



# The Science Mesh and it's core applications

Holger Angenent



## Science Mesh in a Nutshell

# CS3: community of practice since 2014

- File Sync & Share services operated by...
  - Research labs, NRENs, Universities, companies,...
  - 130+ organisations, 30+ service nodes, 25 countries
  - > 400K users, >16 PB data, >3.5 billion objects
- User environments, higher level applications
  - editors, data analysis, metadata, transfer...



http://www.cs3community.org







- Science Mesh global collaboration platform for researchers
  - Integrating (open) data and (open-source) tools
  - Provided as building block for European Open Science Cloud (EOSC)
- Open, bottom-up approach
  - Applications: working closely with users communities we take existing best practices, services and technologies, improve them and open up for other scientific communities







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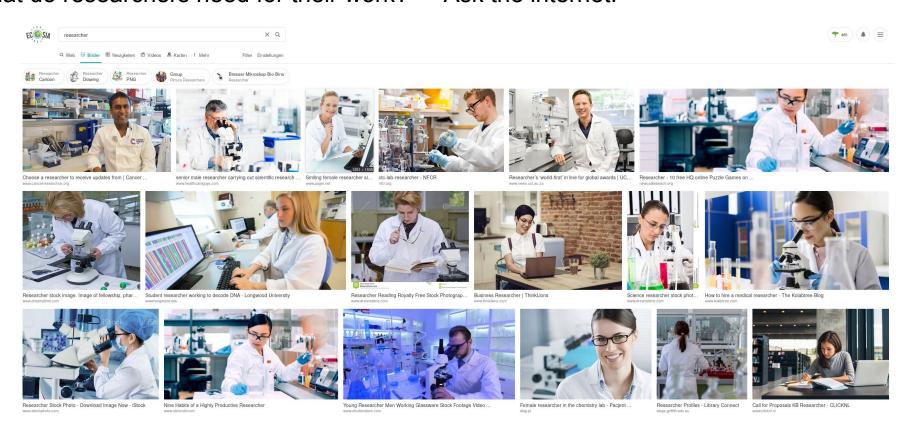


Timothy Shimwell ASTRON/SURF Associate scientist at The Netherlands Institute for Radio Astronomy





#### What do researchers need for their work? -> Ask the internet:

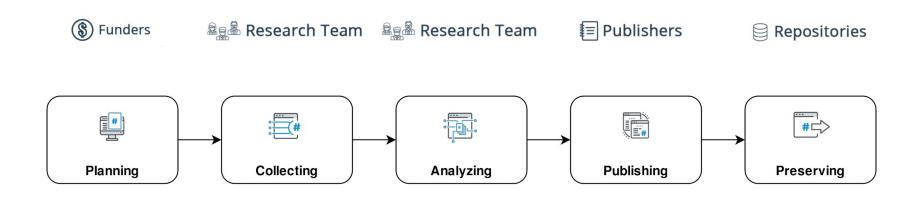


Everybody needs lab coats and microscopes...





### What do researchers need for data management?

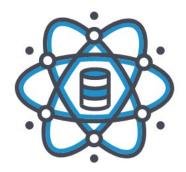








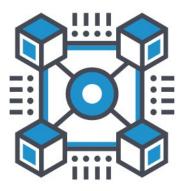
### THE SCIENCE MESH DATA SERVICES



#### **Data Science Environments**

To facilitate collaborative research and enable cross-federation sharing of computational tools, algorithms and resources.

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#### **Open Data Systems**

To add **metadata** and publish datasets with **persistent identifiers** directly on the **Science Mesh** sites or to external data **repositories**.

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#### **On-demand Data Transfers**

To allow efficient data-based collaboration on on-demand basis.

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#### **Collaborative Documents**

To be able to **simultaneously edit documents** in **safe**, **EU-based**, cloud
environments.

Read more

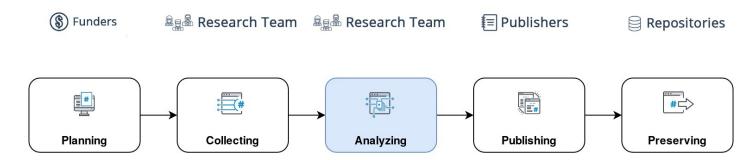


## **Collaborative Documents**



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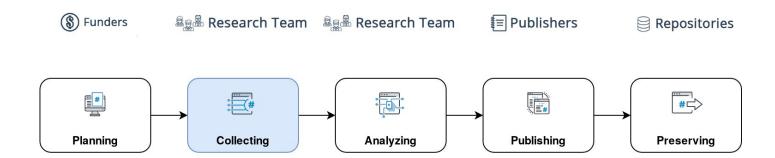


# **Large Data Transfers**



#### **On-demand Data Transfers**

To allow efficient data-based collaboration on on-demand basis.







Let's listen to the researchers



- Finalize integration in WebUI
  - Nextcloud implementation is currently under construction
  - OwnCloud (10) support will follow closely afterwards
- Roll out services in first systems
- Get feedback from users





# Thank you! Discover more on...

- cs3mesh4eosc.eu
- in company/cs3mesh4eosc
- CS3org
- CS3MESH4EOSC Project
  https://www.youtube.com/channel/UCHKcZEkMqXjCvc3MLFiFxbw