

Interview guide: Research data management e-infrastructure: researchers' needs and experiences.

Instructions to the interviewer on the procedure are listed as "Instruction" in parentheses.

1. Introduce the project: approx. 5 min

(Instruction: start recording and inform the participant clearly of this).

Thank you for participating in this interview! You make a difference by contributing your story.

My name is/our names are...

The aim of the project is to map how researchers work with research data today and what their needs are. The goal is to develop the best possible support for you so that you can focus on your research. To structure the discussion, we use a simplified model of working with research data based on the phases of planning, data collection, analysis, accessibility/sharing, preservation, and reporting. We look specifically at capabilities, a broad concept that describes processes, information resources, competences, regulations, IT support services, etc. in relation to the e-infrastructures used by the research. Quite simply, all the support services that are needed to be able to manage research data well through all phases of a research activity.

We also place special emphasis on investigating what e-infrastructure is needed to manage research data well. E-infrastructure is usually not something you think about in your daily work until it is not available or does not work. But you need it for your work as a researcher. (Instruction: show figure 1 below to illustrate and concretize different forms of e-infrastructures for research data. Feel free to replace logos with others relevant to your own university). Please keep this image in mind throughout the interview as it represents the environment you as a researcher must relate to and move in during your everyday work.

2. Introduce the interview: about 5 min

Today's interview goes like this:

- We will start from a research activity that is relevant for you, perhaps a current or recently completed project. It is usually easier to talk about a specific case. If you come up with comments of a more general kind, these are also very welcome!
- (Instruction: Introducing the map with capabilities, figure 2 below. Tell them that we should not talk about all abilities and repeat that the map is a model, i.e. a simplification of what reality looks like, and that it is needed for us – researchers, support functions and decision-makers – to speak the same language and develop the right support).
- (Instruction: show the image of the map without completed abilities, Interview form.pdf). In the rest of the interview, we only talk from the wheel with the different phases of a research

project drawn. You can tell us how you work with the data at the different stages, but you don't have to stick to them strictly.

- One of us will briefly note what you tell us on the picture with the wheel. Then we check that you think we have caught what you said and can correct if necessary.
- At the end, we will ask you to indicate which figure you would choose to represent your overall satisfaction for each of the phases: happy for good, neutral for well, frowning for dissatisfied. We know from experience that it can feel uncomfortable to mark a lot with "dissatisfied", and therefore want to ask you to be as honest as you can.
- We record the audio during the interview, and it will be transcribed, after which the recording will be erased. What is analyzed is the transcription of the interview and the notes we take during the interview.
- Do you have any questions about this before we get started?

3. The questions: the remaining time of the interview is about 35-50 minutes.

Question 1: Can you briefly tell us about your research with focus on the data you collect or generate? (Instructions: no need to take notes for Question 1).

Now let's move on to talking around a specific project that stands out to you. I show the picture with the wheel and my colleague will take notes, you will see the text in the meantime. The focus is on the data management throughout the project you are thinking of: before, during and after the project.

You are welcome to talk completely freely, based on what comes to mind. We have a few themes that we want to cover during the interview, and may ask some specific questions to capture everything.

Question 2: When you see this picture of a project's phases, can you describe what you do with data during the different phases, one at a time? (For the planning phase, how you reasoned about how to handle data before collecting or generating them)

Plan - Create/collect – Analyze – Make available – Preserve – Report

For each phase:

- How do you feel it worked?
- Did you experience any issues?
 - If yes, what did you do?
- To whom did you turn for support? da

For each phase, check that they tell you about the following, ask supplementary questions if necessary:

- What do you do with the data during this phase?
- What tools, software, or services do you use?
- What do you store and where do you store?
- Do you turn to a support function at the university?
- Were there costs for your research project?

(Instruction: It is particularly interesting to understand how the researcher perceives the interfaces between tools and infrastructures, e.g. when transferring data from their own storage to an external service – whether this is possible or not – so pay particular attention to such transitions and potential gaps).

4. Conclusion

Now we are approaching the end of the interview. We look at the picture of the notes of what you have said: Is there anything you want to change in what we have developed here together?

We now want you to add one of the three smileys to describe where you were satisfied, where you have no opinion, or where you were dissatisfied or feeling annoyed – one for each phase. Would you like to give a brief justification of your choices so that we can more clearly see what infrastructure needs to be developed?



Finally, describe your dream scenario! It can be big or small things.

Is there anything you'd like to add before we end the interview?

You are very welcome to contact us if you come up with anything afterwards.

Many thanks for your participation!

