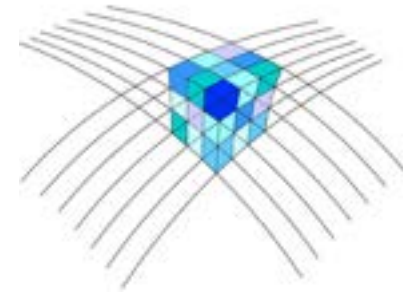


The European Open Science Cloud and the challenges of the NCG community



Dr. Ingrid Dillo, adjunct-directeur DANS

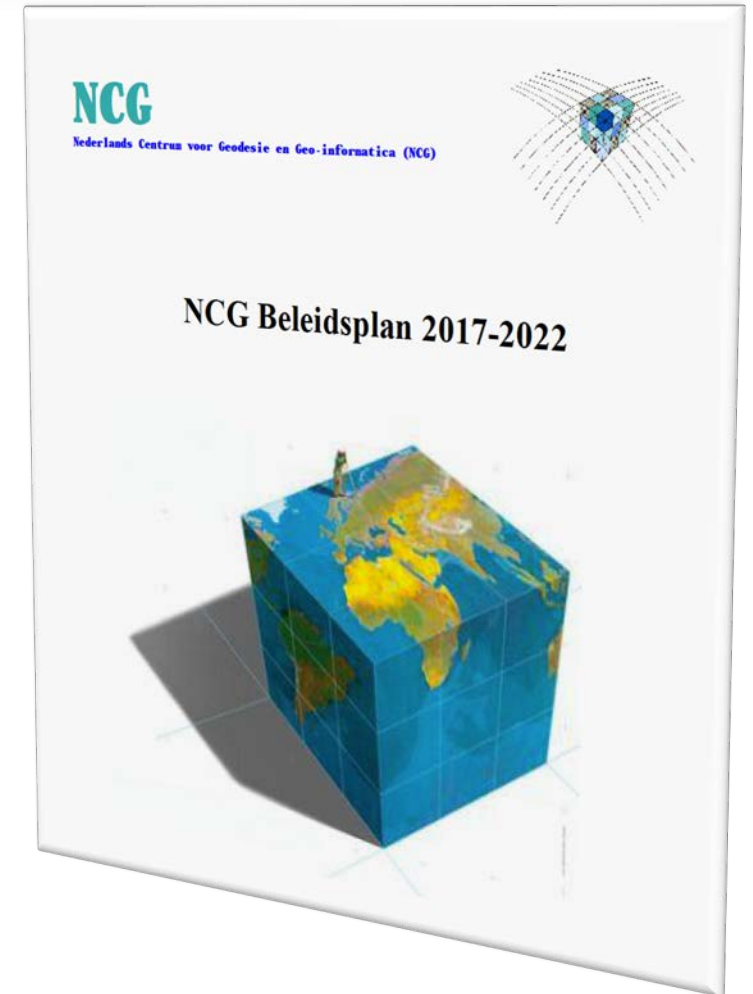
NCG Workshop De betekenis van de Europese data strategie voor Nederland

18 februari 2021

NCG Policy plan 2017-2022

Important trends: 4 out of 6 data related!

- Data deluge: 3Vs
- More open data
- More citizen science
- Growing need for flexible data infrastructure
- Higher demands data analysis and information extraction



