

Ricgraph: introduction and recent developments

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- Ricgraph introduction
- Research collaborations
- Open science landscaping
- BackToPure
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- How to use
- Questions

What is Ricgraph - Research in context graph?

Ricgraph enables the exploration of

- researchers, teams, their results, collaborations, skills, ...
- and their relations
- using a graph (network)

These originate from

- various systems and multiple organizations

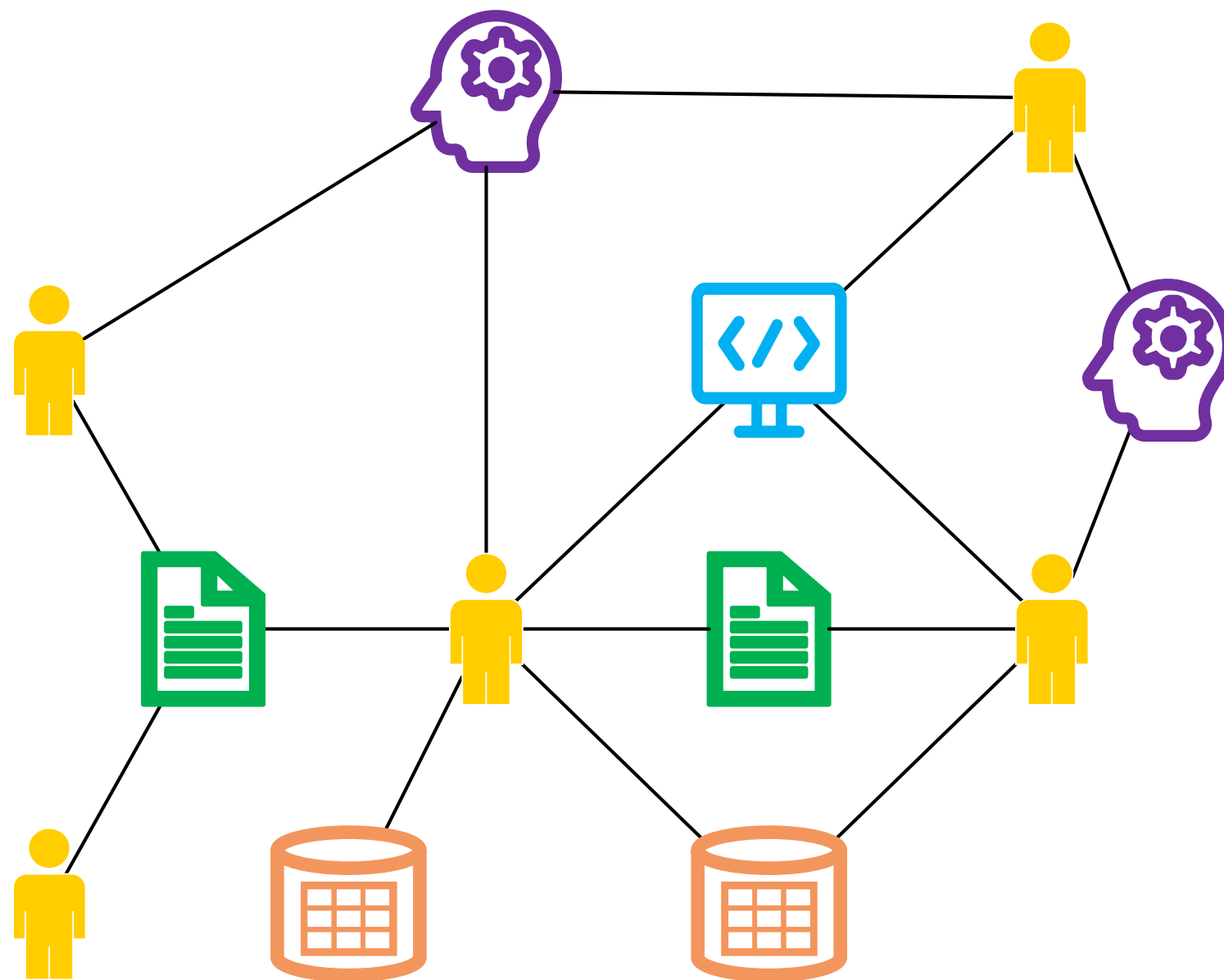
You can

- explore research information
- infer (new) relations

What if...

