Full presentation: https://www.doi.org/10.5281/zenodo.4671456



EUROPEANPI ATEOBSERVINGSYSTEM **EPOS**-Netherlands science data in the Netherlands

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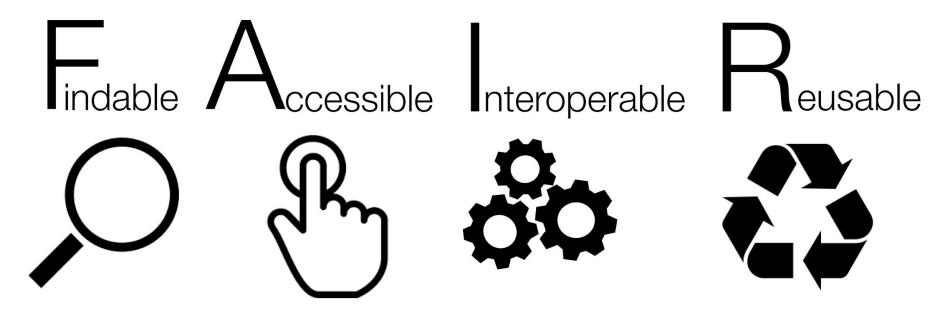




S - **I**: How to publish earth



FAIR data- what is it?



Note: FAIR does not necessarily mean open- "As open as possible, as closed as necessary"

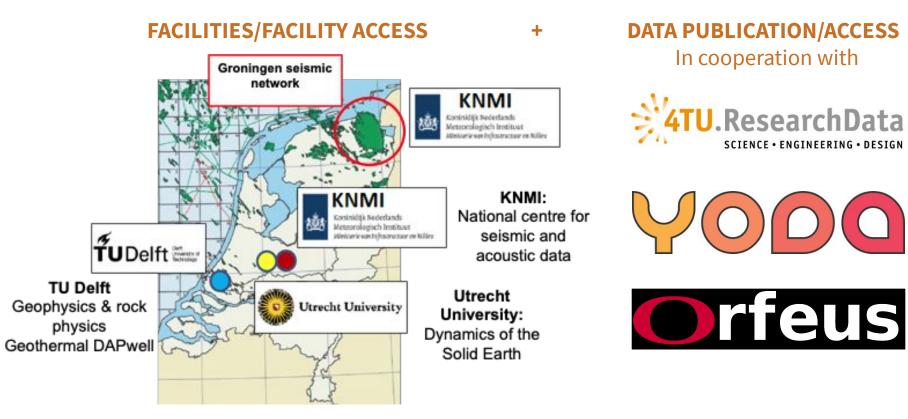
Image: <u>https://nl.wikipedia.org/wiki/FAIR-principes#/media/Bestand:FAIR_data_principles.jpg</u>, <u>CC-BY-SA 4.0</u> The FAIR principles: Wilkinson et al. (2016), <u>https://doi.org/10.1038/sdata.2016.18</u>

Why FAIR data matters

- Increases the **impact** and **transparency** of research
 - Significantly improved data availability, findability, visibility
 - Citation advantage- both for publications and datasets
- Improved **reproducibility** of research
- **Compliance**: increasingly required by funders, publishers and universities
 - NWO expects researchers to 'deposit research data in a trusted repository in such a way that the data are as findable, accessible, interoperable and reusable (FAIR) as possible.'
 (https://www.nwo.nl/en/research-data-management)



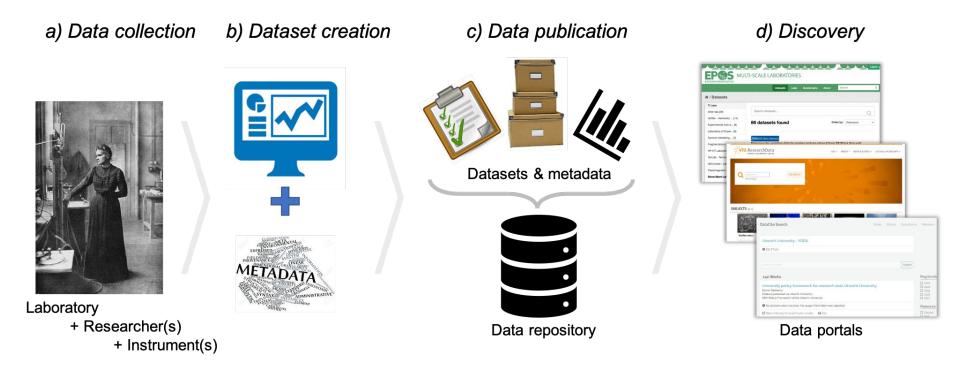
European Plate Observing System-Netherlands



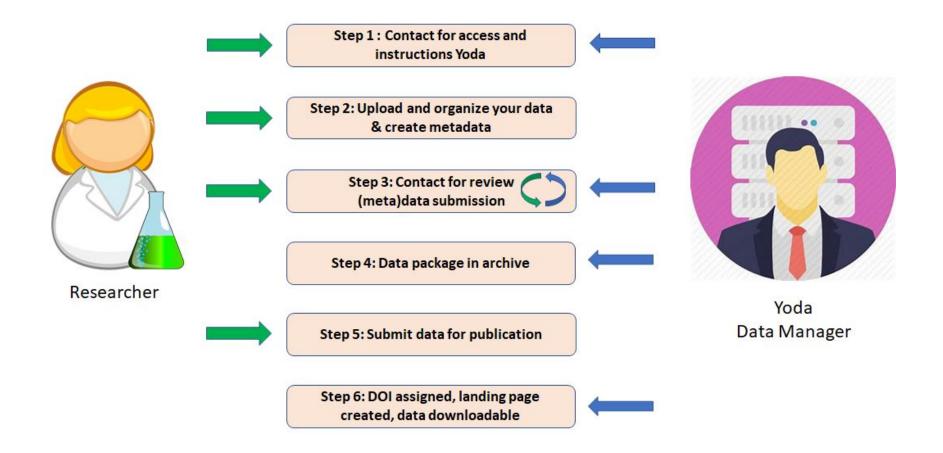
How EPOS-NL is making earth science data in the Netherlands more FAIR

