# Webinar 2 CESSCIO SOW

### Research Data Management



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#### CESSDA

- Legal entity owned and financed by the individual member states & represented by a national institution, a Service Provider
- Recognized as an ESFRI Landmark in the ESFRI 2016 Roadmap in the field of social and cultural innovation
- Aiming to facilitate access to social science data resources for researchers regardless of the location of researcher or data.

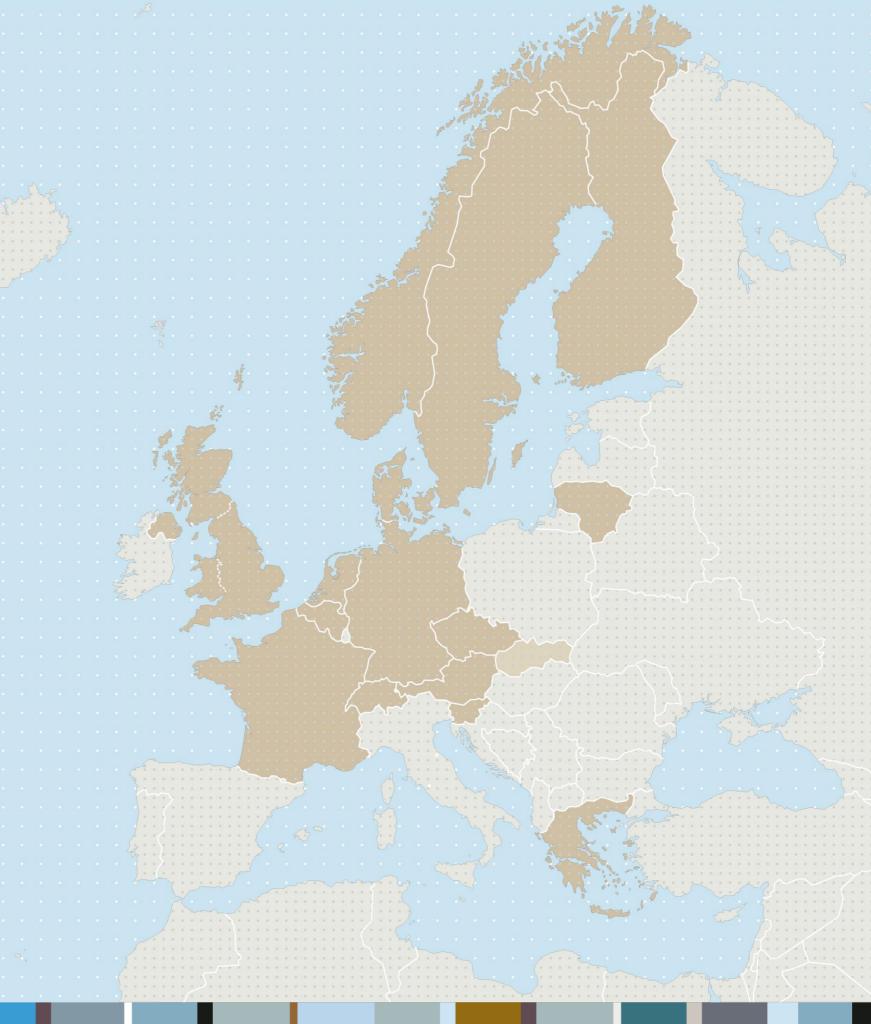


#### 15 CESSDA members

- Austria
- Belgium SOHDACzech Republic CSDADenmark DDA
- Finland FSD
- France -PROGEDO/Réseau Quetelet
- Germany GESIS
- Greece So.Da.Net
- Lithuania LiDA
- · Netherlands DANS
- Norway NSD
- Slovenia ADP
- Sweden SND
- Switzerland FORS
- UK UKDS

#### 1 observer

 Slovakia - SASD (observer)





This project has received fundi research and innovation progra

### CESSDA's European project



### cessda saw

Strengthening and widening the European infrastructure for social science data archives

#### The aims are to:

- achieve full European coverage
- strengthen the network and
- to ensure sustainability of its data for the widened network.





### Slovenian Social Science Data Archives Arhiv družboslovnih podatkov (ADP)



http://www.fdv.uni-lj.si/

- Established in 1997
- Member of CESSDA since 1998, national SP
- National repository for social sciences
- Supporting RDM in Slovenia



#### Content

- Definition(s) of RDM and DMP
- Benefits and Advantages of RDM
- Research Data Life-Cycle
- Structure and Components of DMP
- Stakeholders



#### Purpose of webinar

- Webinar is meant for future trainers to provide them with general information on RDM and DMP.
- Presentation contains different sources supporting RDM.
- We will share experience from seminars, workshops and discussions with various stakeholders.



