

#### Jytte Christensen

Dato: 7 October 2021 Sags nr.: 2021-0293750

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Mødedato: 27 September 2021, 09:00 – 11:00 Mødested: Teams Mødeemne: Meeting # 1, AGRO Data management committee

**Deltagere:** René Gislum, Enoch Narh Kudjordjie, Maria Knadel, Karin Dyrberg, Mette Vestergaard Odgaard, Anders Almskou-Dahlgaard, Dennis Villadsen, Margit Styrbæk Jørgensen, Poul Lassen, Jens Grønbech Hansen, Jytte Christensen **Afbud:** Christina Rønn Ingvardsen

#### Agenda:

- 1. Velkomst og præsentation af udvalgets medlemmer / alle
- 2. National strategi for data management baseret på FAIR principperne introduktion og kommissorium for udvalget, se bilag 1 / Jens
- 3. Digital Infrastructure Committee Technical Sciences introduktion og link til vores udvalg / Maria
- 4. FAIR management of data and models in AGRO internt projekt i AGRO. Intro og status / Jens
  - a. Brandslukning
  - b. Få overblik over de data vi har i instituttet
  - c. Proof of concept med sædskiftedatabasen
- 5. Status, behov og muligheder for "FAIR management of data in AGRO". Runde for alle sektioner / alle
- 6. To do liste og roadmap diskussion og konklusion / alle
- 7. AOB

## Ad 1: Velkomst og præsentation af udvalgets medlemmer

Jens welcomed all to the meeting.

The meetings are held in English and we will have four meetings per year. Ad hoc meetings can be organized.

One representative from each section is appointed and there was a short presentation round. It is possible to invite other persons to the meetings ad hoc. An intranet page is created https://agro.medarbejdere.au.dk/udvalg-i-agro/data-management-udvalg/.

# Ad 2: National strategi for data management baset on FAIR principles – introduction and mandate for the committee / Jens

Jens went through the mandate. More and more data are cross-disciplinary and collected and stored at different platforms/servers.

We have a high need for a strategy on how to make dataflow more effective e.g. via



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automatization; how to document data; support the management on research integrity etc.

A national strategy for FAIR (<u>F</u>indable, <u>A</u>ccessable, <u>I</u>nteroperable, <u>R</u>eusable) data management is launched by DeiC and FAIR data principles are requested in EU funded projects. Jens went through the national strategy.

Each representative from sections informed on how we see the weaknesses in the way we currently handle data in the department, see also point 5.

# Ad 3: Digital Infrastructure Committee Technical Sciences – introduction and how it links to our internal work / Maria

Maria is member of the Digital Infrastructure Committee formed at faculty level https://tech.medarbejdere.au.dk/en/organisation-and-administration/councils-and-committees/digital-infrastructure-committee-technical-sciences/. It is a new area for Maria so there is a lot to catch up.

It was decided that Maria updates us with all relevant information from the Digital Infrastructure Committee e.g. as a fixed point at our agenda. She will give an introduction on HPC (High Performance Computers) facilities at a later meeting.

# Ad 4: FAIR management of data and models in AGRO – internal project in AGRO - Intro and status / Jens, Margit and Poul

An internal project on FAIR data management has started in AGRO. Poul and Margit are working on this project. At the AGRO Researcher Days 3 -4 November, Jens will present the status in the internal project.

A workshop with DeiC is organised in December to train us to work with metadata.

The internal project consists of three pillars (examples of the tasks in each pillar can be found in the enclosed presentation):

- 1. 'Put out fires': Problems that has to be solved now e.g. problems with duplicate data, full databases, securing of data.
- 2. Overview of what data we have in the department e.g. by securing metadata e.g. in relation to off-boarding of students/employees, GDPR issues.
- 3. Proof of concept as use cases e.g. long-term experiments such as the long-term crop-rotation (sædskifteforsøg)

Poul presented the user interface for the toolbox as an example on how it could be organised. All employees in AGRO can have access but login is required.



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Datasets has to be converted to SQL, but several data are not suited for SQL. In such cases where data are stored in e.g. excel or csv formats, we will make a metadata database. The format of this is not yet decided, but we hope the workshop in December with DeiC can help us here.

It was discussed what the difference is on saving data on the O-drive or in this toolbox. We have much better control with data in the toolbox.

We will follow up on the work when it is further elaborated.

# Ad 5: Status, needs and possibilities for "FAIR management of data in AGRO"/ all

Each representative can send one-page to Jens and Jytte on status, possibilities, needs and challenges from their section before 15 October.

Below is listed some of the issues that came up from the table round:

- Replace the SAS database system with another one. SAS is not accessible for all and difficult to work with.
- Problem on storing data from e.g. robots. Flakkebjerg cannot work on the servers in Aarhus. A data mirror is located at a server in Roskilde and that is the one used for calculations.
- Huge amount of data from e.g. robots, spectroscopy, soil and water samples.
- Data are not stored at the same place in the same projects. Time consuming to look into different excel files.
- Lab equipment is not connected to the AU network and data are moved around on USB-sticks.
- Data on samples are saved using different kind of id's.
- Preferable if laboratory data can be controlled and stored at the same place.
- Data from interviews and behavioural experiments are not always self-explained and there are GDPR issues. Data are stored locally with copies laying around.
- Mark Flakkebjerg stores data in ARM separate files for each trial. Data collected via electronically devices in the field is store in One-Drive and transferred to computers.
- Documentation for chemicals is stored in the chemical database in Aarhus. This gives a long response time.
- Automatically sampling from e.g. senors, met stations etc. would be good to store in SQL servers.
- Some of the equipment already connects via wi-fi and we can connect to the sensors in the field via a transparent window.
- Automatic dataflow direct to the cloud.
- Experience with controlling data in toolboxes.



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### Ad 6: To-do list and roadmap – discussion and conclusion / all

The table round showed that there is a high need for a strategy on data management in AGRO.

### **Roadmap:**

27 September: Kick-off meeting

3 -4 November: Presentation at the AGRO Researcher Days

23 November: Next meeting

December: Proof of concept - long-term crop rotation

### To-do-list:

15 October	Each section representative please	all
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	send to Jens and Jytte (max) one	
	page about status, needs and oppor-	
	tunities for FAIR management of	
	data and tools in the section	
	A draft list of recommendation from	Jens
	the Agro Data management commit-	
	tee to the leadership	
Next meet-	Working document. Based on input	
ing?	from all sections we can discuss	
	about the need for a metadata plat-	
	form and what data should be con-	
	verted to SQL (long term). Then also	
	prioritize the conversion of data into	
	new formats.	

### Ad 7: AOB

Documents regarding the committee is stored at O:\Tech\_AGRO\Stab\Referater Agro Data Management Udvalg.

Minutes from the meetings will be available at the intranet https://agro.medarbejdere.au.dk/udvalg-i-agro/data-management-udvalg/ and saved in WorkZone.