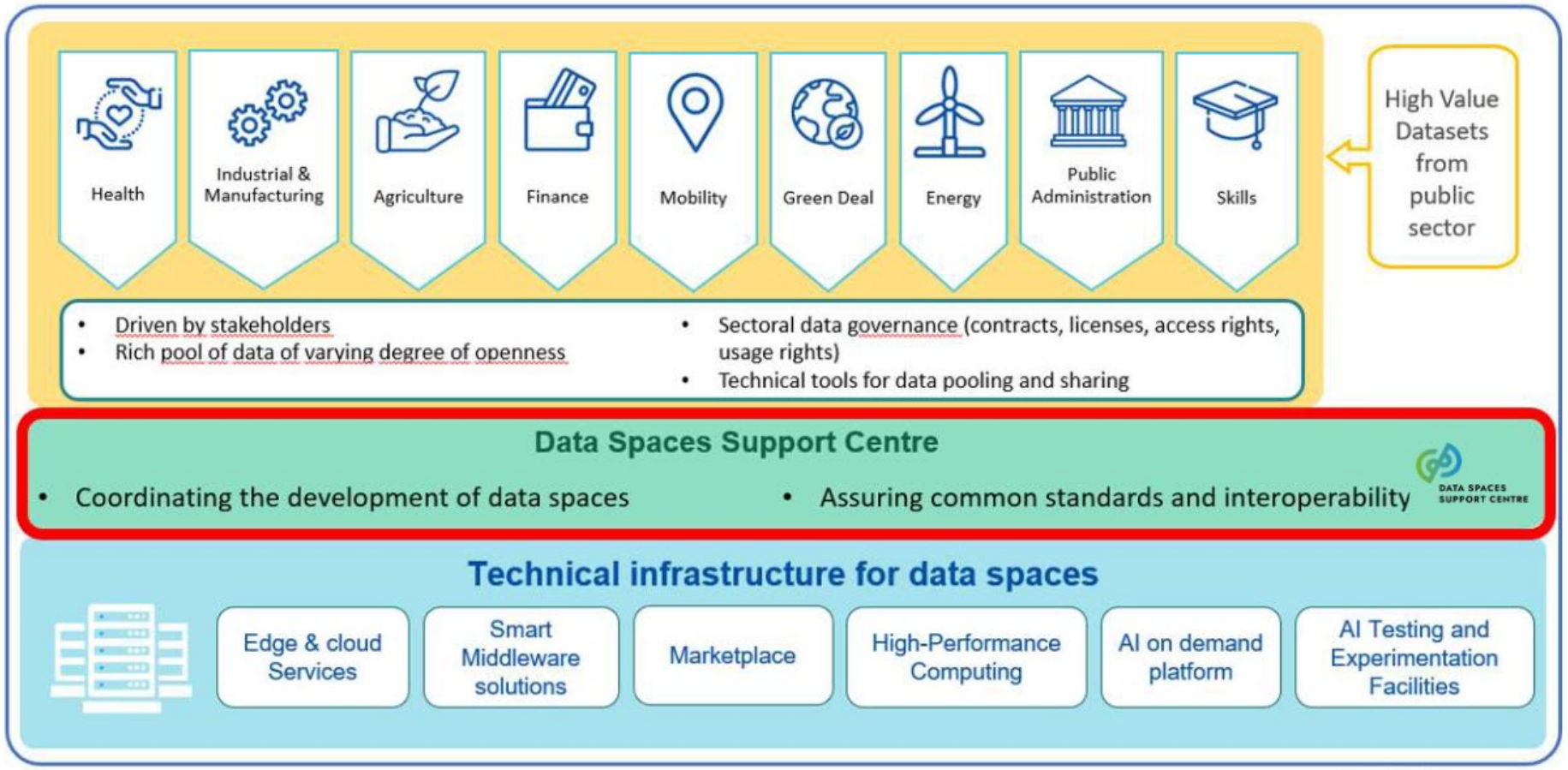
Users

Infrastructure

Interoperability
Integration
Control
'Data Market'

Four-corner principle of data space concept (International Data Spaces)

Domain-Centered Approach



[Source: EC, DG Connect]

European Commission

Example: the European Green Deal Data Space

HOME PRACTICE EXAMPLES LEGAL FRAMEWORK TECHNOLO

Home ▸ News ▸ Digital Europe Programme explained: The Green Deal Data Spa

Digital Europe Programme e Deal Data Space

25.11.2021 0 0

As part of the Digital Europe Programme, the European Commissior Spaces. These data spaces will each have a specific sectoral focus. In each of those sectoral data spaces. In this article, we dive into the Gree

In general, the data spaces will connect currently fragmented and from the private and public sectors. They will offer an interope processing, and a set of rules of legislative, administrative, and contra access to and processing of the data.

