

ARC-Finder

A simple, locally-deployed tool to find your peer's research data

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Projektmodul ZK-FDM

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CEPLAS collaborates with DataPLANT



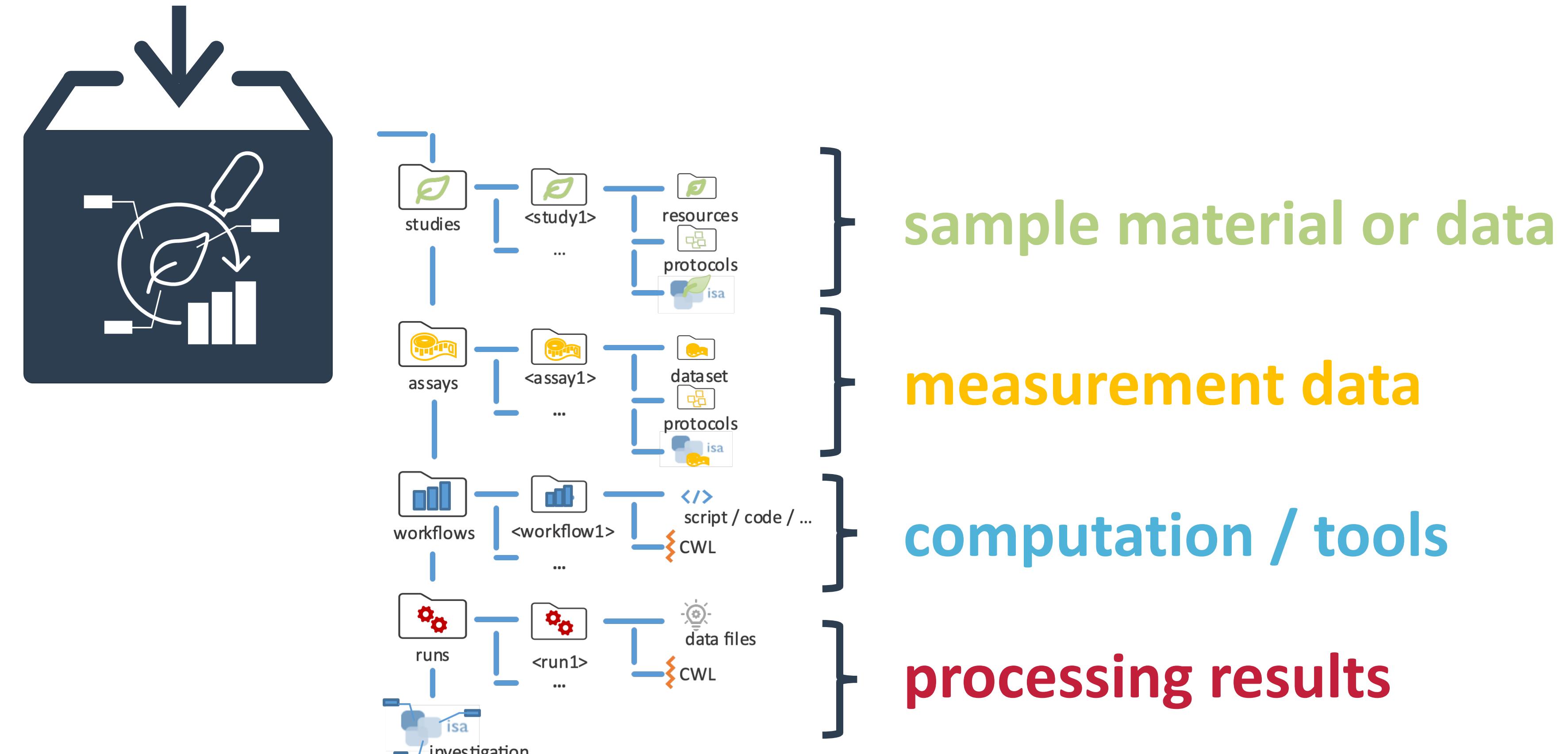
- Domain experts
- User experience

- Service provider
- Technology experts
- Semantic specialists



Bag your research in an ARC

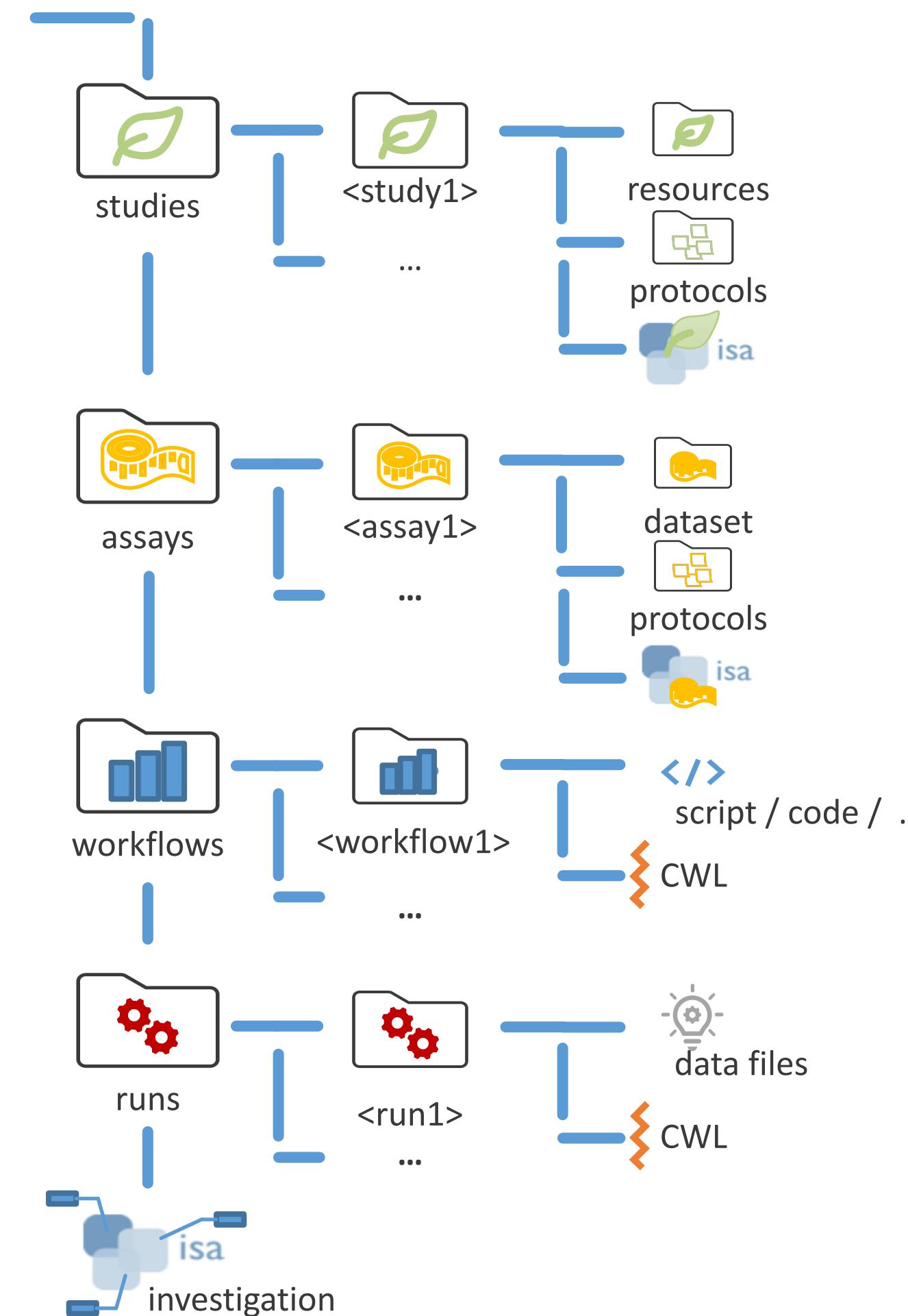
(Annotated Research Context)