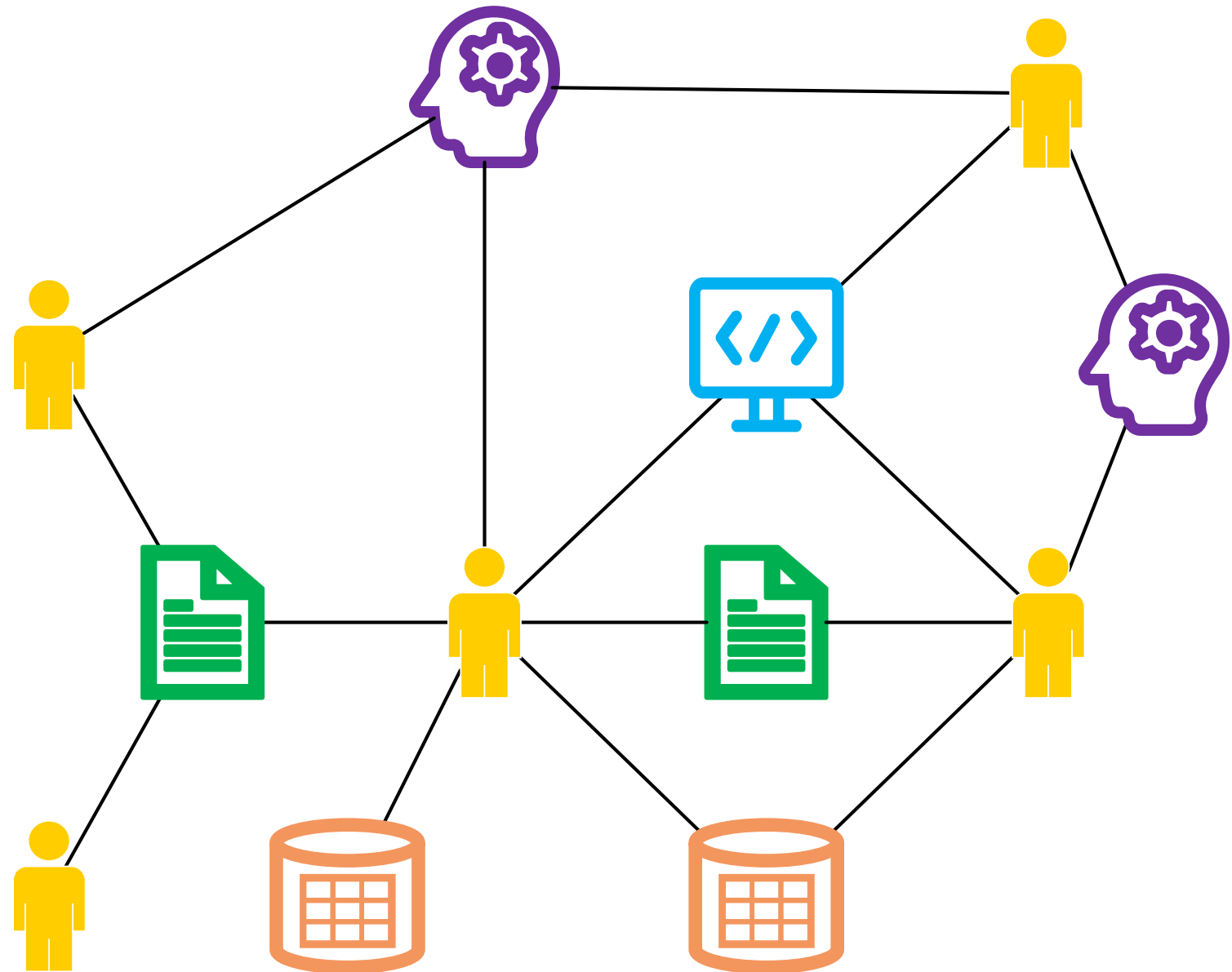
we look at research information as a network (graph)?

- We have relations between items
- Related items are neighbors
- We can “walk” from one item to another
- No duplicates



What is Ricgraph?

- many types of items in a single graph
- multiple source systems
- facilitates reasoning: infers new relations between items