The Green Deal Data Space specifically, will link with other EU programmes such as Horizon Europe, Galileo, and Copernicus to provide large amounts of real-time data to:

- Provide relevant high-quality data from the activities related to high-value datasets; and
- Interlink to data from other sectoral data spaces where relevant; and

The Green Deal Data Space specifically, will link with other EU programmes such as Horizon Europe, Galileo, and Copernicus to provide large amounts of real-time data to:

- Provide relevant high-quality data from the activities related to high-value datasets; and
- Interlink to data from other sectoral data spaces where relevant; and
- Contribute to the Destination Earth initiative, a very high precision digital model of the Earth to enable visualising, monitoring and forecasting natural and human activity on the planet in support of sustainable development.

Ultimately, this data space is to develop into a user-driven pan-European Green Deal data space by connecting EU programmes, national, regional and local data ecosystems at the EU level. To achieve this, the Commission established a number of deliverables:

1. A sustainable data governance scheme and blueprint that connects national, regional and local data ecosystems and enables public and private stakeholders to access relevant data and to develop cross-sector data services;
2. A priority list of datasets relevant to the European Green Deal Strategy;
3. A roadmap towards the common European Green Deal Data Space.

This roadmap should ensure that relevant users, such as climate and environmental scientists, are able to access and make use of the opportunities offered by Green Deal Data Space.

Image credit:
European Commission

Tags

digital transformation European Commission

Relations with many other areas

Earth Observation Data

European Commission

DESTINATION EARTH

#DigitalEU #DestinE #DigitalDecade #DigitalEUProgramme #EUGreenDeal #CopernicusEU March 2022

Destination Earth (DestinE) will provide **unique digital modelling capabilities of the Earth** to enhance the EU's ability to **monitor** and model environmental changes, predict extreme events, and adapt EU actions and policies to climate-related challenges.

DestinE builds on EU investment in high-performance computing, massive space and socio-economic data sources at our disposal, and on the European excellence in data and AI technologies.

Climate change costs

Globally, 2021 was the fifth warmest year on record. Last summer severe floods, heatwaves and other climate-related events claimed the lives of thousands of people across Europe. Climate change has caused at least **€12.5 billion** of economic damage in Europe between 2010-2019.

A Lead for Europe

DestinE will provide evidence-based support for EU and Member State policy makers at all levels on EU environmental adaptation strategies and mitigation actions and policies, thus contributing to the digital and green transformation of Europe.

DestinE Actors

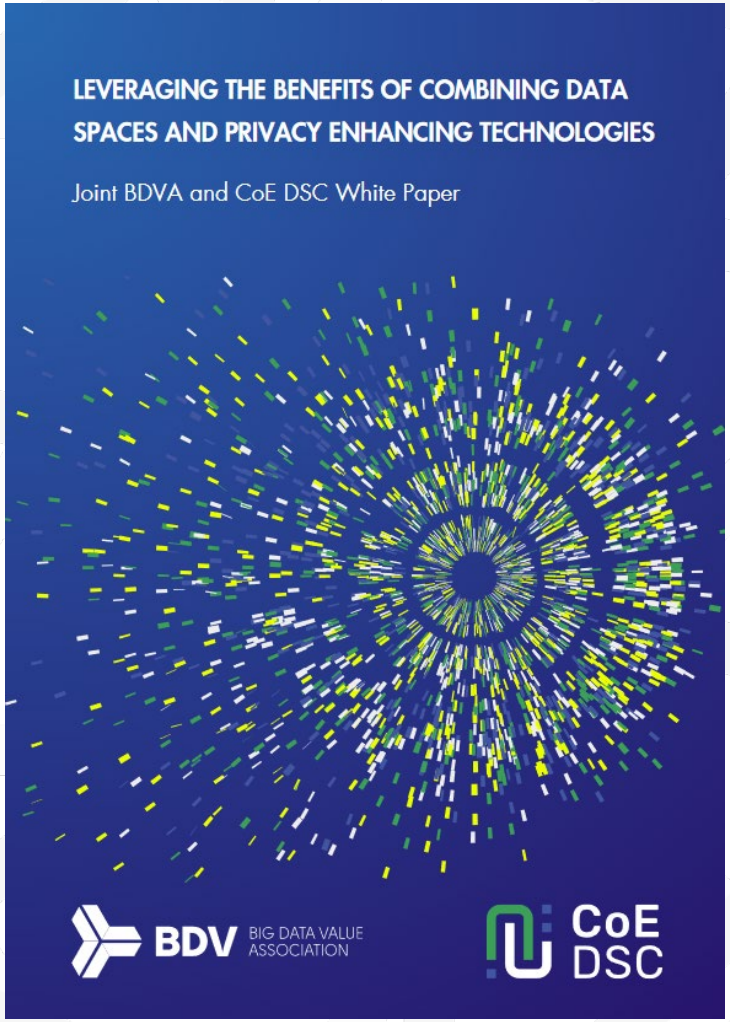
The **Commission** leads in coordination with Member States and Associated Countries
European Space Agency (ESA)
European Centre for Medium-Range Weather Forecasts (ECMWF)
European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT)