<https://github.com/nfdi4plants/ARC-specification/>

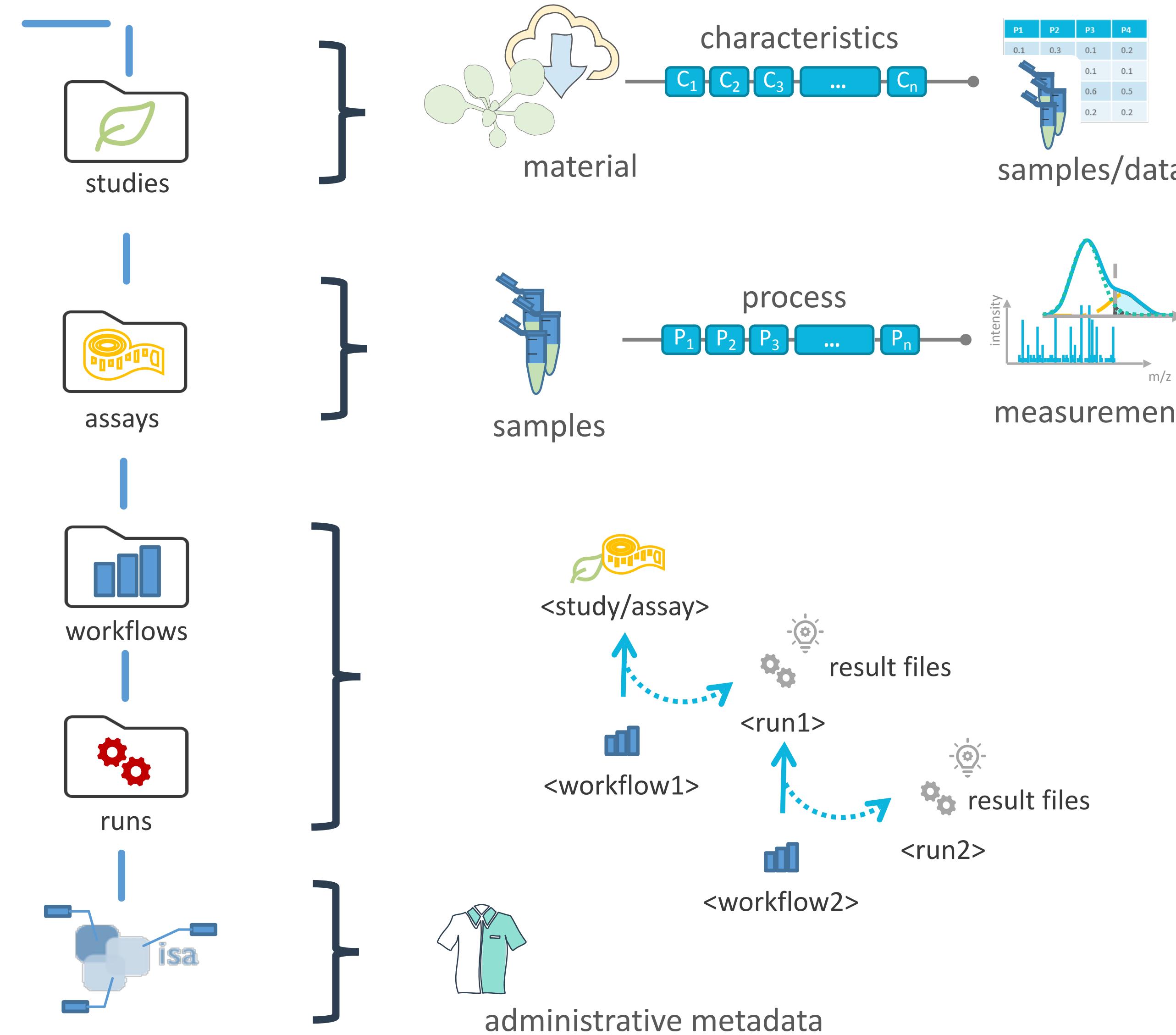


ARC builds on existing standards





A real-world ARC is a folder structure





The ISA investigation file

INVESTIGATION	
Investigation Identifier	ARCeexample_rnaseq
Investigation Title	Facultative CAM in <i>Talinum triangulare</i>
Investigation Description	Highlighting the isa.investigation.xlsx format
Investigation Submission Date	July 07, 2015
Investigation Public Release Date	Nov 05, 2015
INVESTIGATION PUBLICATIONS	
Investigation Publication PubMed ID	26530316
Investigation Publication DOI	10.1104/pp.15.01076
Investigation Publication Author List	Brilhaus, Dominik; Mettler-Altmann, Tabea ...
...	...



The DataPLANT DataHUB

DataPLANT Menu Search GitLab ? Sign in

Explore DataPLANT

Discover ARCs, groups and projects in fundamental plant research. Share your projects with others

All Most stars Trending Filter by name... Last updated ▾

Thumbnail	User / Project Name	Statistics	Last Updated
	Martin Kuhl / SampleARC_RNASeq	★ 0 ⚡ 1 🔍 0 📂 0	Updated 3 days ago
	Martin Kuhl / SampleARC_Proteomics	★ 0 ⚡ 1 🔍 0 📂 0	Updated 5 days ago
	Lukas Weil / SampleARC_RNASeq	★ 0 ⚡ 0 🔍 0 📂 0	Updated 6 days ago



DataHUB = Customized GitLab

DataHUB

The screenshot shows a search results page for 'Explore DataPLANT'. The top navigation bar includes the DataPLANT logo, a 'Menu' icon, a search bar labeled 'Search GitLab', a help icon, and a 'Sign in' button. Below the header, the title 'Explore DataPLANT' is displayed, followed by the subtitle 'Discover ARCs, groups and projects in fundamental plant research. Share your projects with others'. A filter bar at the top right allows users to 'Filter by name...' and sort by 'Last updated'. The main content area lists three projects:

Owner	Project Name	Statistics	Last Updated
Martin Kuhl	SampleARC_RNASeq	0 stars, 1 fork, 0 issues, 0 pull requests	Updated 3 days ago
Martin Kuhl	SampleARC_Proteomics	0 stars, 1 fork, 0 issues, 0 pull requests	Updated 5 days ago
Lukas Weil	SampleARC_RNASeq	0 stars, 0 forks, 0 issues, 0 pull requests	Updated 6 days ago