The EOSC: the what and why



**EUROPEAN OPEN
SCIENCE CLOUD**

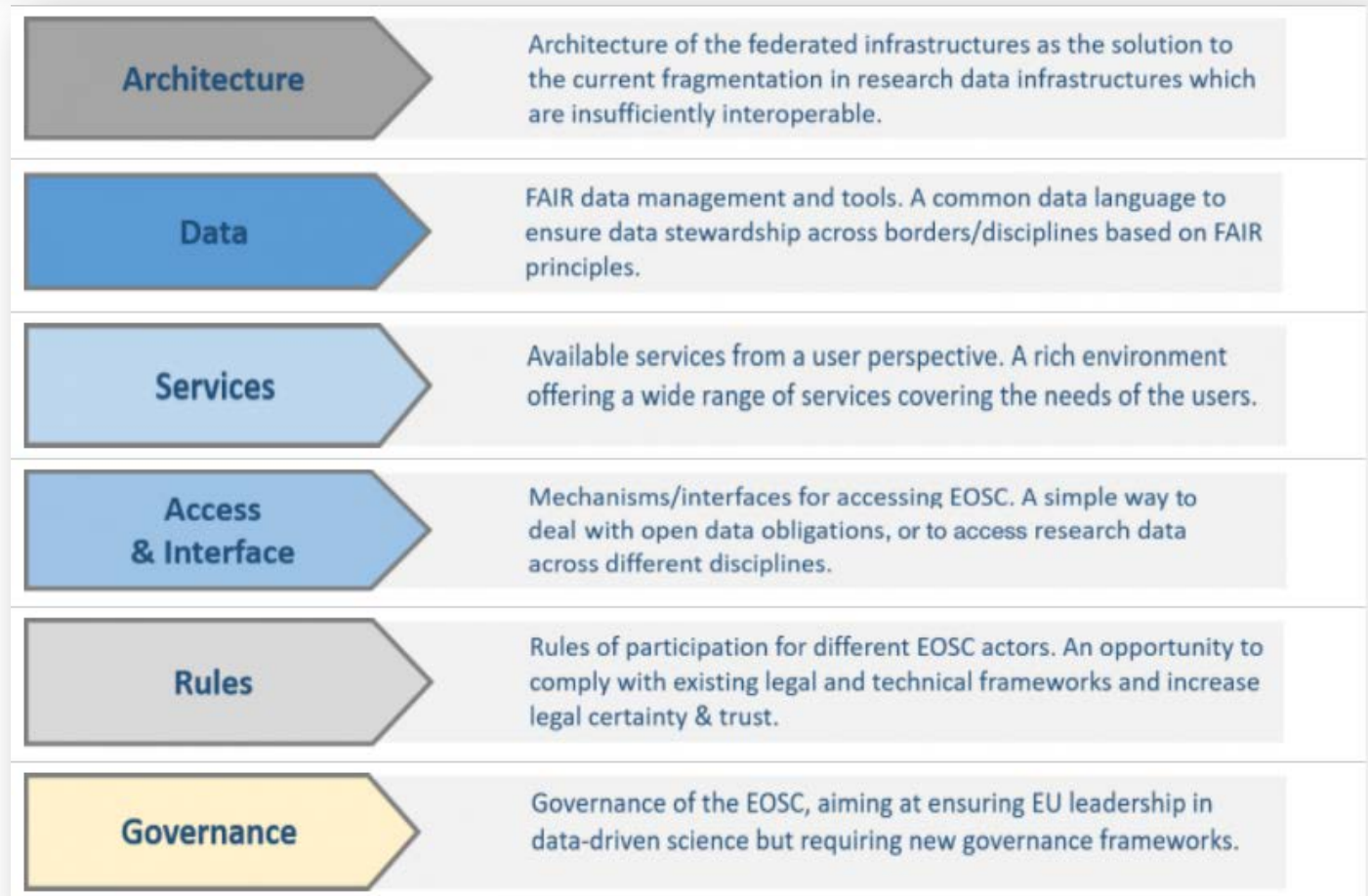
The idea of a European Open Science Cloud took shape in 2015, as a vision of the European Commission of a large infrastructure to support and develop **open science** and open innovation in Europe and beyond.

The EOSC would be Europe's **virtual environment** for all researchers to store, manage, analyse and re-use data for research, innovation and educational purposes.

..in order to give Europe a **global lead** in scientific data infrastructures and to ensure that European scientists reap the full benefits of data-driven science.

The EOSC: huge ambitions

The EOSC will offer 1.7 million European researchers and 70 million professionals...a virtual environment with open and seamless services for storage, management, analysis and re-use of research data, across borders and scientific disciplines by federating existing scientific data infrastructures, currently dispersed across disciplines and the EU Member States.



Where are we now?

<https://eosc-portal.eu/>

EUROPEAN OPEN SCIENCE CLOUD About Services & Resources Policy Use Cases Media For providers Subscribe Using the Portal

EOSC Portal - A gateway to information and resources in EOSC

Experiencing the EOSC Portal

Discover all the main functionalities and updates for users and providers!