Key components of DestinE system

Core service platform

The core platform will provide decision-making tools, based on an open, flexible, and secure cloud-based computing system. It will bring together data, cloud, and high-performance computing and it will integrate access to digital twins. It will be operated by the European Space Agency (ESA).

CORE PLATFORM
(NEW) APPLICATIONS & SERVICES
DIGITAL TWINS
CLOUD INFRASTRUCTURES
HIGH PERFORMANCE COMPUTING
DATA SOURCES & INFRASTRUCTURES



Privacy Enhancing Techniques

Requests for action, funded by EU

Digital Europe Programme (DIGITAL)

Call for proposals

Cloud, data and artificial intelligence
(DIGITAL-2024-CLOUD-AI-06)

Version 1.0
15 February 2024

DIGITAL-2024-CLOUD-AI-06-GREENDEAL– European Green Deal Data Space

Objectives

The objective of this action is to deploy an opera
(GDDS). The Action is expected to take into account
data strategy and green deal landscape including the
Support Action on "Preparatory actions for the Green
the WP 2021/22. It should also take into account the
projects funded under HORIZON-CL6-2021-GOVERNA

Budget for GDDS in this call:
16 million euro

Overall EU budget for CEDS:
2 billion euro (!)

The inclusion in the proposal(s) of concrete use cases that benefit citizens and businesses and especially SMEs will be **considered an asset** in the evaluation process. Applicants are encouraged to consider the following **examples and guiding directions**:

- Collecting data for calculating certain forest indicators is essential in order to **monitor pressures and hazards encountered by forest eco-systems**.[8] The GDDS could enable access to Earth Observation and National Forest Inventories (NFI) data for calibrating geospatial machine learning models that underpin development and delivery of forest indicators. The GDDS should deploy confidentiality preserving technologies to ensure confidentiality for the plot locations of the NFI data. Proposals could also explore how access to Earth Observation and NFI data can be the basis for new downstream services benefitting the broader forest economy. Similar use cases that seek to allow access to certain environmental data-sets considered confidential in order to train machine learning models are also encouraged.
- In a **circular economy for textiles**, there is a need to close material and data loops along the value chain. The GDDS could contribute by designing and deploying a **Producer Responsibility Organization Information System (PRO-IS)**[9] as a complement and interface with the Digital Product Passports (DPPs). For instance, the PRO-IS could close data loops via collecting and feeding DPPs of newly manufactured textiles with information on the recovered/ recycled fibres content. Involving actors from the textile, waste and digital sectors for such a use case would be important.
- **Sustainability reporting and due diligence** along supply chains and operations helps private operators assess and disclose their environmental and sustainability performance while complying with legal obligations[10], which can become a competitive advantage in the sustainability race. The GDDS could support private operators in their journey to collect, verify and share "data-points" across their value chains, to calculate scope 3 GHG emissions, deforestation caused by

Example: the European Health Data Space

European Council
Council of the European Union

Home › Press › Press releases

Council of the EU | Press release | 15 March 2024 01:10

European Health Data Space: Council and Parliament strike deal

This press release was updated on 22 March 2024 to include the link to the compromise text

The Council of the EU and the European Parliament have reached a provisional agreement on a new law making it easier to **exchange and access health data** at EU level. The agreement will now need to be endorsed by both the Council and the Parliament.