ARCs = Git repositories

DataHUB



git



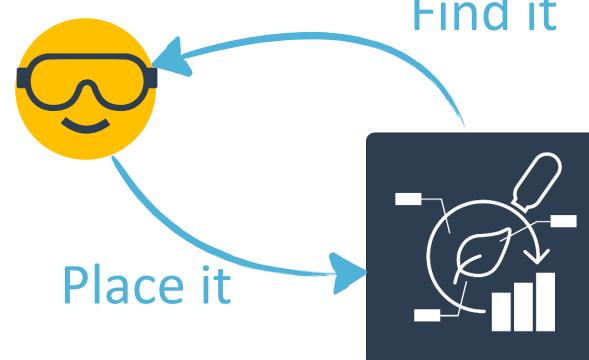
ARCs = Git repositories

DataHUB



git

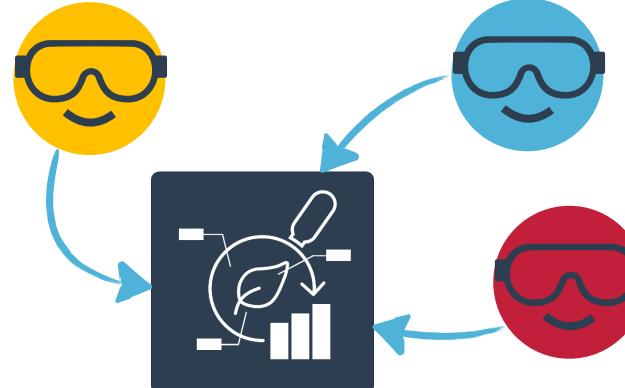
Package & Document



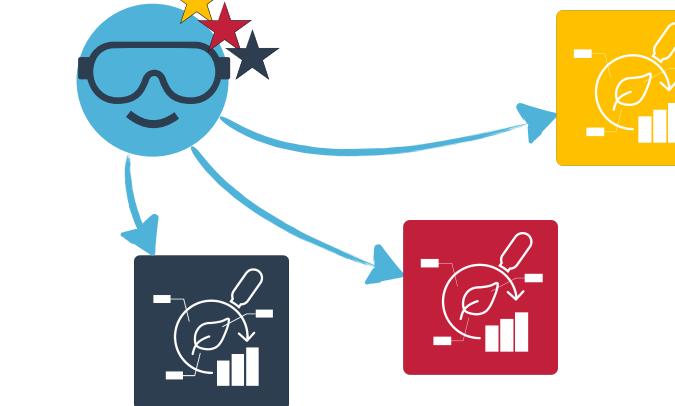
Backup & Track changes