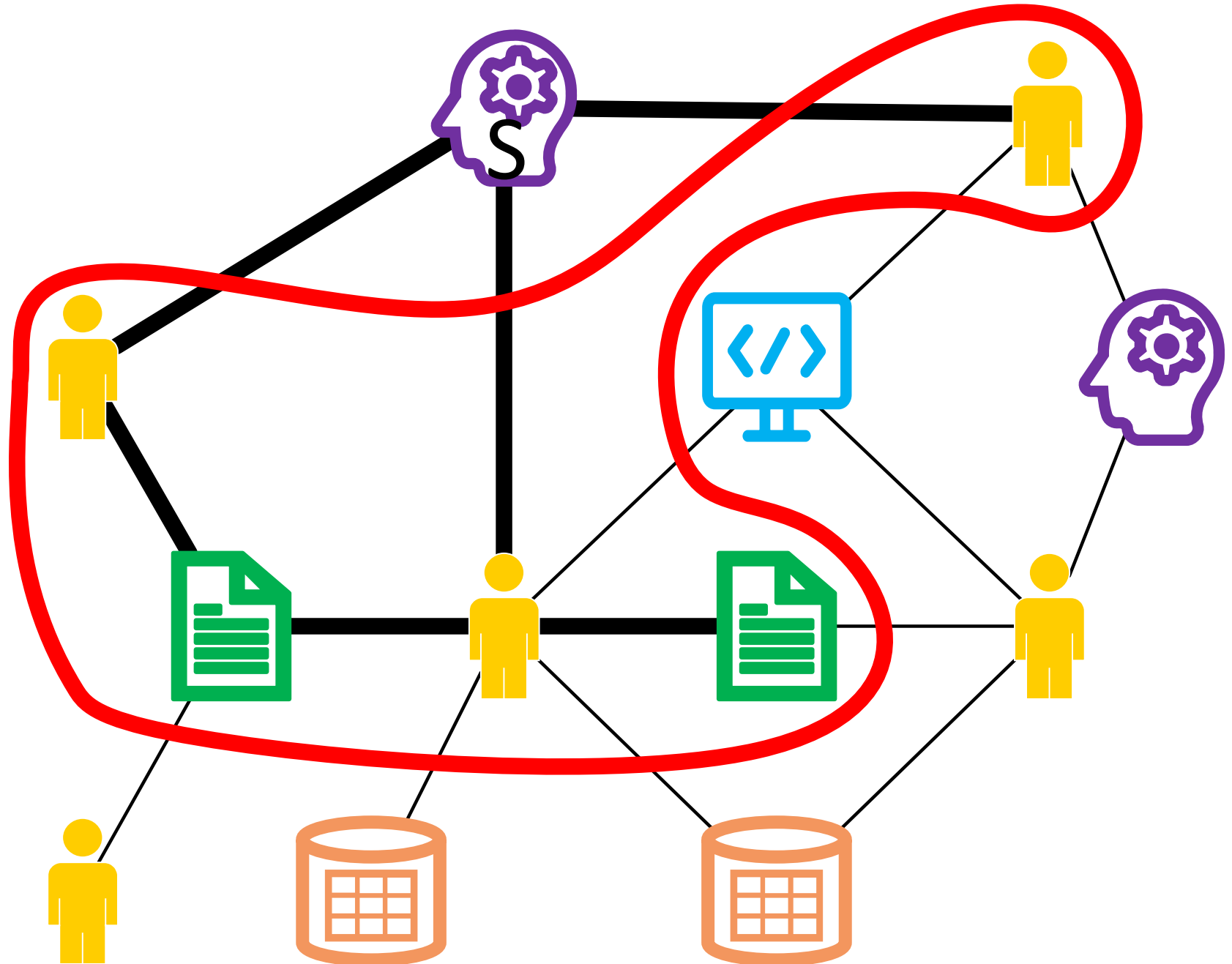


What can Ricgraph do?

Use case

As a journalist, I want to find experts with skill S and their publications, so that I can interview them for a newspaper article

