



Rewarding Open Science, Team Science and Collaborative Approaches



Serkan Girgin

Head of the Center of Expertise in Big
Geodata Science, ITC
University of Twente
s.girgin@utwente.nl



Connie Clare

Community Manager
4TU.ResearchData
c.e.clare@tudelft.nl

4th February 2022

Rewards and Recognition Festival

The problems

- Research data are produced during the whole research lifecycle
- Data publication and sharing happens mostly at the end
- Lacks important metadata
- **Manual data publication takes time and effort!**
- VREs facilitate research and research data production
- They are well connected to some infrastructure, e.g. code repositories
- **VREs are not connected to data repositories**



The solution

Seamless integration of VREs and data repositories

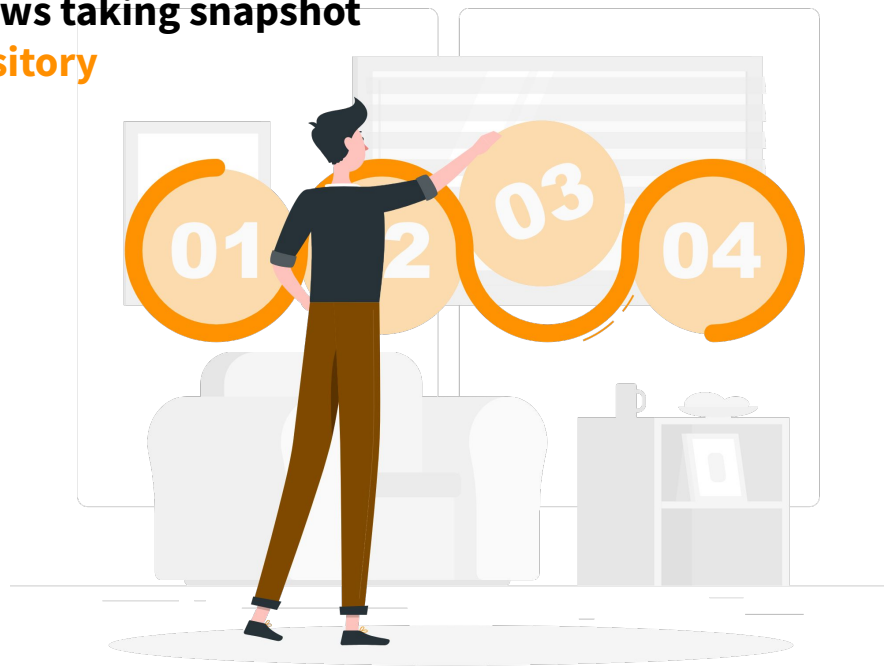
- Direct data transfer from VRE
- Less data input through forms
- Automatic metadata generation
- Onsite data quality checks
- Less time & effort for publishing
- More frequent data sharing at various stages of research lifecycle
- Improved quality of shared data



The project

Development of a **JupyterLab** extension that allows taking snapshot of research data and publishing it in a **Data Repository**

- A methodology to integrate VREs to research data repositories
- **JupyterFAIR**: A modular and expandable open-source software that implements the methodology
- Demonstration at **4TU.ResearchData** and **ITC Geospatial Computing Platform**
- Technical and practical documentation and end-user training



Collaboration and ‘team science’

We are lowering the barrier for researchers to create FAIR data.

BUT...

Good infrastructure on its own is not enough to make research data FAIR.

We need to work with **people**
(so they use it!)



Our team

Connie Clare

Community manager

4TU.ResearchData

José Carlos Urrea Llanusa

Research Software Engineer

TU Delft Digital Competence Centre

Researchers

User community Geospatial
Computing Platform (GCP)
& 4TU.ResearchData

Data Supporters

4TU.ResearchData
technical team, data
stewards & other orgs!

Serkan Girgin

Assistant Professor

U/Twente ITC CRIB

Manuel Garcia

Research Software Engineer

TU Delft Digital Competence
Center



Why is **community** so important?

- **System design & analysis**
 - Methodology driven by *the user needs* for *reuse* and *reproducibility* by various communities.
- **System deployment & test-driven development**
 - Receive direct *user feedback*, *correct problems* and *improve features* from the onset!
- **Dissemination**
 - Provide *user documentation*, *tutorials*, *training workshops*, and *blogs* to *educate*, support *widespread use* and *long-term sustainability*.

Community will continue the project after funding ends!



The road ahead...

Community building...

Collaboration...

Team science...

It's a challenge!

BUT...

It's the way forward for Open Science!



Thank you for your attention!



Suggestions for Research Proposals

- Do not underestimate community building activities in your proposals!
- Involve the community as early as possible!
- Partner with institutions which can support the initiative once the project ends!
- Lobby for funding after the end of the project to support the community activities!