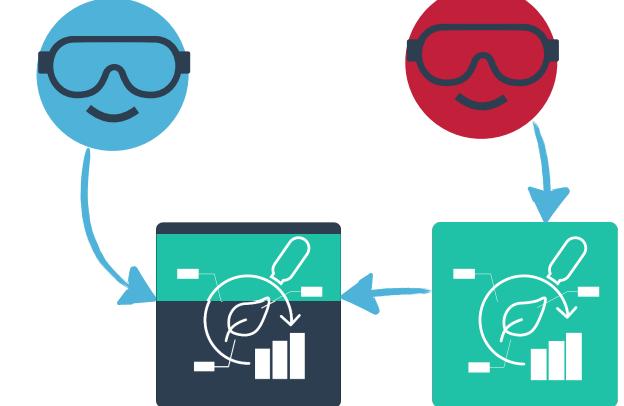
Collaborate



Contribute

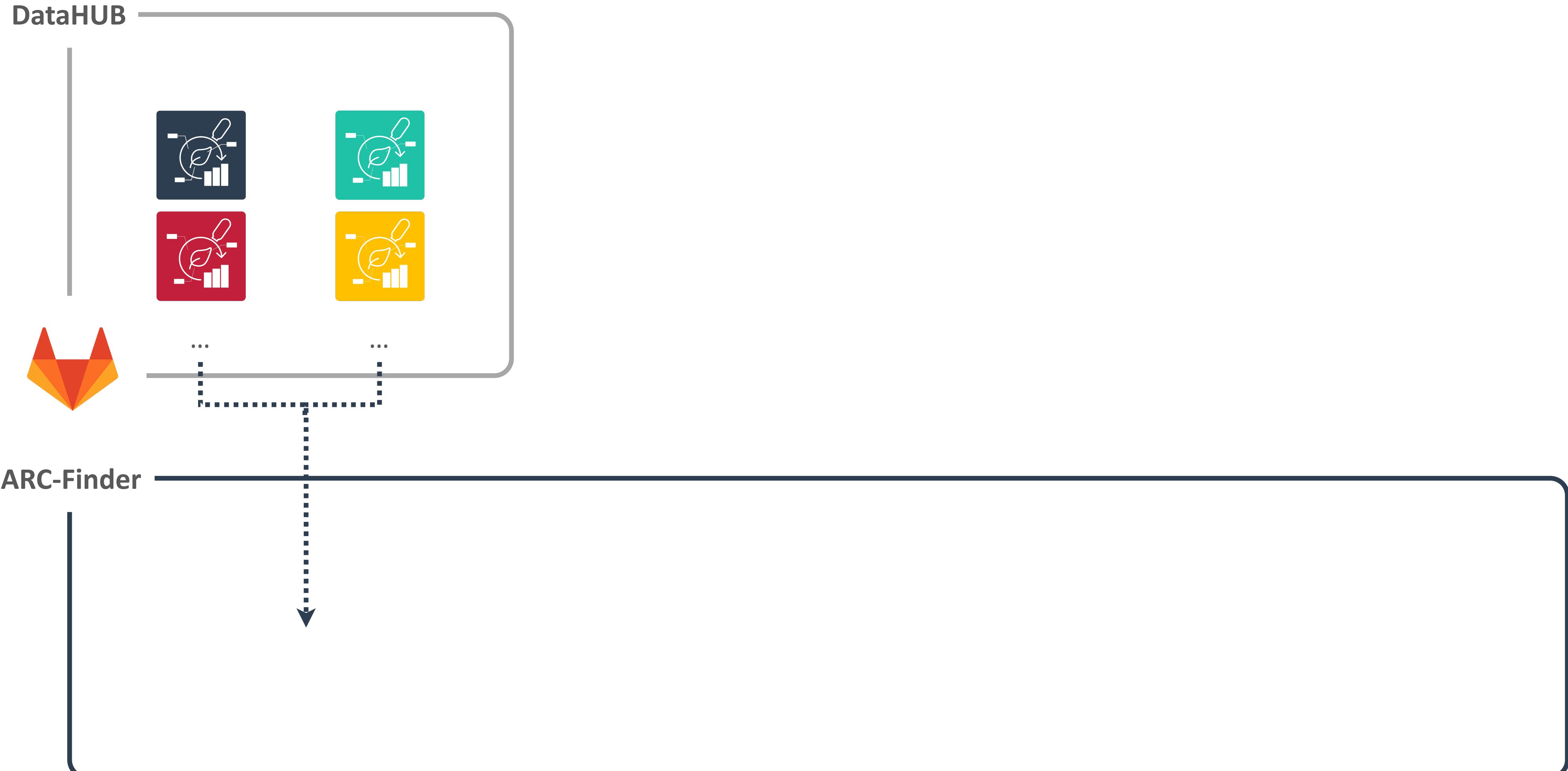


Reuse





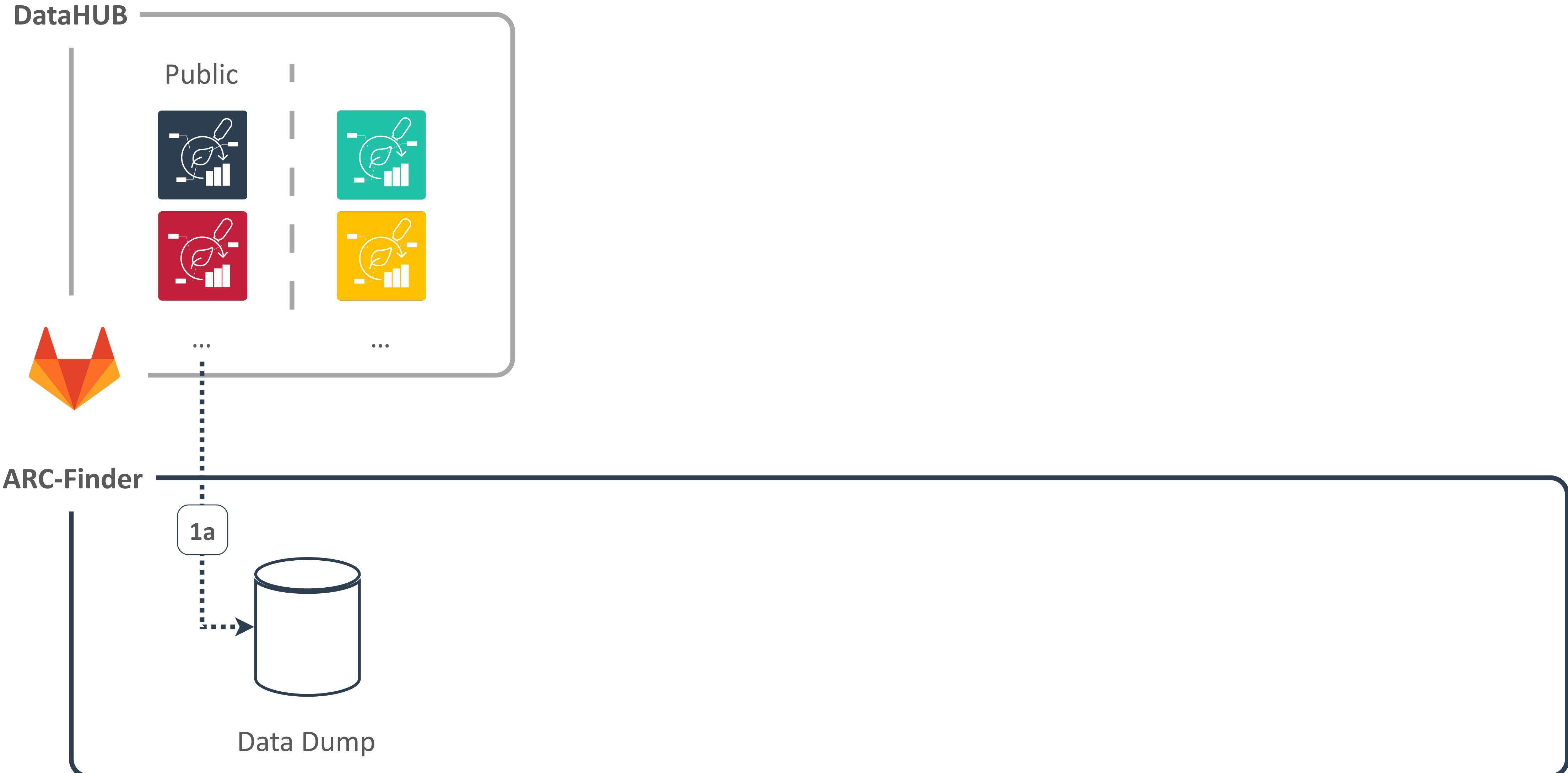
Extending the ARC environment



<https://github.com/brilator/arcFinder>



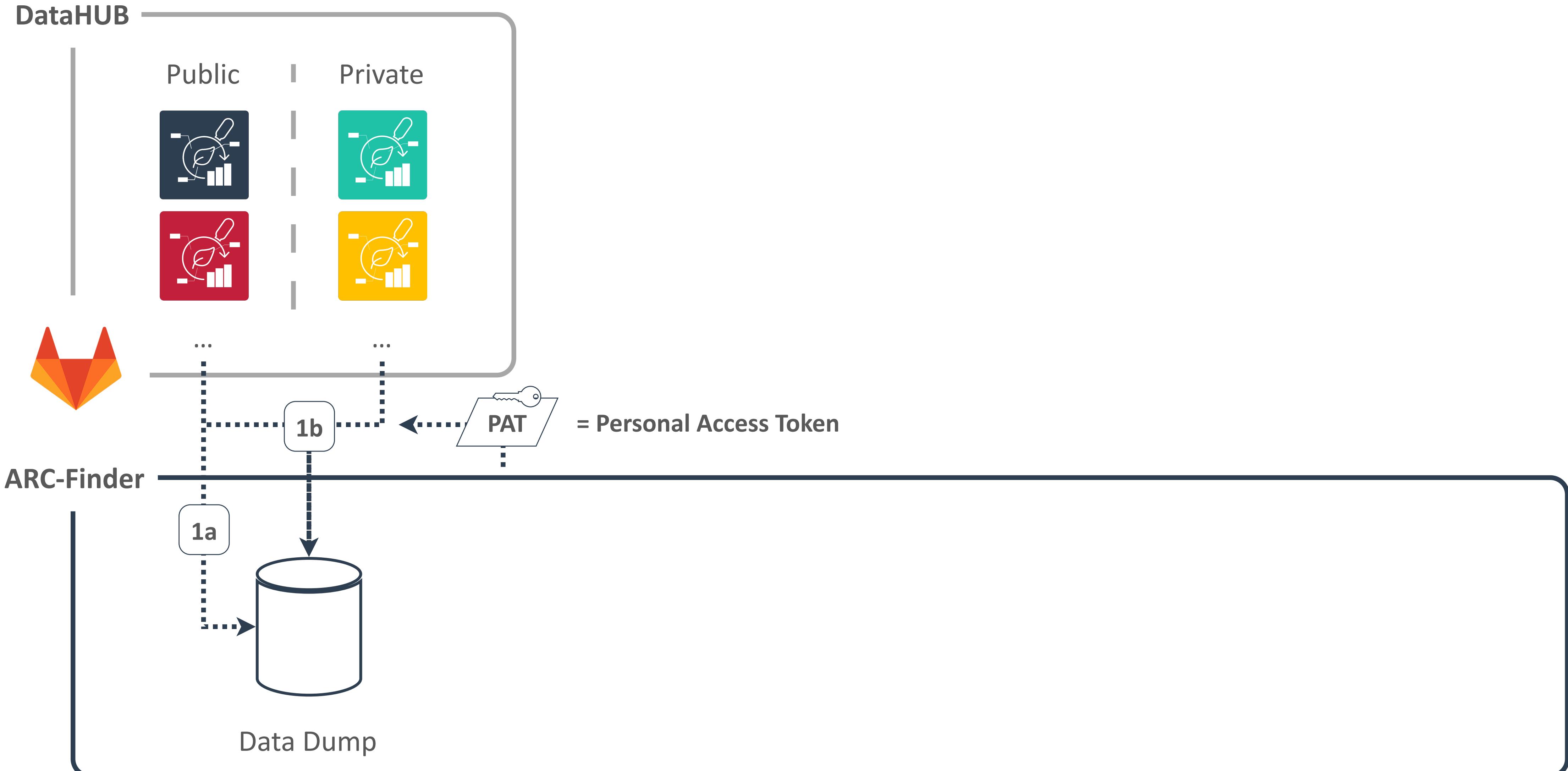