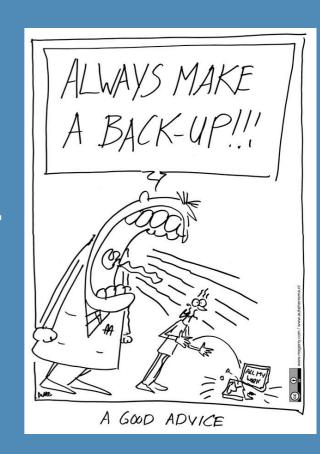
#### Target audience

- Researchers
- Students
- Librarians
- Research Offices
- Other



#### Raising awareness

- Organizing workshops
- Organizing webinars
- Preparing RDM materials: guides, tools...
- Promoting webinars, workshops
- Organizing round tables, conferences, discussions...



#### Poll

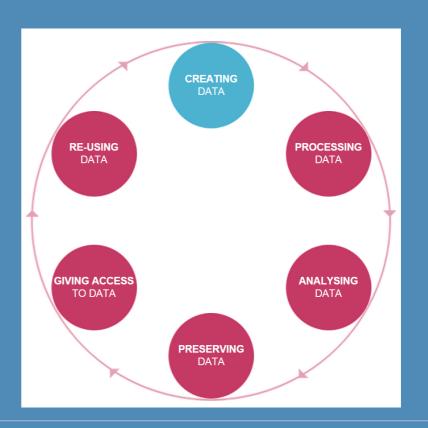
Put yourself in the shoes of researchers in your country. Which is the most important **reason to share** research data:

- Funders requirement
- Scientific journal requirements
- Principles of scientific research culture of sharing
- Collaboration with other researches raising impact of your work



#### Definition of Research Data Management

 Data management covers all aspects of handling, organizing, documenting and enhancing research data. (UKDA)



UKDA

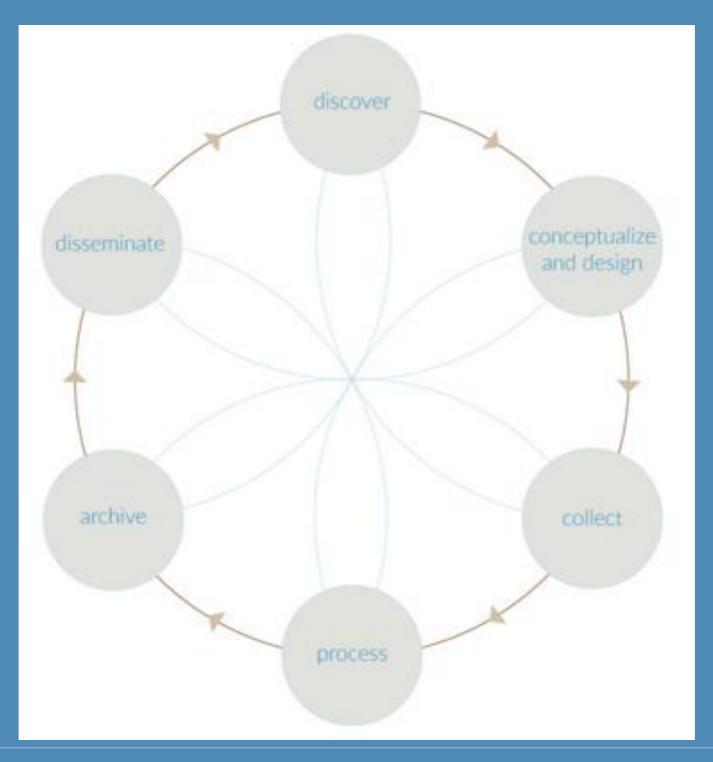




#### Definition of RDM

 Research data management entails that data and related metadata are created, preserved and organized in a manner which ensures that data remain accessible and reliable, and data protection and security are maintained over the whole data life cycle. (FSD)

### Research Data Life-Cycle



**CESSDA** 

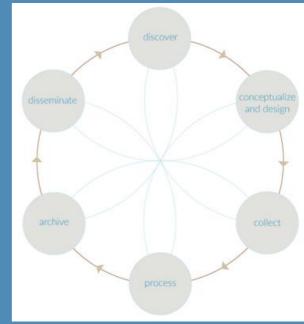




#### Research Data Life-Cycle

• For the effective management of data, planning starts when research is being designed and should consider both how data will be managed during the research and how they will be shared

afterwards. (UKDS)