The proposed regulation for a **European Health Data Space (EHDS)** aims to improv individuals' access to and control over their personal electronic health data, while

> After months of hard work and dedication, we have a deal that will strongly support patient care and scientific research in the EU. The new law agreed on today will allow patients to access their health data wherever they are in the EU, while providing scientific research for important reasons of public interest with a wealth data that will greatly benefit the develop health policies.
>
> — Frank Vandenbroucke, Belgian Deputy Prime-Minister and Minister of Social A Health

Easier access to health data for individuals

Under the new rules, individuals will have **faster and easier acc electronic health data**, regardless of whether they are in their home co y or another member state. They will also have **greater control over ho that data is used**. EU countries will be required to set up a **digital health authority** to implement the new provisions.

Greater research potential

Health Data Access Body

Provisional agreement on a new law

university of groningen

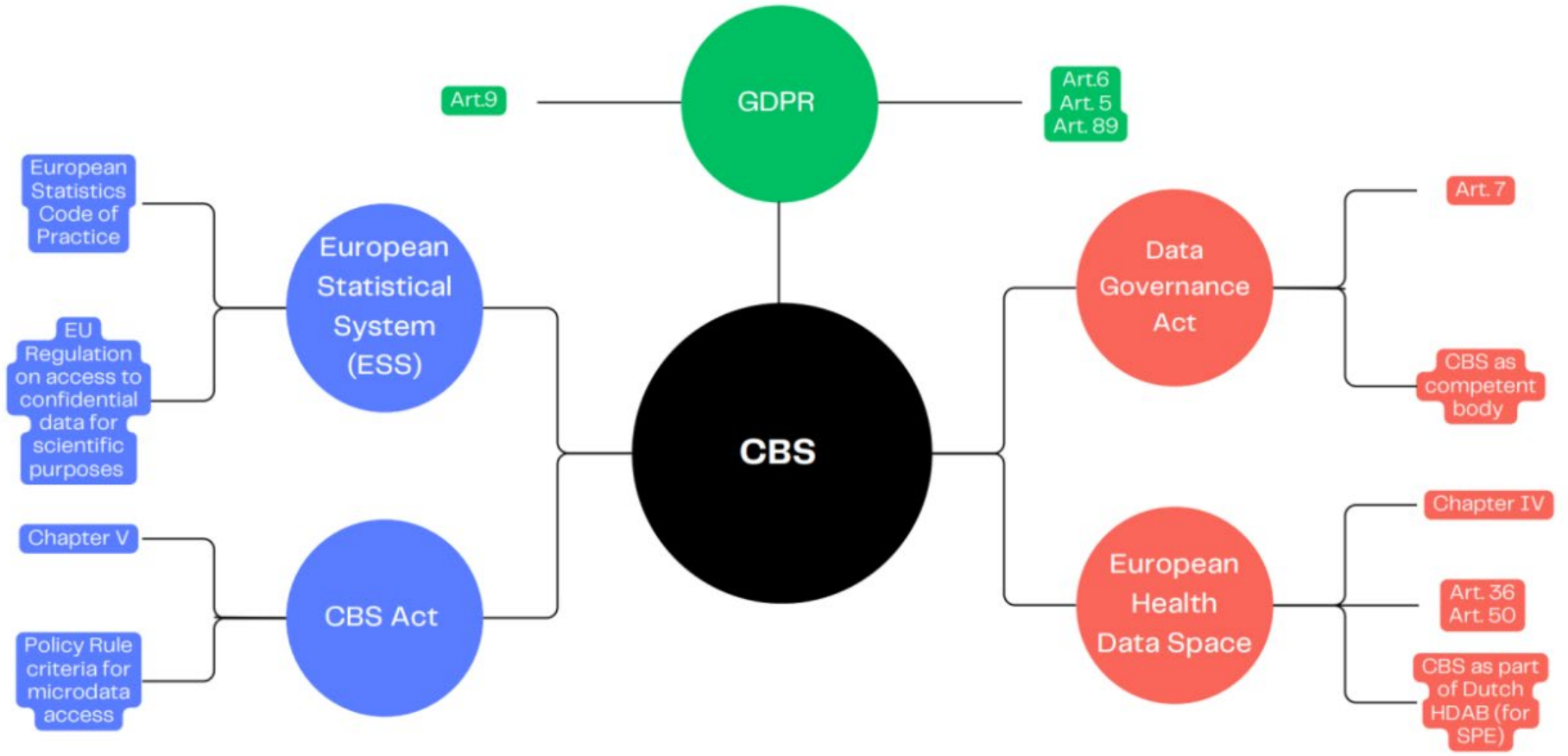
Centraal Bureau voor de Statistiek

Granting access to health data for secondary purposes – 'Good governance' assessment of legal schemes for Dutch Health Data Access Body

