Digital Research Environment (DRE)
Enabling scientists to apply FAIR data stewardship

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Data management issues

- “Researchers loose significant **start-up-time** on organizing their data infrastructure”
- “Researchers cannot **access data** in an easy and compliant way”
- “**Collecting and monitoring** data is a major effort based on duplicate and manual tasks”
- “Researchers cannot **reproduce** their **analysis** in a structured and easy way”
- “Researchers almost always work in studies across institutions, yet **sharing** data and analysis algorithms is very hard.”
- “**Re-use** of data or **retrospective** studies often not even on the radar as it is virtually impossible to do.”
It’s all about data …

Collect & Analytics & Compliance & Sharing
Principles

• Supporting the life science community using a **federal approach**

• **Integral approach** of research and care

• **Integral data management** in a single cohesive and compliant environment

• Supporting **standards** and best practices

• **Self-service** and **unburdening** (compliance on the background)

• **Flexible** and **scalable** (also small studies with small budgets)
The DRE, collection study environments

EMR

‘Paddy Field’
Important goals

• Studies are separated in individual workspaces “paddies”
• Access control stays with the PI/owner
• Both data and analytics can be shared by allowing access to the workspace
• All workspaces are put into the catalog, access rights make up who can see what.

• Sharing data and analytics becomes technically a single click action instead of a big hassle.
• The cultural change must come from researchers, funders and publishers.
Applying fair principles

- All data and analytics is **findable** for everyone who is allowed to see it
- All data is **accessible** for everyone who is allowed to access it
- All data is as **interoperable** as feasible as result of the used standards
- All data is **annotated** for everyone who is allowed to use it

- *Data is stored FAIR by default but in the context of access rights*
Datamanagement at this moment
NFU-context: ‘Biomedical Data Sharing & Analysis in Clinical Studies’

- Work Package 4 of the NFU-program ‘Data4LifeSciences’
- Co-leadership by UMCU and Radboudumc:
  - Arnoud van der Maas (Radboudumc)
  - Harry Pijl (UMCU)
- Realizing research showcases while aiming for a future facility:
  
  A digital research infrastructure for Life Sciences
Timeline

- 2015 Q1 tender
- 2015 Q2 “Concurentie gerichte dialogen”
- 2015 Q4 tentative vendor consortia selection (Vancis, Aridhia, Mgrid)
- 2016 Q1 PoC
- 2016 Q2 definitive selection
- 2016 Q3-4 build out the platform trough showcases incl. RU and UMCU
- 2017 Roll out RadboudUMC and beyond
In 2-5 years: “disruptive in healthcare” (Gartner Inc.)
Questions?