



# Exploring and optimizing the Dutch Research Data Landscape

DTL Partner Advisory Committee – 28 May 2020

By Melle de Vries (Royal Netherlands Academy of Arts and Sciences,  
project manager for this NPOS-project)

# National Program for Open Science

- In the Netherlands Program for Open Science we will accelerate on the road towards open science, along three program lines:
  - **Open Access**, making all research output (articles etc.) accessible for everyone without costs
  - **FAIR data**, making all research data Findable, Accessible, Interoperable and Reusable
  - **Citizen science**, promoting to involve citizens to participate in science programs
- In all program lines we pay attention to the fair recognition and rewarding of researchers with respect to their contribution to open science

# Program line FAIR data: two projects

- Exploring and optimizing the Dutch research data landscape
  - Collecting good practices and exploring and developing the necessary improvements in the national 'data landscape' in order:
    - to create better boundary conditions for the NPOS ambition of the optimum reuse of research data;
    - to boost cooperation between data-intensive scientific fields and the resulting societal force for innovation; and
    - to prepare participation in the European Open Science Cloud (EOSC) at national level.
- Education and training in Open Science and Datastewardship (in this project participation of DTL, with Celia van Gelder and Mijke Jetten)

# Project team 'Data Landscape'

- Melle de Vries, KNAW (Royal Netherlands Academy of Arts and Sciences), project manager
- Ruben Kok, DTL (Dutch Techcentre for Life Sciences)
- Maurice Bouwhuis, SURF (collaborative organisation for ICT in Dutch education and research)
- Pieter Schipper, NWO (the Dutch Research Council)



# Dutch Research Data Landscape

## FAIR data users and suppliers:

- Academic researchers
- Citizens (whether or not citizen scientists)
- Data science initiatives
- Civil society organisations
- Public authorities
- Private companies
- ...

## Actors in the national infrastructure for research data

### Policy:

- OCW (Ministry of Education, Culture and Science)
- NPOS (Netherlands Plan on Open Science)

### Funders:

- NWO, ZonMw, SGF (Association of Dutch Health Foundations) and others

### Representative organisations:

- KNAW (Royal Netherlands Academy of Arts and Sciences), NFU (Netherlands Federation of University Medical Centres), VH (Association of Universities of Applied Sciences), VSNU (Association of Universities in the Netherlands )
- Data Science Platform Netherlands

### Domain infrastructures:

- CLARIAH, ODISSEI, Health-RI, and others

### Data repositories:

- 4TU.ResearchData, BBMRI-NL, CEDAR, DataverseNL, DANS-EASY, ELIXIR-NL, SURF, TLA, institutional repositories

### Software development:

- NLeSC, SURF

### Research organisations:

- Universities, KNAW and NWO institutes, UMCs, National Knowledge Institutes, TO2, Universities of Applied Sciences

### Libraries:

- National Library of The Netherlands
- Institutional Libraries

### Expertise and training:

- DANS, DTL, GO-FAIR, LCRDM (SURF)

## Under construction

### International Data Services:

- CrossRef, Datacite, Dryad, Figshare, GitHub, Mendeley, OSF, ResearchGate, Zenodo, etc.

### European research infrastructures:

- EOSC European Open Science Cloud)
- ERICs (European Research Infrastructure Consortia) and ESFRIs (European Strategy Forum on Research Infrastructures)
- EC programmes, such as EUDAT and OpenAIRE