- ***Master Thesis Project within research internship at CBS***
- *Anastasija Spajic*
- *a.spajic@student.rug.nl*
- *28.08.2023*

Nominee Ben Feringa Impact Award 2024

Confrontation of Legal Schemes (OS and CEDS)



Conclusions- Legal Aspects Health Data Access Body

- **Both legal schemes fulfill good governance**. Decision on the most apt framework depends on interests of decision-makers and weighing the challenges

- **Lack of adequate, pre-established EU principles** that would guide data governance frameworks

- **Complexity of the interplay of legal frameworks**:
  - EU level ambiguity between EHDS and DGA.
  - New legal initatives implemented without resolving issues with existing frameworks like the GDPR.
  - Interplay between ESS and DGA underexplored.
  - Extensive research conducted on the GDPR given its revolutionary nature but little attention has been given to the ESS and pre-existing frameworks that also govern access to data for research purposes.

Many more aspects to take into consideration...

Stakeholder Engagement

Comprehending the needs and concerns of both internal and external stakeholders.

Sector and domain-spesific applications

Customize initiatives and policies to tackle the distinctive challenges and prospects within each realm.

Governance

Establishing a robust governance and regulatory framework is essential for effectively overseeing the operations of CEDS.

Interoperability and data sharing

Enabling seamless data exchange and collaboration within CEDS and across other data spaces.