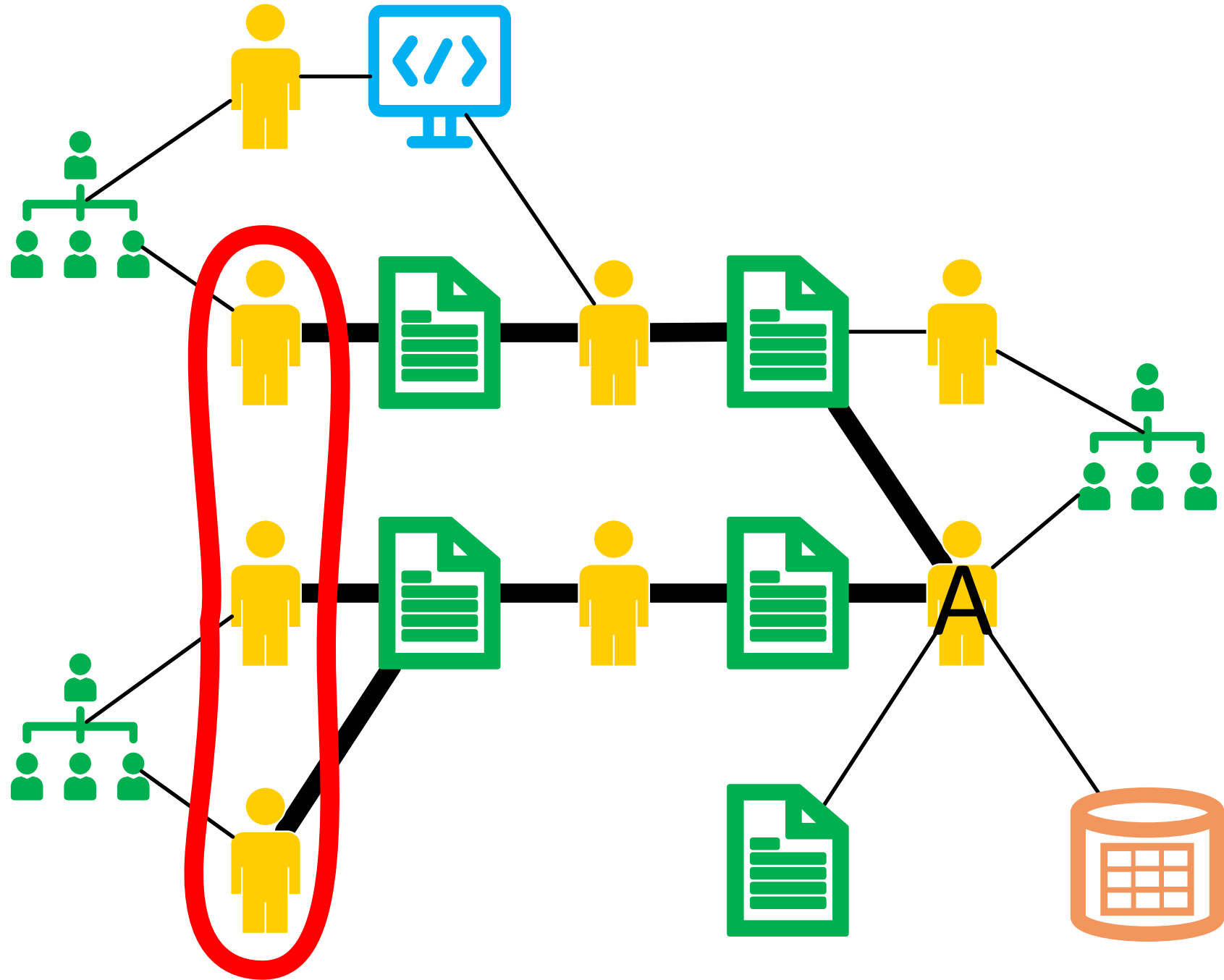
Example skill: climate change, stem cells



What can Ricgraph do?