Retrieve



<https://github.com/brilator/arcFinder>



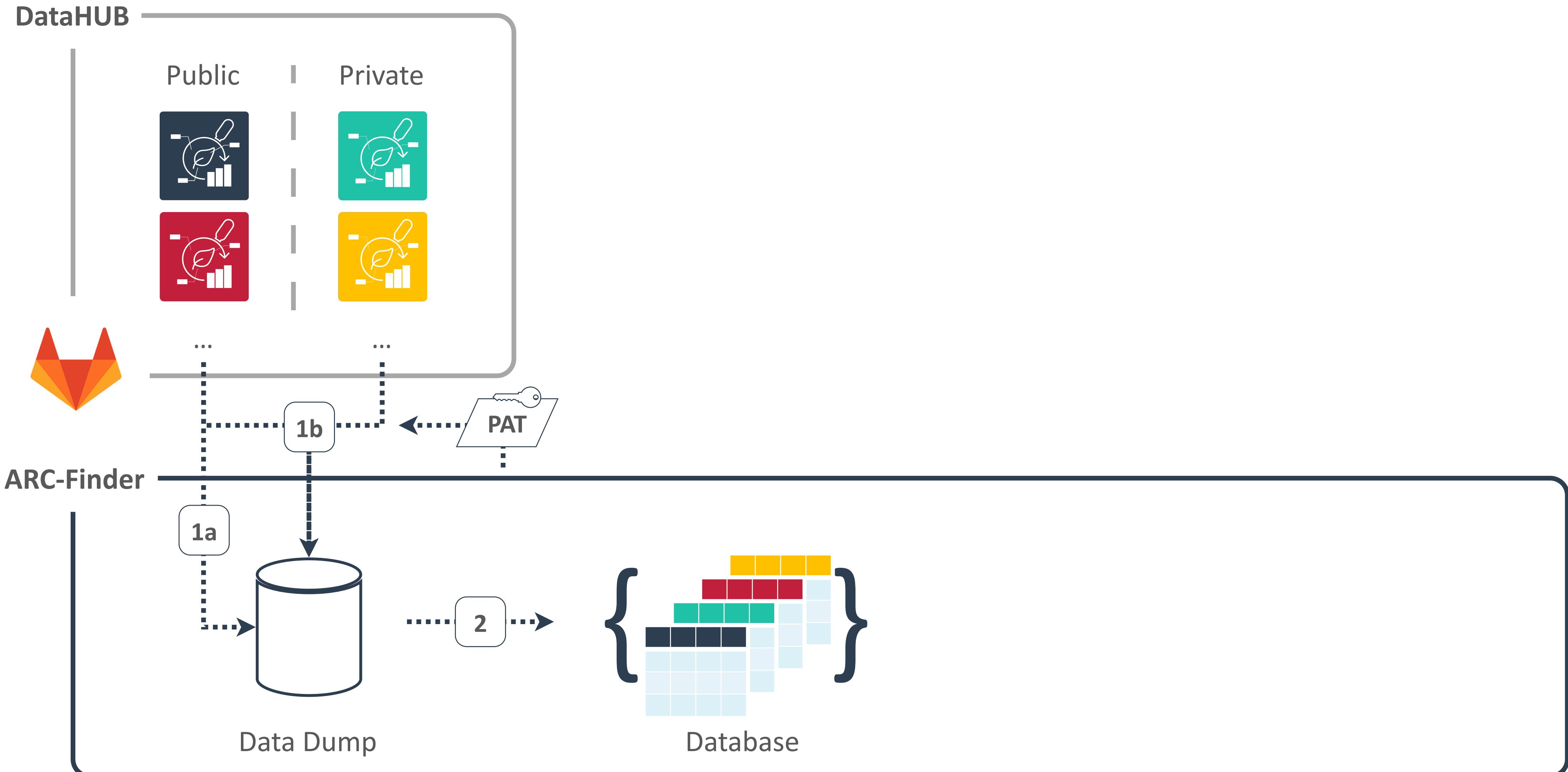
Retrieve



<https://github.com;brilator/arcFinder>



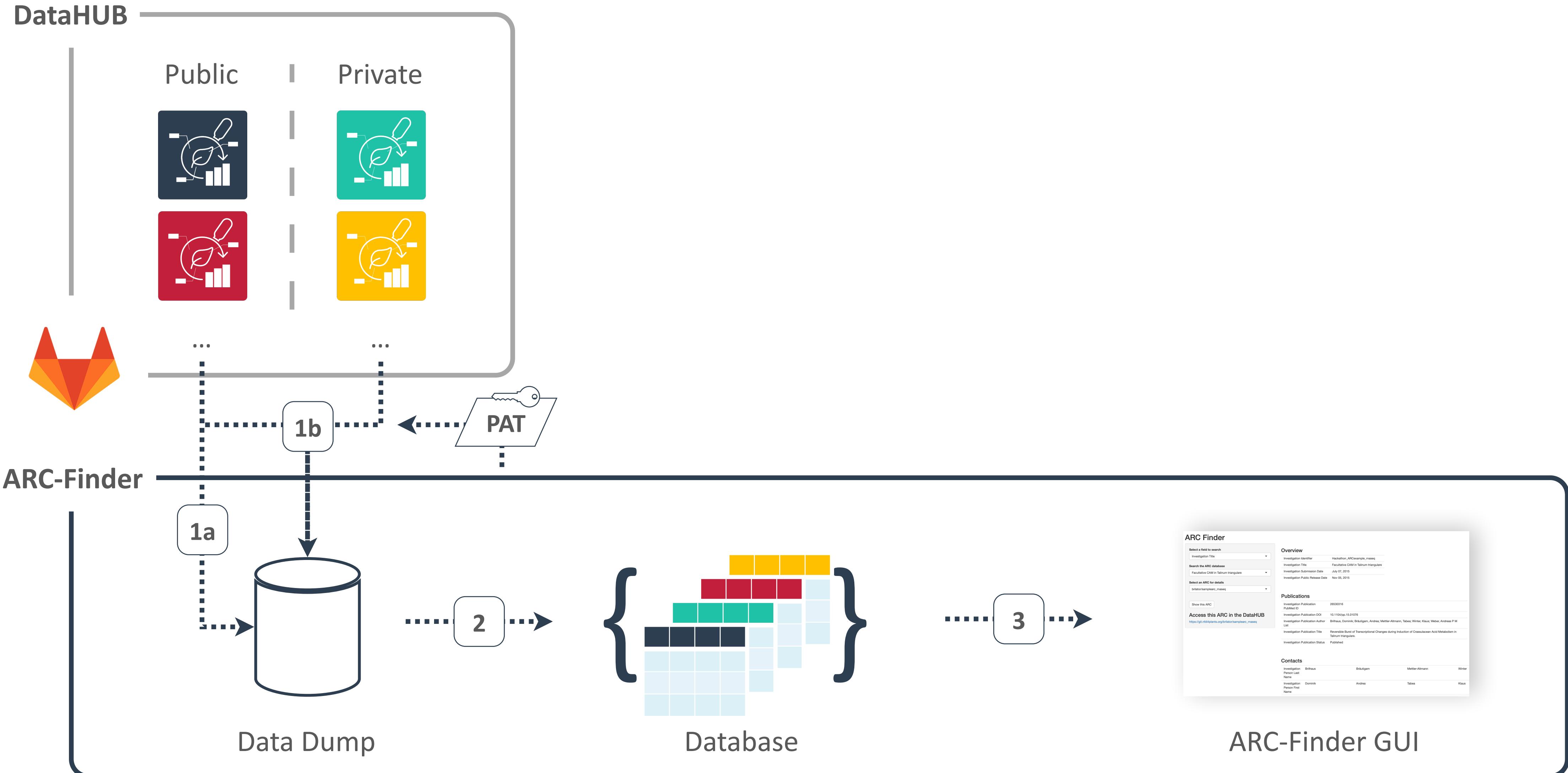
Restructure



<https://github.com;brilator/arcFinder>



Represent



<https://github.com;brilator/arcFinder>



The ARC-Finder GUI

The screenshot displays the ARC-Finder GUI interface. The top bar shows the URL 127.0.0.1. The main window is divided into two panels: the Query Panel on the left and the Result Panel on the right.