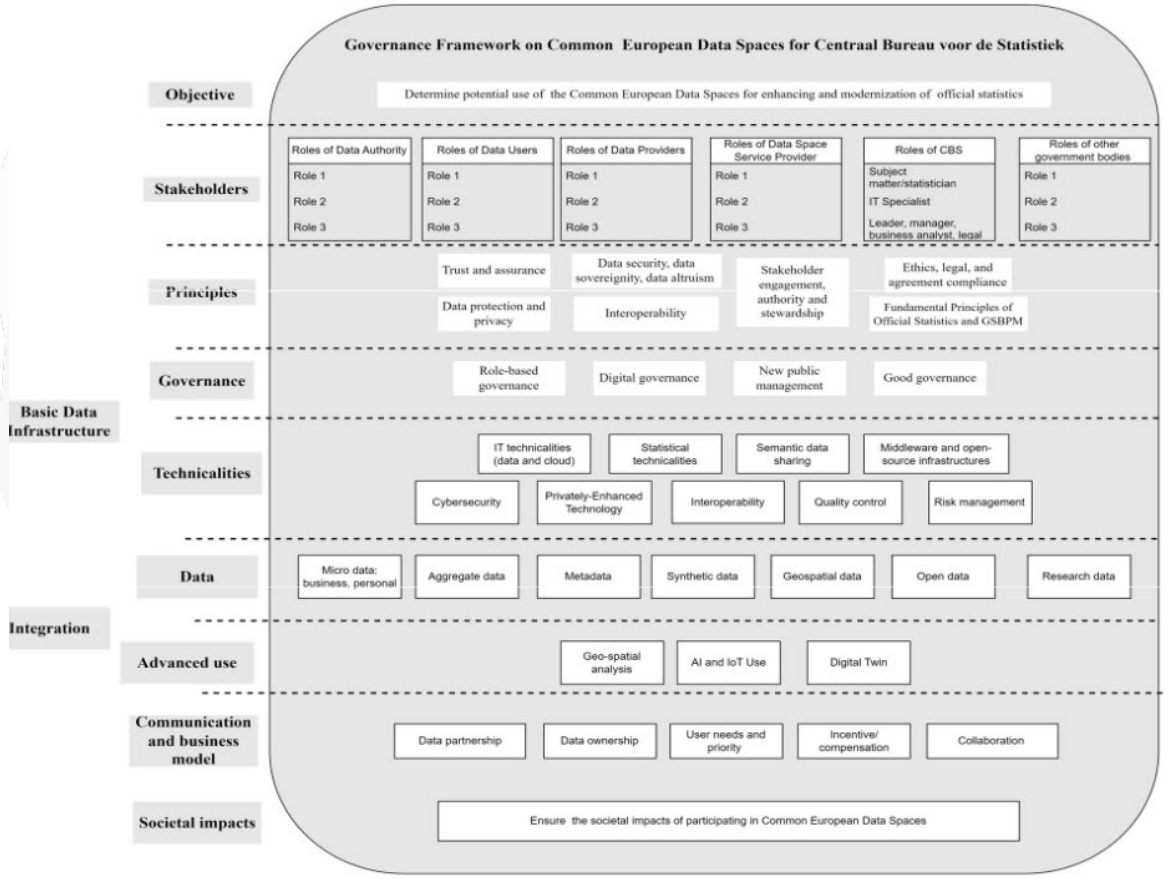
Organizational Capabilities

Building the capacity of stakeholders (particularly internal stakeholders and close partners) to effectively participate in CEDS.

Collaboration

Collaboration with national and international partners and organizations is essential to align policies, share best practices, and address common challenges

How to make choices?

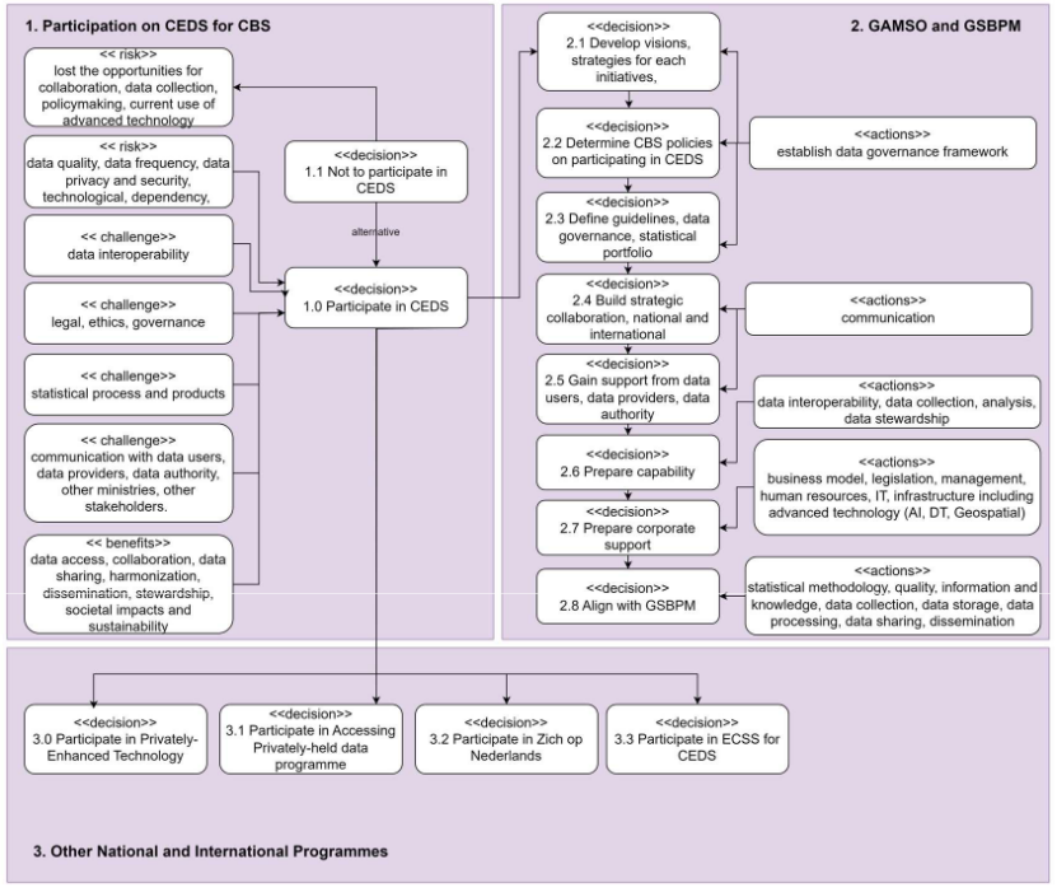


PROPOSED GOVERNANCE FRAMEWORK FOR CBS

Set of policies, guidelines, rules, actions on data governance; to provide comprehensive overview, ensure the benefits, and mitigate the risks.

© Eko Rahmadian, March 2024

Questions and decision trees



How to implement?

DECISION RELATIONSHIP VIEWPOINT

Describe the relationship of each decisions on participating on CEDS for CBS with GAMSO, GSBPM, and other programmes.