Use case

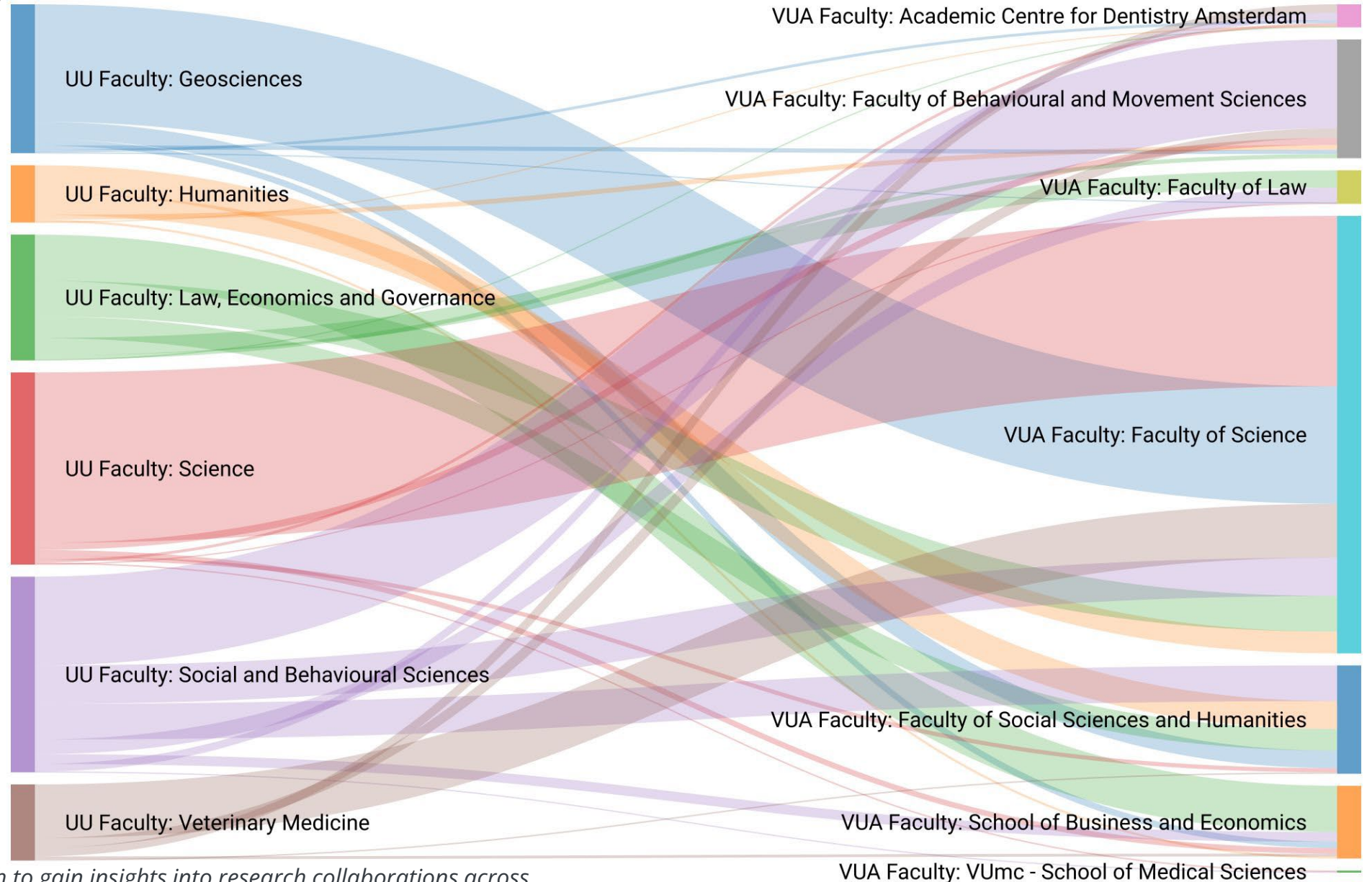
As researcher A, I want to find co-authors of my co-authors from other organizations, so that I can read their publications to find out if we share common research interests



What can Ricgraph do?

