Task Force Open Science:
Research Data Management at CESAER Universities

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STM Webinar, 19 May 2020
CESAER is the strong and united voice of universities of science and technology in Europe

→ over 50 leading S&T Universities
→ members educate over 1 million students & employ over 88,000 academic staff
Task Force Open Science

→ 23 institutions represented

Two subgroups working on:

Research Data Management + Open Access

Aim
To compare RDM activities with a special focus on engineering disciplines and the challenges faced when providing suitable RDM support services, training & infrastructure

Target group
- All CESAER member institutions
- Persons/team responsible for RDM support and services
- One answer per institution
Survey

Structure

- Policy & Organization
- Infrastructure & Tools
- Support services & Training

Responses

- 21 institutions participated
- 13 countries represented
RDM policies in place in 66.7% of institutions and is work in progress for several institutions.

Significant variations in structure but most address the essential issues for RDM: FAIR Data, Reproducibility, Data Preservation, Data Sharing, DMPs, Openness.

Policies also clarify the responsibilities regarding researchers, institutions, faculty, and others.
Challenges

- Policies are often generic and the lack of Discipline/Faculty-specific guidelines hinder compliance.

- Relevant topics for S&T universities such as IPR & data ownership and dealing with Research Software are rarely mentioned.

- Far too few institutional incentives for researchers to make them comply with research data policies.
An important number of universities offer **Data storage** (66.7%) and Data repositories/archives (52.4%)

More than half offer RDM tools. For example:

- **DMP Tools** (66.7%)
- **HPC** (61.9%)
- **Version Control Tools** (57.1%)

Less than half also offer:

- **Jupyter Notebooks** (33.3%)
- **ELNs** (28.6%)
Challenges

- Large size of the data produced/collected within technical/engineering as a main challenge for Storage and Data archiving/publishing
- Lack metadata standards/documentation hinder findability and re-use of the data stored and/or preserved
- Only few universities providing tools specific for technical/engineering disciplines
81% have a dedicated team of RDM Support involving more than one administrative office, but mostly Library staff and IT-managers.

90% believe that industrial collaboration is ‘relevant’ or ‘very relevant’ for the researchers.

81% offer RDM training regularly and only 42.9% offer training tailored to technical/engineering disciplines.
Challenges

Most difficult RDM topics to address are DMPs, Documentation, Legal and Technical issues as well as Software

When collaborating with industry:

- Data publication is a major issue in contrast to funder and journals requirements
- Archiving research data after the end of a project
- RDM workflows are not part of collaboration agreements
Challenges

RDM trainings are provided regularly at most universities.

- When providing training tailored to technical/engineering disciplines there is a lack of trainers and teaching materials with the needed discipline-specific focus
- Lack of interest from researchers
Next steps & Collaborations
What can be the next steps for institutions?

- Develop sub-policies and/or specific guidelines for discipline-specific workflows & software
- Research Data Management support and IT working together on data storage guidelines that help researchers to determine which data must be stored, for how long and where
- Work on establishing disciplines-specific support or communities within the institution, e.g. by embedding data stewards within faculties or research groups
What we should be working on collaboratively?

- RDM and FAIR data when collaborating with industry - CESAER TFI + TFOS in 2020
- Incentives to motivate & acknowledge researchers complying with RDM best practices - CESAER TFHR + TFOS in 2020
- Develop subject-specific trainings materials & course plans considering workflows at S&T universities
- Work closely together with research communities and/or relevant global communities on discipline-specific metadata standards & tools for implementing them, e.g. RDAinEng and RDA metadata group(s)
Thank you!

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