### Benefits and Advantages of RDM

- It is a vital step in your research process that you cannot afford to skip.
- It helps you ensure your research data are accurate, complete, reliable, and secure both during and after you complete your research. (MANTRA)







#### Benefits and Advantages of RDM

- Good data management is fundamental for high quality research data and research excellence.
- Well organised, well documented, preserved and shared data are invaluable to advance scientific inquiry and to increase opportunities for learning and innovation. (<u>UKDA</u>)

#### Benefits and Advantages of RDM

 It is particularly important for facilitating data sharing, ensuring the sustainability and accessibility of data in the long-term, and allowing data to be re-used for future science. (UKDS)

> "Good data habits from the moment you start planning your research"



https://www.ukdataservice.ac.uk/manage-data



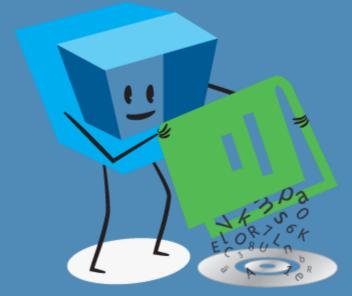


#### Definition of Data Management Planning

 A data management plan is a formal document you develop at the start of your research project which outlines all aspects of your data (i.e., what you will do with your data during and after your research project. (MANTRA)

### Definition(s) of DMP

 A data management plan describes how research data are collected or created, how data are used and stored during research and how made accessible for others after the research has been completed. (FSD)



http://www.fsd.uta.fi/aineistonhallinta/en/





### Definition(s) of DMP

 A research data management plan describes strategies for the collection, storage, validation, security, preservation, and sharing of data where possible, throughout the data lifecycle. (CESSDA)







#### Definition(s) of DMP

- The purpose of the Data Management Plan (DMP) is to provide an analysis of the main elements of the data management policy that will be used by the applicants with regard to all the datasets that will be generated by the project.
- The DMP is not a fixed document, but evolves during the lifespan of the project. (H2020)



#### Structure and Components of DMP

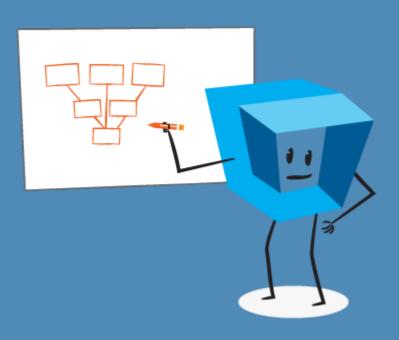
#### It must cover:

- the handling of research data during & after the project
- → what data will be collected, processed or generated
- → what methodology & standards will be applied
- > whether data will be shared / made open access & how
- → how data will be curated & preserved (H2020)



#### Structure and Components of DMP

- The data
- Rights
- Confidentiality and data security
- File formats and programs
- Documentation on data processing and content
- Life cycle
- Data management plan models (<u>FSD</u>)



#### Structure and Components of DMP

- Assessment of existing data
- Information on new data
- Quality assurance of data
- Backup and security of data
- Management and curation of data
- Difficulties in data sharing and measures to overcome these
- Consent, anonymisation and strategies to enable further re-use of data
- Copyright and Intellectual Property ownership
- Responsibilities (<u>UKDS</u> for ESRC researchers)





#### DMP checklists

- UKDS data management checklist can point you to key matters to consider in a data management and sharing plan.
- DCC <u>list of questions and guidance</u> that researchers may find useful when writing data management and sharing plans

#### UKDS DM checklist (part)

- Do your data contain confidential or sensitive information? If so, have you discussed data sharing with the respondents from whom you collected the data?
- Are you gaining (written) consent from respondents to share data beyond your research?
- Do you need to anonymise data, e.g. to remove identifying information or personal data, during research or in preparation for sharing?