Access the EOSC Portal Catalogue & Marketplace

- NETWORKING
- COMPUTE
- STORAGE
- SHARING & DISCOVERY
- DATA MANAGEMENT
- PROCESSING & ANALYSIS
- SECURITY & OPERATIONS
- TRAINING & SUPPORT

DANS and the EOSC



FAIRsFAIR project

FAIRsFAIR - practical solutions for the use of the FAIR data principles throughout the research data life cycle with an emphasis on fostering FAIR data culture and the uptake of good practices in making data FAIR

FAIRsFAIR key facts

- EU funded Horizon2020 project
- Starting date: March 1 2019
- Duration: 36 months
- Budget: 10 million euro
- 22 partners from 8 member states



FAIRsFAIR
Fostering Fair Data Practices in Europe

About DANS

- DANS is the Dutch national centre of expertise and repository for research data.
- We help researchers make their data available for reuse. This allows researchers to use the data for new research and makes published research verifiable and reproducible.
- With more than 160,000 datasets and a staff of 60, DANS is one of the leading repositories in Europe.

New DANS 2021-2025 programme 'Focus on FAIR'

<https://dans.knaw.nl/nl/over/organisatie-beleid/beleid-en-strategie/dans-2021-2025/dans-2021-2025>

Centre of expertise for FAIR research data

Data Archiving and Networked Services

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ABOUT DANS

NEWS AND EVENTS

Use our knowledge on **Research Data Management** through a **training**, **presentation** or **consultancy process**.



Would you like to know more about digital sustainability, software sustainability, data management, FAIR data?

TRAINING MATERIAL



Keep up to date on webinars, presentations and workshops in the field of Research Data Management.

PRESENTATIONS



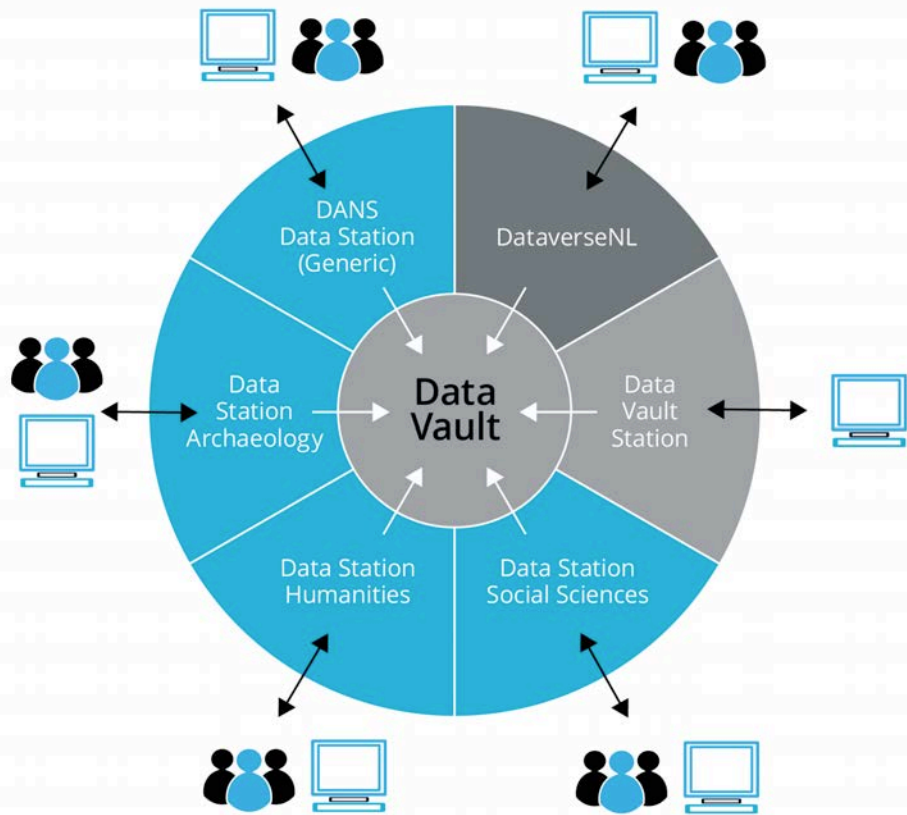
Please consult me on Research Data Management or the certification of data services.