Figure 1



Level 4: Research data services

People and information

- Online guides for research data management
- Support and advice for research data management (User office)



Level 3: Research data management

Tools for working with research data

- Tools for managing (active) data, e.g. processing, analysing, sharing, collaborating, visualising



Level 2: Research data creation & processing

Research infrastructure

- Data creation and generation
- Data processing
- Data transfer
- Governance of research infrastructure at LU



Level 1: IT infrastructure

- Data storage
- Backup
- Network

Figure 1 illustrates different forms of e-infrastructures for research data. Feel free to insert logos for relevant support from your own institution in the spaces on the right.

Figure

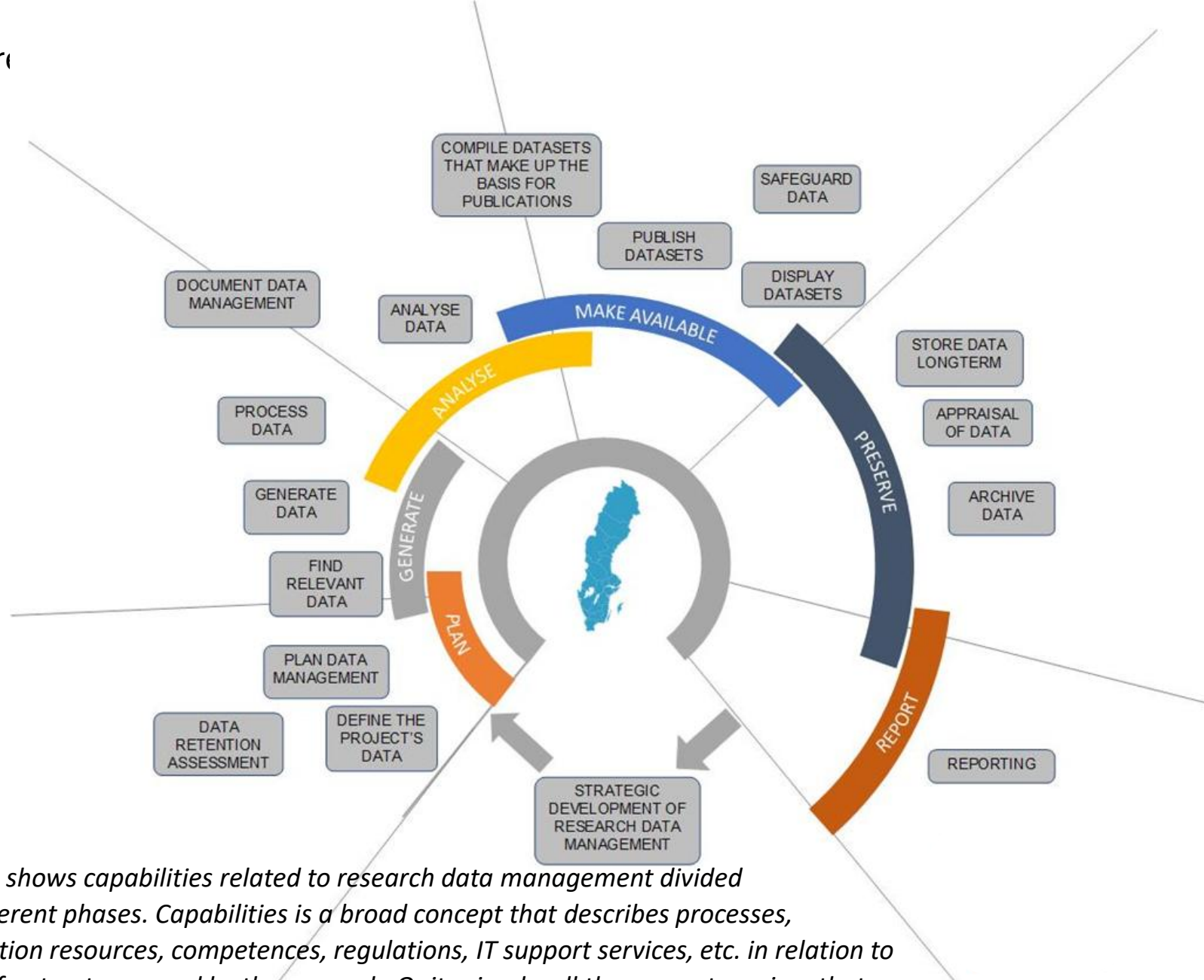


Figure 2 shows capabilities related to research data management divided into different phases. Capabilities is a broad concept that describes processes, information resources, competences, regulations, IT support services, etc. in relation to the e-infrastructures used by the research. Quite simply, all the support services that are needed to be able to manage research data well through all phases of a research activity.

Figure 3



Analyse

Make available

Dream scenario

Create/collect

Preserve

Plan

Report