### Other international cooperation:

- ISC/CODATA, CTS, GO-FAIR, OECD, Research Data Alliance, WDS

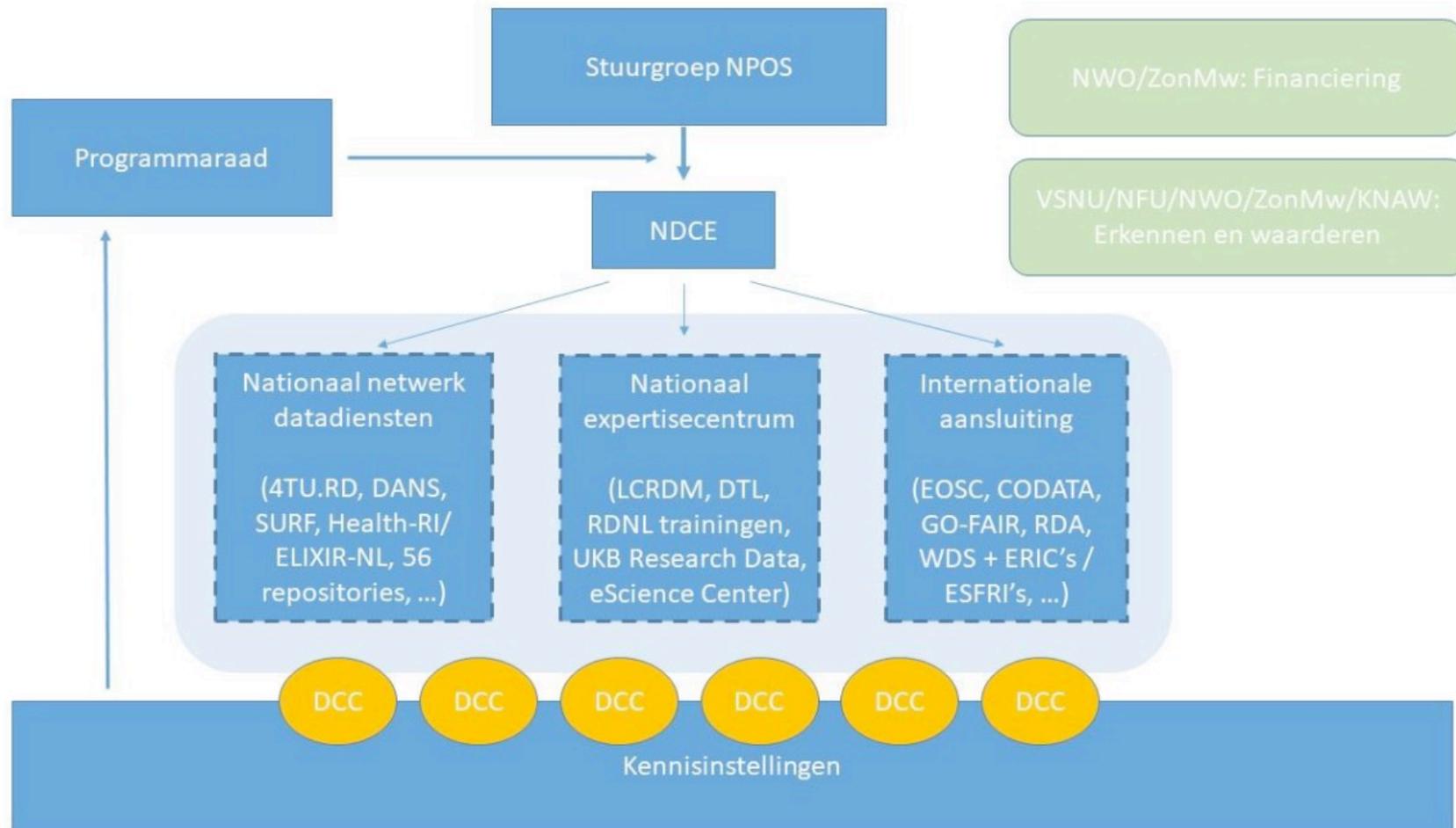
# Course of the landscape exploration

- Analysis of several national and international reports
- Special interest for the development of the European Open Science Cloud (EOSC)
- Two panel meetings (>50 participants)
- Visits to the research performing organisations, where we spoke with researchers and research supporters (>150)
- Exchanges with other countries (Denmark, Germany, Sweden)
- Several other meetings

# Almost at the finish

- We will conclude our project next month (June 2020)
- Our main finding
  - There are many good initiatives, there is a lot of fragmentation
- Our main recommendations
  - Keep the bottom-up approach as baseline
  - Strive for more connection, efficiency and synergy, and therefore choose for more coordination relating to a) Data services; b) Expertise and training; and c) International collaboration
  - Invest in quantity and quality of data stewardship

# Proposed roadmap



# Data Competence Centers

- At the moment all research performing organisations have or develop their own local data competence center (DCC), for local support for their own researchers
- This initiative is part of the plan for digitisation of science, with additional funding from the Dutch government
- To be discussed is the need and position of thematic data competence centers, for specific science domains or disciplines

# Further attention is needed for

- Resolution of IPR and privacy bottlenecks
- Data protocols for the several disciplines
- Grow in number and qualification of data stewards
- Recognition and rewarding of researchers
- Funding mechanisms
- Connection with industry partners