- Working with **researchers** & Dutch institutional **data repositories** to facilitate the publication and description of earth science data
- Enabling the sharing of specific **datasets of interest** to the scientific community (e.g. NAM geologic model of the Groningen subsurface, <u>https://public.yoda.uu.nl/geo/UU01/1QH0MW.html</u>)
- Additional support for publishing **laboratory data** relating to experimental rock physics, crust/mantle analogue modelling, rock microstructures and microscopy

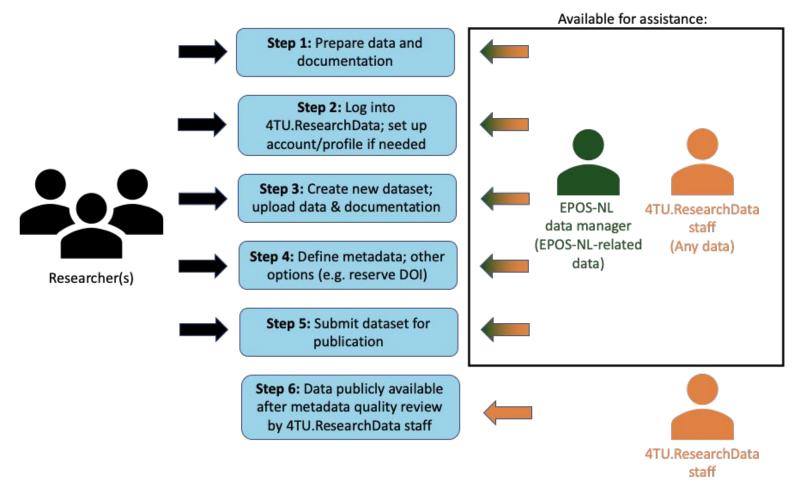
Example: publishing laboratory data



Data publication process- Yoda



Data publication process- 4TU.ResearchData



Advantages & Limitations

	YODO		
Clientele	UU (& UU-project related researchers)	Anyone	
Size	No size limit	No official size limit; PBs of data too big though	
Generic or custom metadata	'Community-specific' metadata can be allocated, generic schema by default	Custom-fields are possible, generic schema by default	
Costs	Free of charge for users	TUD/TUe/UT up to 1TB/year free. Non-partners 10GB/year free. For larger size charges apply	
Reserve DOI	Not possible before publication	Possible before publication (can thus be included in journal submission)	
Data structure	File structure can be created during upload	File structure needs to be created prior to upload	

How to discover published datasets?

- Laboratory data: EPOS Multi-Scale Laboratories catalogue, <u>https://epos-msl.uu.nl/</u>
- 4TU.ResearchData: Search via <u>https://data.4tu.nl/portal</u>
- Yoda: Search via DataCite, <u>https://search.datacite.org/rep</u> <u>ositories/delft.uu</u>

/ Labs / Experimental			
	rock		
	🚠 Datasets 🚯 About		
Experimental rock de- formation/HPT-Lab (Utrecht University, The Netherlands)	Search datasets 8 datasets found	Order b	Q y: Relevance ~
The Utrecht HPT lab The HPT or High Pressure and femperature Laboratory at Jtrecht University is one of he largest and best-known university laboratories for rock and fault read more	Compaction creep data uniaxial compact We studied the effect of pore fluid chemistry on c analogue for clean, highly porous, quartz-rich rese	ompaction creep in quartz s	and aggregates, as an

Summary



- Publishing FAIR data increases the impact, transparency, and reproducibility of research
- EPOS-NL provides access to earth science research facilities and data in the Netherlands
- Yoda and 4TU.ResearchData are data repositories that can be used to publish FAIR data, including data from EPOS-NL facilities
- EPOS-NL provides support for publishing data collected in its affiliated laboratory facilities at TU Delft and UU
- Whether your data is related to EPOS-NL or not, we hope that you will consider making use of Yoda and 4TU.ResearchData for publishing FAIR data





Useful links

EPOS-NL website: <u>https://epos-nl.nl/</u>

Data publication guide **Yoda**: <u>https://epos-nl.nl/publishing-data-with-yoda-uu/</u>

Yoda website: https://www.uu.nl/yoda

Data publication guides **4TU.ResearchData**:

- Deposit guidelines: <u>https://data.4tu.nl/info/fileadmin/user_upload/Documenten/Deposit_Guidelines_2020.pdf</u>
- Guidelines for creating a README file: <u>https://data.4tu.nl/info/fileadmin/user_upload/Documenten/Guidelines_for_creating_a_READM_E_file.pdf</u>
- Login/Profile setup/Basic navigation: <u>https://data.4tu.nl/info/en/use/getting-started/</u>
- Uploading research data: <u>https://data.4tu.nl/info/en/use/publish-cite/upload-your-data-in-our-data-repository/</u>
- After uploading your dataset: <u>https://data.4tu.nl/info/en/use/publish-cite/after-uploading/</u>
- Contact: L.S.Armstrong[at]tudelft.nl or info[at]epos-nl.nl (EPOS-NL-related help), or researchdata[at]4tu.nl (general help)

4TU.ResearchData website: <u>https://data.4tu.nl/info/en/</u>