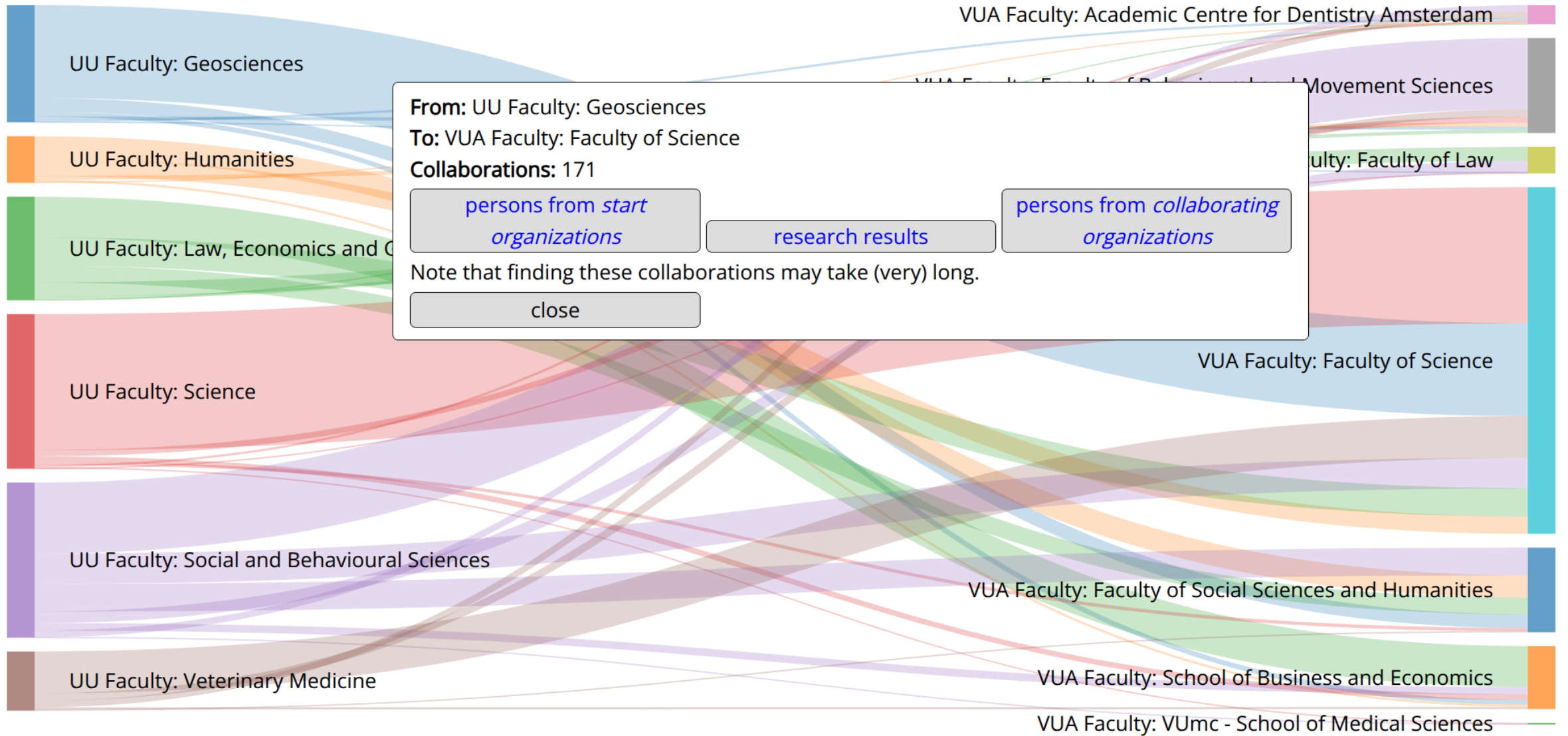
Publication collaborations

- UU and VUA faculties, 2022 – July 2025
- Total 1173 collaborations
- Example: UU Geosciences has 171 collaborations with VUA Science
- Try it yourself!



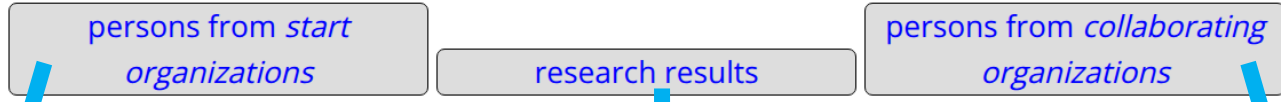
What can Ricgraph do?

Publication collaborations



What can Ricgraph Publication collabo

From: UU Faculty: Geosciences
 To: VUA Faculty: Faculty of Science
 Collaborations: 171



UU Faculty: Geosciences

UU Faculty: Humanities

UU Faculty: Law, Economic and G

Ricgraph Explorer

Home Broad search Advanced search REST API doc

University of Amsterdam

Faculty of Science

VUA Faculty: Faculty of Law

VUA Faculty: Faculty of Science

Ricgraph Explorer

Home Broad search Advanced search REST API doc

Collaborations related to these organizations

This table shows the research results that originate from the collaborations between "UU Faculty: Geosciences" and "VUA Faculty: Faculty of Science". It shows research results for the following categories: ['abstract', 'book', 'book chapter', 'conference article', 'editorial', 'entry for encyclopedia or dictionary', 'journal article', 'letter to the editor', 'memorandum', 'method description', 'patent', 'PhD thesis', 'poster', 'preprint', 'presentation', 'registered report', 'report', 'retraction', 'review', 'thesis'].

There are 171 rows in this table.

name	category	value	comment	year	url_main	url_other	_source	_history
DOI	journal article	10.1016/j.jurstud.2024.103256	Social determinants of rural food security	2024	url_main link	url_other link	<ul style="list-style-type: none"> OpenAlex-UU Pure-UU Pure-VUA 	▶ Click for history
DOI	journal article	10.1016/j.landusepol.2024.107234	Informing inclusive park planning	2024	url_main link	url_other link	<ul style="list-style-type: none"> Pure-UU Pure-VUA 	▶ Click for history
DOI	journal article	10.1177/10468781241271080	Using Social Media Data to Understand Citizen Perceptions of Urban Planning in a City Simulation Game	2024	url_main link	url_other link	<ul style="list-style-type: none"> OpenAlex-UU Pure-UU Pure-VUA 	▶ Click for history
DOI	journal article	10.1111/1365-2664.14875	Mass-flowering lupin has positive, but limited, effect on wild bee conservation in agricultural landscapes	2025	url_main link	url_other link	<ul style="list-style-type: none"> OpenAlex-UU Pure-UU Pure-VUA 	▶ Click for history
DOI	journal article	10.1016/j.eist.2024.100848	Framing for the protein transition	2024	url_main link	url_other link	<ul style="list-style-type: none"> Pure-DUT Pure-UU Pure-VUA 	▶ Click for history

Collaborations related to these organizations

This table shows the persons that are participating in the collaborations between "UU Faculty: Geosciences" and "VUA Faculty: Faculty of Science". It shows collaborations for the following categories: ['abstract', 'book', 'book chapter', 'conference article', 'editorial', 'entry for encyclopedia or dictionary', 'journal article', 'letter to the editor', 'memorandum', 'method description', 'patent', 'PhD thesis', 'poster', 'preprint', 'presentation', 'report', 'retraction', 'review', 'thesis'].

