WEBINAR ‘JOINTLY TOWARDS SUSTAINABLE RESEARCH DATA’
2 JUNE 2021

THE JOURNEY TOWARDS SUSTAINABLE RESEARCH DATA: MATURITY ASSESSMENT AS A WAY FORWARD
THE GERMAN RESEARCH FOUNDATION (DFG)

- Autonomous and independent self-governing organisation
- Aiming at best framework conditions: from science - for science
- Science-led according to the "bottom-up" principle
- Decision-making bodies are composed in their majority of scientists

The German Research Foundation serves science in all its branches by providing financial support for research work and by promoting national and international cooperation among researchers.
THE GERMAN RESEARCH FOUNDATION (DFG)

Scientific impact - impact for science

- Structure building and accent-setting (infrastructure funding, e.g. National Research Data Infrastructure - NFDI)
- Focussed policy/strategic initiatives (scientific advisory function, e.g. Interdisciplinary Commission for Pandemic Research)
- Member of the Alliance of Science Organisations (incl. all German Science Organisations, DFG is the representative in the EOSC Association)
- DFG President Katja Becker elected as Chairperson of the GRC Governing Board
SUSTAINABLE RESEARCH DATA: THE STARTING POINT

• “Sustainability” – a core requirement of Open Science and an “evergreen” among the research data topics

• Challenges:
  o Complex and diverse landscape with many actors and data sources involved
  o Wide range of different needs and responsibilities on local, (inter)national and disciplinary levels
  o All actors need to recognise their role and play their part effectively
"Digital information lasts forever - or five years, whichever comes first."

Jeff Rothenberg, 1997

Who Will Pay for Public Access to Research Data? Francine Berman and Vint Cerf, SCIENCE VOL 341 9 AUGUST 2013, 616

The Value and Impact of Data Sharing and Curation, A synthesis of three recent studies of UK research data centres; Neil Beagrie (Charles Beagrie Ltd) and John Houghton (Centre for Strategic Economic Studies, Victoria University); JISC, March 2014

Business Models for Sustainable Research Data Repositories; OECD SCIENCE, TECHNOLOGY AND INNOVATION POLICY PAPERS; December 2017 No. 47

(1) Growth of Information and Storage Trends; Projected growth of global information creation outpaces growth of available storage.
CRITICAL QUESTIONS REMAIN

• What digital information should we preserve?
• Who will preserve it?
• Who will pay for it?


WEBINAR 'Jointly towards Sustainable Research Data'
SUSTAINABLE RESEARCH DATA: EN ROUTE

• Sustainability of research data has many facets, availability and access are crucial
• The realisation of sustainable access to research data remains a long road
• Stakeholders include RFOs, RPOs and RDIs
• How and where to continue?

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THE TOOL: COMPLEMENTARY MATURITY MATRICES FOR RFOs, RPOs AND RDIs
WHY OH WHY?
WHY ANOTHER RDM ACTIVITY AND WHY SCIENCE EUROPE?

• Long-term sustainability requires a clear understanding and acceptance of ROLES and RESPONSIBILITIES
  - SE member organisations have a common interest in improving this clarity
  - Lot going on, e.g. OECD, CODATA, RDA and EOSC – though less guidance available for RFOs

• Work undertaken by members of the Task Group on ‘Sustainable...
  - Input from external experts via a validation workshop and from...

• Combined knowledge has provided something which is hopefully of use to...
  - SE members and beyond

Recommendation of the OECD Council concerning Access to Research Data from Public Funding

On 26 January 2022, the OECD Council adopted a revised Council Recommendation on Access to Research Data from Public Funding. The legal instrument, in force since 2003, focuses on the expectations of a range of stakeholders on access to research data, including researchers, funders, and others. The Recommendation provides guidance to countries on how to ensure that research data are accessible and usable for the benefit of society. It also includes provisions on the management of research data, such as data sharing, rights management, and the use of data.

WHAT & WHO?
WHAT DO THE MATRICES DO & WHO ARE THEY AIMED AT?

• A tool to help research organisations in:
  o Assessing how developed their RDM activities are
  o What further steps they could consider to improve RDM and ensure long-term sustainability

• Matrices developed to support three types of research organisation
  o Research FUNDERS (RFOs)
  o Research PERFORMERS (RPOs)
  o Research DATA INFRASTRUCTURES (RDIs)

• Matrices are complementary and share a common structure
  o Six ACTION AREAS
  o Three PROGRESSION STEPS
  o Additional guidance for FURTHER ADVANCEMENT AND ALIGNMENT
THE SIX ACTION AREAS

1) Organisational engagement and commitment
2) Policy environment
3) Financial aspects
4) Training
5) Technical preparedness
6) Communication and awareness raising

• Common across all organisation types, though with different emphasis within each type, e.g. Financial Aspects
  o RFOs - relates to funding of and investment in RDM and RDIs
  o RPOs - access to RDM funding for the RPO and how the funding is used to support data sharing and interoperability
  o RDIs - development and implementation of business models for sustainable funding streams
## PROGRESSION STEPS

<table>
<thead>
<tr>
<th>Plans to develop</th>
<th>Development ongoing</th>
<th>Development on organisational level</th>
<th>Further advancement and alignment</th>
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<tr>
<td>Acknowledged need to take action in a given area and plans on how to proceed developing or developed</td>
<td>Groundwork completed in a given area to achieve sustainability of research data, though more refinement is needed</td>
<td>The action area now addressed at a mature level within the organisation</td>
<td>Collaboration with (inter)national partners in order to align approaches and achieve a level playing field (at a national or an international level, with different disciplines)</td>
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EXAMPLE – FUNDER’S ENGAGEMENT AND COMMITMENT

<table>
<thead>
<tr>
<th>Maturity level areas</th>
<th>Progression steps</th>
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</thead>
<tbody>
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<td><strong>Plans to develop</strong></td>
<td><strong>Development ongoing</strong></td>
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| **Organisational Engagement and Commitment** | • RFO takes first steps towards considering RDM issues and defining where it needs to act.  
• RFO determines the scope of its activities, including looking to others for guidance and best practices. | • RFO sees effective RDM as part of its strategic objectives and develops a comprehensive strategy to include policy, funding, technical infrastructure, and training as appropriate.  
• RFO ensures that RDM objectives are developed within the context of related organisations. | • RFO has an RDM strategy.  
• RFO actively engages in RDM issues, including financial support for policy implementation, training, and, where appropriate, the provision of infrastructure for long-term data preservation.  
• RFO is in dialogue and collaboration with related RFOs, RPOs, and RDIs at (inter)national level to advance practical RDM issues. | • RFO seeks alignment on RDM policies and practices amongst RFOs, RPOs, and RDIs at (inter)national level.  
• RFO engages in dialogue and collaboration at (inter)national level for policy, training, provision of RDI and so on.  
• RFO helps to provide a level playing field at (inter)national level. |
HOW SHOULD MATRICES BE USED?

• Within an organisation to assess current position and help identify potential ‘next steps’
  o Helps the organisation to develop its ‘agenda for research data’
• Between organisations to help foster collaboration, align approaches and develop shared understanding and responsibility
  o As level of maturity advances the level of inter-organisational collaboration is expected to increase
• There is no one ‘right answer’
  o Interpretation and application will vary depending on organisational policies and needs and/or external factors
  o Organisations will need to identify what level to achieve in any given area – don’t have to reach same level in each area and some actions might not be within the scope of the organisation’s mission or mandate
ACKNOWLEDGEMENTS

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