

How to do EOSC at national level? The Danish example

- The *Danish Strategy towards a national eInfrastructure*
- A national strategy for Data Management based on FAIR
- What do researchers think about DM, FAIR and EOSC?
- How do we get them think differently?



EOSC-Nordic Policy Workshop - 6th February 2020 - Chairman of the DeiC Board John Renner Hansen

Restructuring for the Future

- Increasing amounts of research data across the scientific fields, including new fields, doubles every 6-12 month, requires access to increasingly larger safe storage and computer systems → exascale
- Political pressure to comply with Open Science standards and to use FAIR principles to organize data
- Wish to participate more actively in European initiatives: European Open Science Cloud, EuroHPC...



Time to take a step back and consider:

- Organization of the national digital research infrastructure
- Ownership and collaboration across Danish universities
- Funding
- Involvement in international activities

A new strategy

- Developed by a working group with members from the universities and the Ministry of Higher Education and Science (the ministry)
- Released and approved by the minister December 2018
- A new DeiC Interim board was appointed on 1st January 2019 with the task to implement the strategy



Vision and principles in the strategy

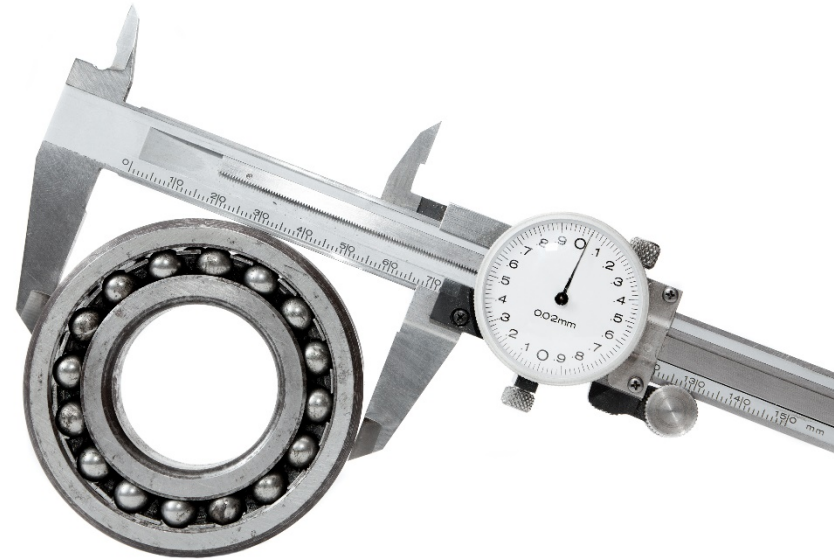
Researchers and students at the 8 Danish Universities from all scientific areas have access to a digital infrastructure enabling world-class research and education