#### DM & DMP Tools

- Check on national, institutional level
- Check with funder
- DMPonline at DCC
- DCC form



WRITE and SHARE CO-WRITING EXPORTING





#### Stakeholders

 It is crucial that roles and responsibilities are assigned and not simply presumed. For collaborative research, assigning roles and responsibilities across partners is important. (UKDA)



#### Stakeholders

- Principal investigators designing research
- Research staff or students collecting, creating, processing and analysing data
- External contractors with a role in data collection, collation or processing, e.g. transcribers
- Support staff managing and administering research
- Institutional IT services providing data storage, security and back-up services
- External data centres or archives who facilitate data sharing (<u>UKDA</u>)



#### POLL

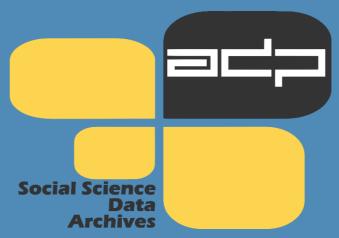
Is there a data sharing policy in your county referring to open data?

- Yes
- Mature level of development
- Beginning of development
- No



### Funder supporting RDM

 Manages national/disciplinary policies which require the preparation of DMPs as part of the research project application process, based on the principles of open access to research data financed by public funds, perceived as being a public good. (ADP)





### Research institution supporting RDM

- Assures and manages internal open access policies and designs procedures to help research projects with the preparation and implementation of DMPs.
- Manages expert training for researchers and support staff.
- Provides infrastructure in the form of technological and advisory services to provide digital preservation for data throughout the lifecycle (research offices, libraries, operating data centre and service networks).
- Provides common services and tools to support research groups. (ADP)





### Library supporting RDM

- Provides information about the availability of existing data sources.
- Provides information about options to deposit data in a data centre or data archive.
- Helps select an appropriate or recommended data centre or data archive.
- Provides information about open access conditions and advantages.
- Supports preparation of formal DMPs.
- Provides support with preparation of basic study metadata and documentation, authors' rights, and explains other deposition requirements. (ADP)





### Data Center supporting RDM

- Offers support with data management planning and preparation of data for open access
- Evaluates the importance of research data for science and their long-term usability
- Adopts an acknowledged digital curation approach
- Provides access to data and enables searching and browsing through standard data descriptions for the purposes of discovery (ADP)



#### What should RDM training cover

- Set the floor (about data sharing)
- Research data (definition)
- DMP and RDM
- Available infrastructure and services
- Hands-on on DMP and RDM

#### RDM training for doctoral students

- Introduction to Open Science, Open Access and Open Data
- Research Data Management Planning
- Legal and ethical issues
- Research Data Lifecycle: role of Data Services in a Data Lifecycle
- Preparing data and documentation for digital curation (DDI, metadata, managing data file)
- Deposit data to data centre / Repository
- Have enough hands-on session. 3 5 days





#### RDM training for researchers

- Broader EU context of open access in research
- Slovenian research data policy
- Introduction to RDM from the international perspective
- Data management planning
- Hands-on: how to use RDM tool
- Managing and sharing research data: consent, confidentiality and disclosure
- Hands-on: development of a general consent form
- 4-8 hours





#### RDM training for librarians

- Open Access in European Union research activities
- Introduction to Research Data Management (remote video-lecture from DCC team)
- Data Librarian Experience (Stuart Macdonald, Edinburgh University)
- The Role of Librarians in the Categorisation and Classification of Scientific Data Publications
- Development of Research Data Policy and RDM Planning in Slovenia
- Data Users and Data Depositors
- Bibliography of researchers and evaluation of research work according to the methodology of the Slovenian Research Agency
- Role of the 'OSICD' in evaluation of research work and cooperation with librarians (bibliographers)
- 4 8 hours
- Request from librarians provide concrete guidance and a lot of materials





### RDM training for "institution"

- Short 1-1,5 hour
- Reserve at least 0,5 hour for discussion / consultation
- Tailor-made discipline specific (quali / quanti)
- Different stakeholders are likely to attend (vicedean for research, researchers, head of research center, research office, librarian etc.)



#### What else can trainer do?

#### Supporting researchers:

- to develop RDM training materials
- to translate RDM tools
- to develop a general consent form in your language and tailored for your discipline

#### Support for librarians:

- to develop disciplinary specific informational material for librarians (economy, psychology, political science ...)
- to inform them regularly about novelties in archives

#### Support for decision makers:

- active engagement in preparing research data policy on national level
- preparing policies and infrastructure on institutional level (Universities)
- preparing data sharing policies and citation standard with journal editors





### Training material

Štebe Janez, Sonja Bezjak, Irena Vipavc Brvar: Preparing research data for open access: guide for data producers (2015)

**URN:NBN:SI:DOC-G0DPXMZ** 







#### In short

- Introduction to RDM training
- Relevant sources (in these slides and hand-out)
- Content and type of training depends audience (shown by examples)









## cessda saw thanks!

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For more information on cessda training including webinars:

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