There are 199 rows in this table.

name	category	value	comment	year	url_main	url_other	_source	_history
person-root	person	6114e02a-8942-4d90-9d6b-0b132d176c51						▶ Click for history
person-root	person	8c45777b-2f82-4684-8b0b-73cb54d16ac3						▶ Click for history
person-root	person	1a4ce1c3-6dde-4d34-bc29-556ab5a0fc0b						▶ Click for history
person-root	person	6f23dea9-2fd6-46c9-ae65-44d65822f44a						▶ Click for history
person-root	person	ae33475-6774-48ef-8398-20ea9bb25300						▶ Click for history
person-root	person	6f5f277f-8842-4327-b84c-610fd6be4601						▶ Click for history
person-root	person	d9579e2a-330d-4624-826c-						▶ Click for history



Collaborations related to these organizations

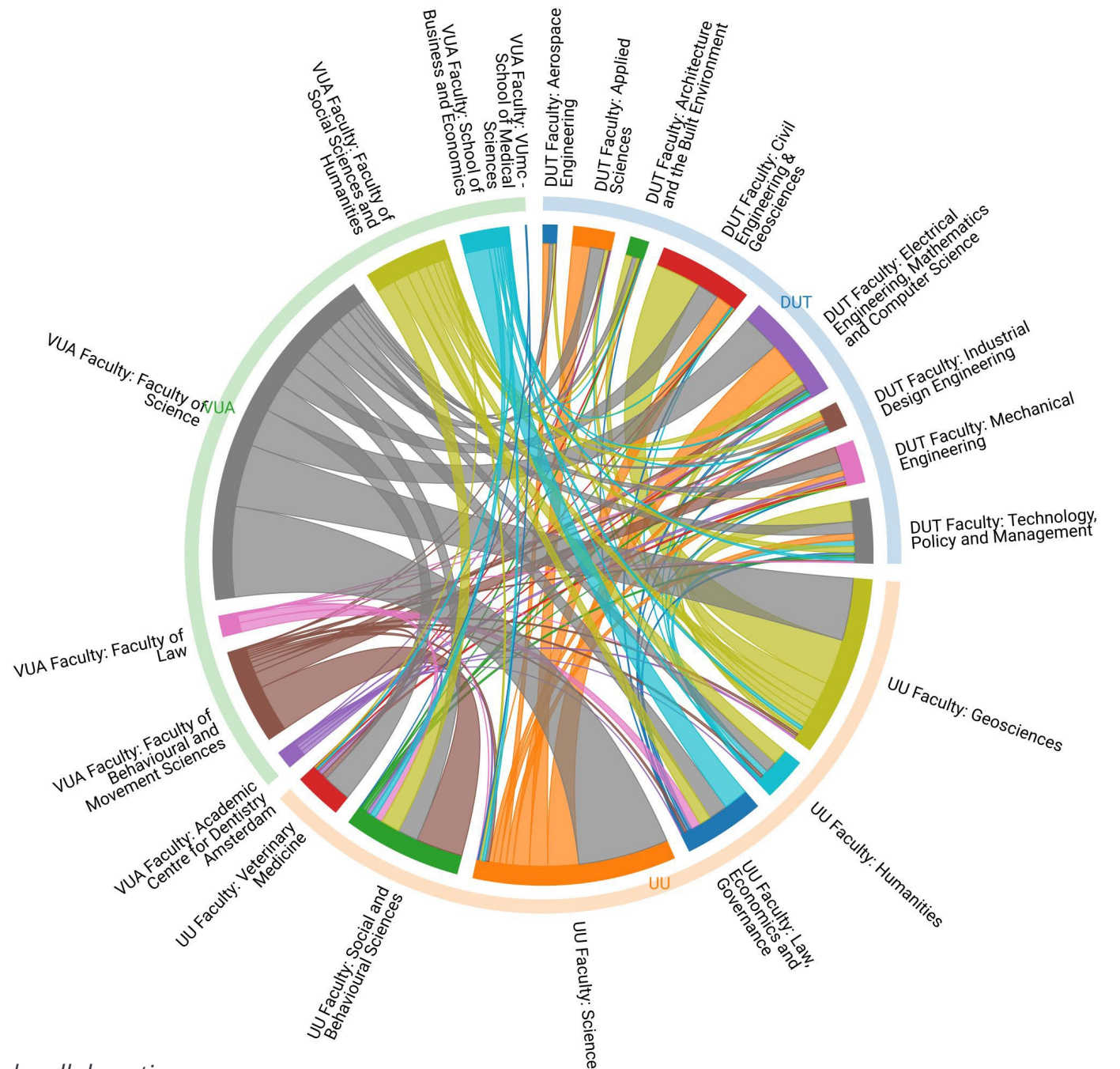
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There are 145 rows in this table.