It helps CBS to track decisions for transparency, accountability and clarity.

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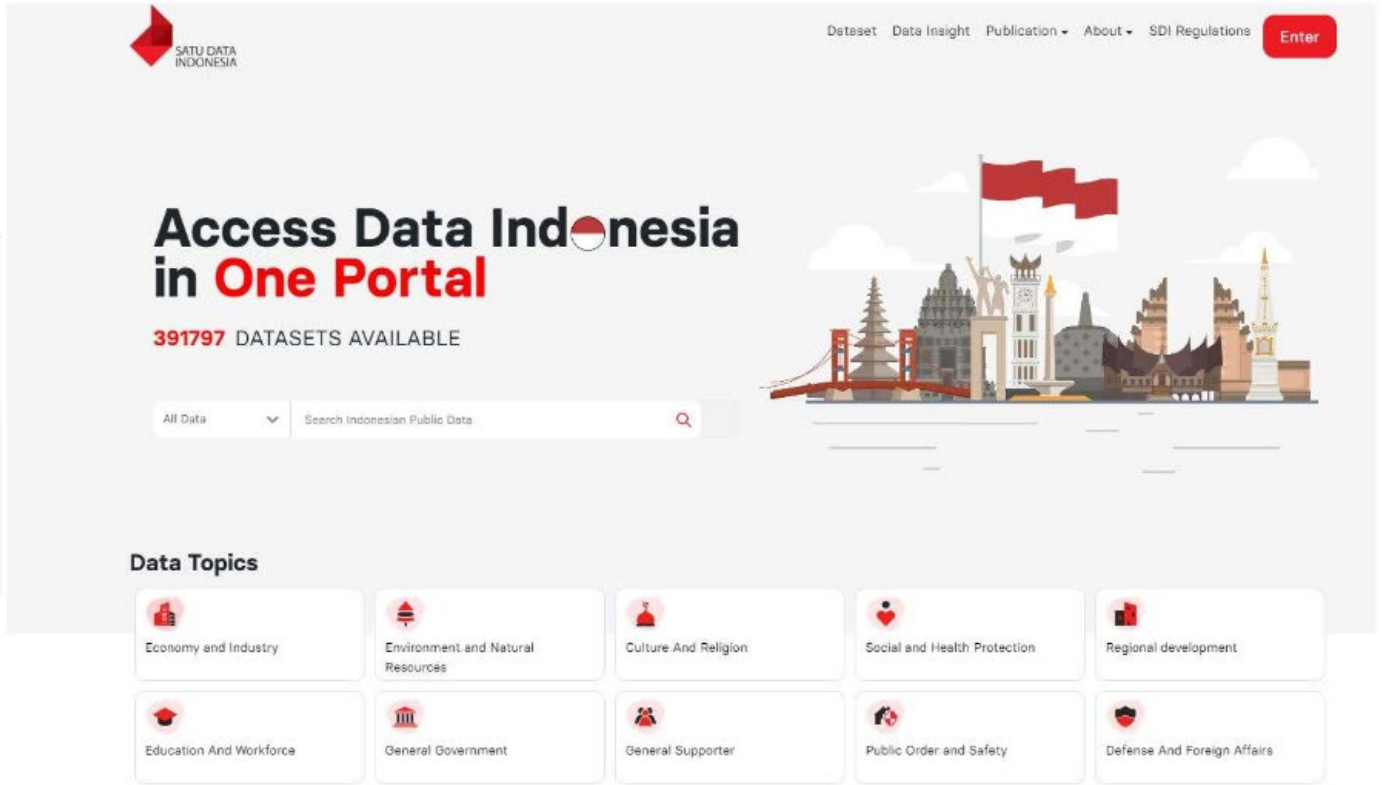
Not only in Europe ☺



A data governance policy to produce data that is accurate, up-to-date, integrated and accountable, as well as accessible and easy to share between government agencies in national level and regional agencies in sub-national levels, through compliance of the principles: standard data, metadata, data interoperability, and using reference code and master data.

One Data Indonesia

Take-aways

- A lot of activity, often domain-specific
- Many stakeholders involved
- Important to join the discussions!
- What's in it for Official Statistics?
- **Data spaces lead to broader strategic questions**
- Not just Europe!

For further information please contact

Barteld Braaksma, Innovation Manager Statistics Netherlands

b.braaksma@cbs.nl

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