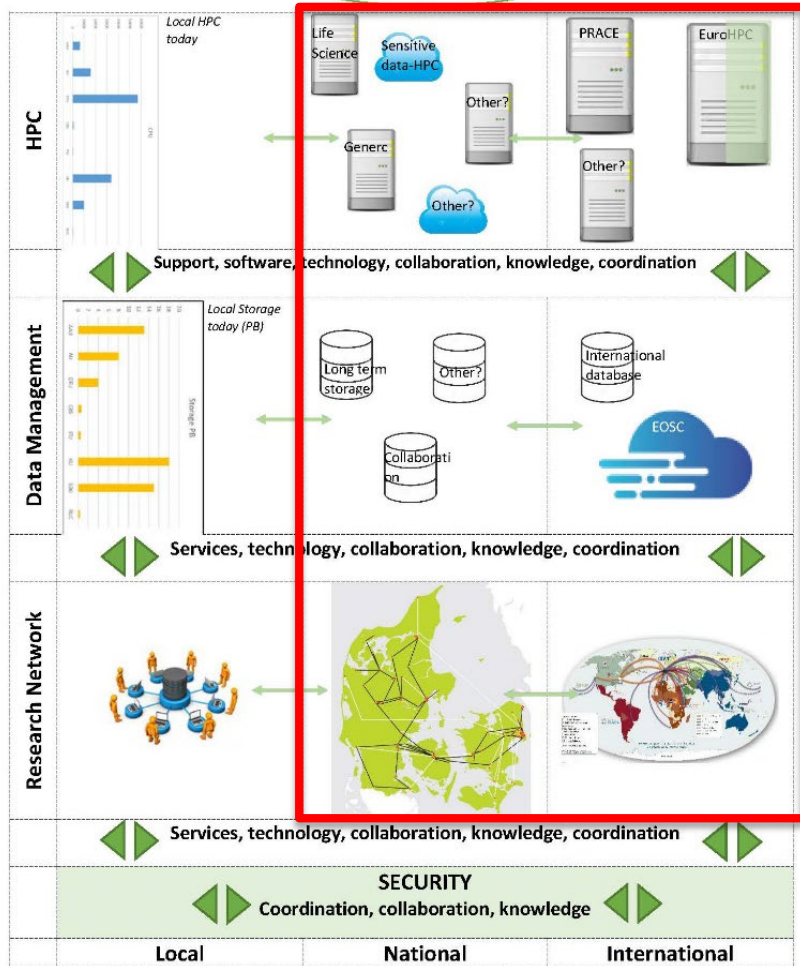
- > Access is seamless and the infrastructure is delivered "as-a-service", including support.
- > Roles and responsibilities are clearly divided between the national and institutional level
- > Investments in costly digital eInfrastructure for research is coordinated, utilized and operated effectively
- > A long lasting and flexible collaboration with strong international ties
- > Economic stability must secure a continuous modernization of technology and continuous development of competence.



Preparations for the future 2019-2020

- New interim board with representatives from all 8 Danish universities (owners). Members appointed from the university top management level
- Agreement between the universities and the ministry on future funding based on a 50:50 model
- Definition of the future HPC landscape: local/national/international
- Definition of the future storage and data management landscape
- Establishment of an organization, that supports the national and international collaboration





Data Management (and – storage)

From the strategy
Current status

The national collaboration must

- > Contribute to a national DM-strategy based on FAIR principles
 - DeiC asked by the Ministry to lead the work.
 - Mission approved by the Ministry February 2020.
- > Strengthen local and national storage capacity
 - Mapping of needs and opportunities in progress (later slide)
- > Ensure a secure infrastructure for sensitive data
- > Strengthen the dialogue with preservation institutions concerning data and data management
- > Establish a collaboration with European Spallation Source Data Management and Software Center (ESS DMSC) on competences and methods

New national data management strategy based on FAIR

> To be formed as a Strategy

- > DeiC leads the work. A wide range of public and private stakeholders will be asked to contribute in the steering committee and working groups
- > One working group on Data Management strategy and one on cost and cost sharing
- > Strategy to be launched by the Minister December 2020

The strategy will

- > Define a set of principles on how the researchers, research institutions, preservation institutions, research funds etc. should handle issues regarding data management based on the FAIR principles
- > function as an easy-to-read reference document for the users and systems organizers
- > guide how to estimate extra overhead and how to share the extra cost



Recommendations for DM and storage

Working group with representatives from the eight universities delivered a report to the board on 15th September 2019 with recommendations for the future national data management and -storage landscape (headlines):

- > Develop a general service for researchers with limited storage needs
- > Develop national services and establish national storage facilities for all research
- > Consider national purchase of licenses contracts with potential suppliers
- > Establish Front office (support) functions at the universities, and a national coordinating Back Office with expert knowledge.
- > An extended evaluation of future needs for national data storage and organization expected May 2020



Improve ability:

- Training
- Collaboration – learn from peers
- Knowledge on strategy and goals

Improve motivation:

- More and better tools for research
- Higher quality of research output
- Better quality control
- Easier to collaborate
- Awards (citations, salary, ..)

Trigger:

- New rules and regulations (new law)
- New project that requires action
- Required by funding authority (private or public)