Query Panel:

- Select a field to search:** Investigation Title
- Search the ARC database:** Facultative CAM in *Talinum triangulare*
- Select an ARC for details:** brilator/samplearc_rnaseq
- Show this ARC:** (button)

Access this ARC in the DataHUB:
https://git.nfdi4plants.org/brilator/samplearc_rnaseq

Result Panel:

Overview

Investigation Identifier	Hackathon_ARCexample_rnaseq
Investigation Title	Facultative CAM in <i>Talinum triangulare</i>
Investigation Submission Date	July 07, 2015
Investigation Public Release Date	Nov 05, 2015

Publications

Investigation Publication	26530316
PubMed ID	
Investigation Publication DOI	10.1104/pp.15.01076
Investigation Publication Author List	Brilhaus, Dominik; Bräutigam, Andrea; Mettler-Altmann, Tabea; Winter, Klaus; Weber, Andreas P M
Investigation Publication Title	Reversible Burst of Transcriptional Changes during Induction of Crassulacean Acid Metabolism in <i>Talinum triangulare</i> .
Investigation Publication Status	Published

Contacts

Investigation Person Last Name	Brilhaus	Bräutigam	Mettler-Altmann	Winter
Investigation Person First Name	Dominik	Andrea	Tabea	Klaus
Investigation Person Email	dominik.brilhaus@hhu.de	NA	NA	NA

Query Panel

Result Panel



The ARC-Finder GUI

The screenshot shows the ARC-Finder GUI interface. The top bar includes standard window controls (red, yellow, green buttons, minimize, maximize, close) and the IP address "127.0.0.1".

Query Panel (Left):

- Select a field to search:** Investigation Title
- Search the ARC database:** Facultative CAM in Talinum triangulare
- Select an ARC for details:** brilator/samplearc_rnaseq
- Show this ARC:** (button)

Access this ARC in the DataHUB:
https://git.nfdi4plants.org;brilator/samplearc_rnaseq

Result Panel (Right):

Overview

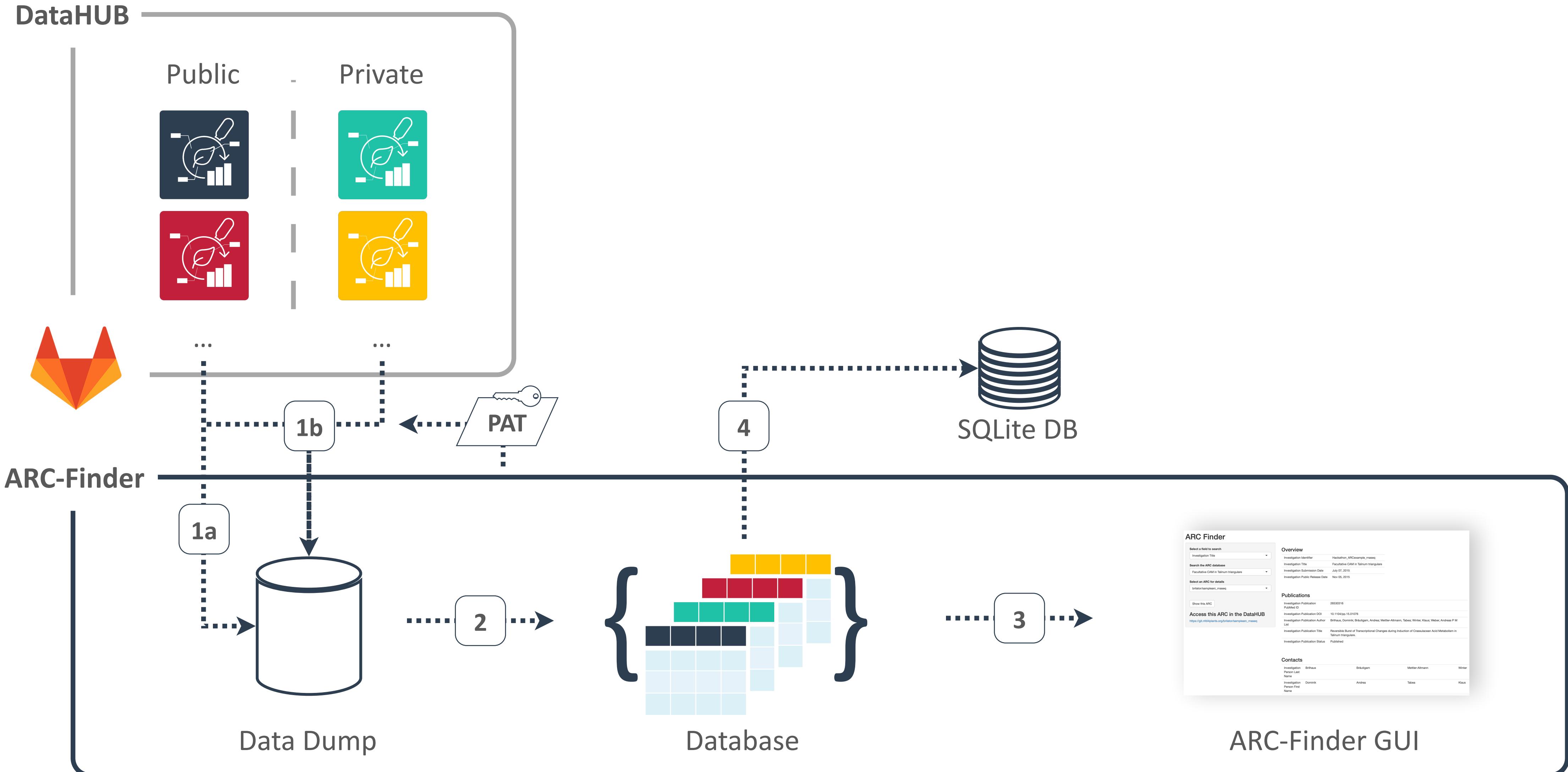
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Investigation Publication Title	Reversible Burst of Transcriptional Changes in Talinum triangulare.



Alternative: SQLite DB



<https://github.com/brilator/arcFinder>



Thanks!



nfdi4plants.de

**Timo Mühlhaus
& Group**



1st ARC Hackathon - Sept. 2021