CONSULTANCY

Data Archiving and Networked Services

DANS

Repository for research data

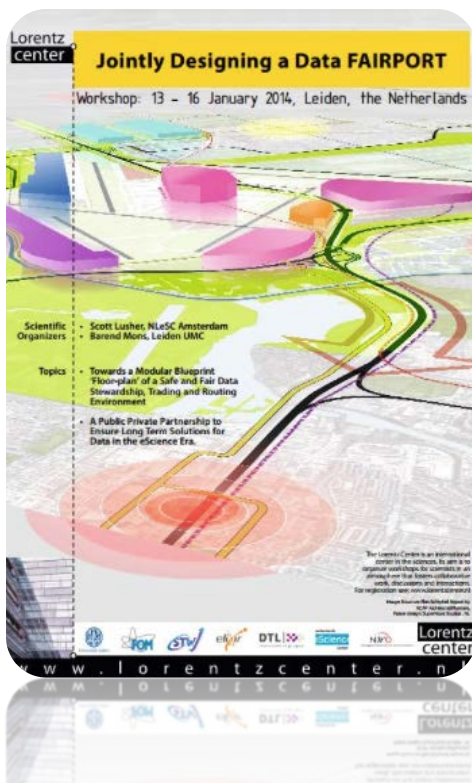


New repository infrastructure with

- Three domain-specific Data Stations
 - Archaeology
 - Humanities
 - Social Sciences
- DataverseNL: Repository Service for Universities, Universities of Applied Sciences and Research Institutes
- Generic Data Station
- Vault Data Station for Long-Term Preservation

Challenge: data integration

EOSC: a web of FAIR data and related services for science, making research data interoperable and machine actionable following the FAIR principles



<http://datafairport.org/fair-principles-living-document-menu>

<https://www.force11.org/group/fairgroup/fairprinciples>

<https://www.nature.com/articles/sdata201618>

Box 2 | The FAIR Guiding Principles

To be Findable:

- F1. (meta)data are assigned a globally unique and persistent identifier
- F2. data are described with rich metadata (defined by R1 below)
- F3. metadata clearly and explicitly include the identifier of the data it describes
- F4. (meta)data are registered or indexed in a searchable resource

To be Accessible:

- A1. (meta)data are retrievable by their identifier using a standardized communications protocol
 - A1.1 the protocol is open, free, and universally implementable
 - A1.2 the protocol allows for an authentication and authorization procedure, where necessary
- A2. metadata are accessible, even when the data are no longer available

To be Interoperable:

- I1. (meta)data use a formal, accessible, shared, and broadly applicable language for knowledge representation.
- I2. (meta)data use vocabularies that follow FAIR principles
- I3. (meta)data include qualified references to other (meta)data

To be Reusable:

- R1. meta(data) are richly described with a plurality of accurate and relevant attributes
 - R1.1. (meta)data are released with a clear and accessible data usage license
 - R1.2. (meta)data are associated with detailed provenance
 - R1.3. (meta)data meet domain-relevant community standards

Challenge: trust and keeping data FAIR

- Trust is a central element in data sharing
- Long-term preservation in FAIR enabling trustworthy repositories



Principle	Guidance for Repositories
Transparency	To be transparent about specific repository services and data holdings that are verifiable by publicly accessible evidence.
Responsibility	To be responsible for ensuring the authenticity and integrity of data holdings and for the reliability and persistence of its service.
User Focus	To ensure that the data management norms and expectations of target user communities are met.
Sustainability	To sustain services and preserve data holdings for the long-term.
Technology	To provide infrastructure and capabilities to support secure, persistent, and reliable services

<https://www.rd-alliance.org/trust-principles-rda-community-effort>

The screenshot shows the CoreTrustSeal website. At the top is the CoreTrustSeal logo and a navigation menu with links for Home, About, Certification, Certified Repositories, Apply, and Contact. The main banner features the text "100TH CORETRUSTSEAL-CERTIFIED TRUSTWORTHY DATA REPOSITORY" and "ODUM INSTITUTE FOR RESEARCH IN SOCIAL SCIENCE". Below the banner are three sections: "DATA REPOSITORIES REQUIREMENTS", "HOW TO APPLY", and "LIST OF CERTIFIED REPOSITORIES". At the bottom, statistics show "16+ Requirements" and "160+ Certified Repositories".

Meer informatie



DataLink



@DANS_knaw_nwo



DANS_knaw_nwo



E-data & Research



info@dans.knaw.nl



dans.knaw.nl

Hartelijke dank voor uw aandacht!

Ingrid.dillo@dans.knaw.nl

www.dans.knaw.nl

<https://pure.knaw.nl/portal/en/persons/ingrid-dillo>