name	category	value	comment	year	url_main	url_other	_source	_history
person-root	person	b631dea0-3671-4570-a168-29ada37e8364						▶ Click for history
person-root	person	5f39a9db-ce1e-4e39-b537-cb0741db1a21						▶ Click for history
person-root	person	86cd6e4e-36a5-4358-80b7-49b2cd48574e						▶ Click for history
person-root	person	0580efa4-1a28-4dee-a761-0f11bf512262						▶ Click for history
person-root	person	a89ee2ce-479e-49d1-91a0-2daa4c4741a1						▶ Click for history
person-root	person	7fa6b03f-553a-47e1-9894-9203dcb4cff0						▶ Click for history
person-root	person	8893322e-9409-47ad-94f1-32eb4fc2322c						▶ Click for history
person-root	person	5166a248-09a4-4eb0-a433-						▶ Click for history

What can Ricgraph do? Publication collaborations

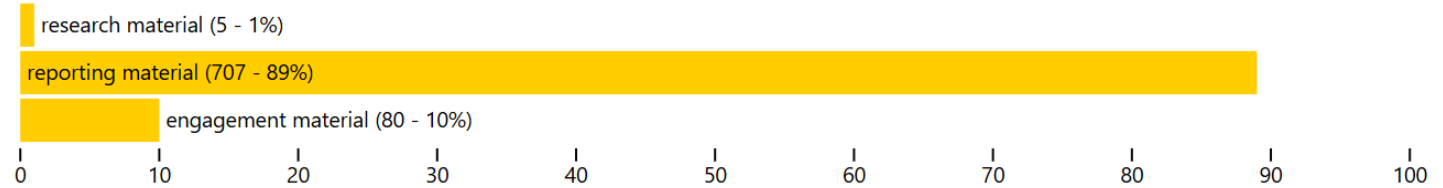
- UU, VUA, and DUT
faculties, 2022 – July
2025



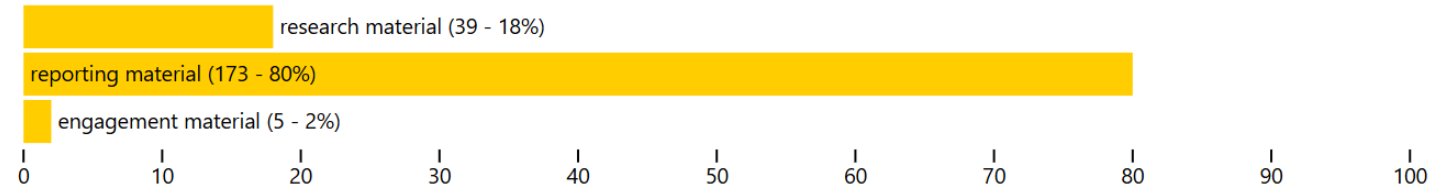
What can Ricgraph do? Help with open science landscaping

- Example: open science profile for 3 DUT departments
- Pure, OpenAlex: 2022 – 2026; RSD: all years
- You can set the year range & explore the underlying research results
- Try it yourself!

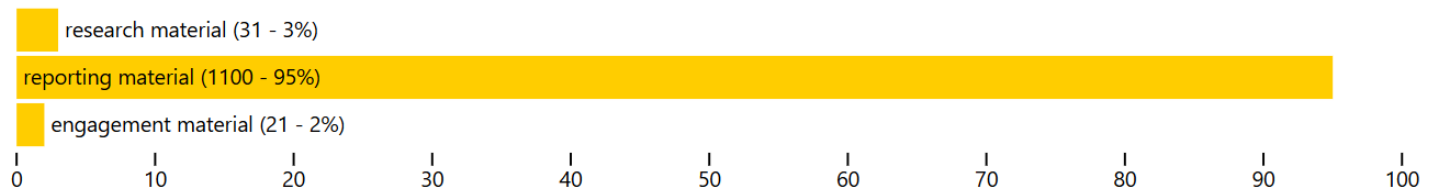
Open science profile (percentages) for all years for "DUT Department: Architecture"



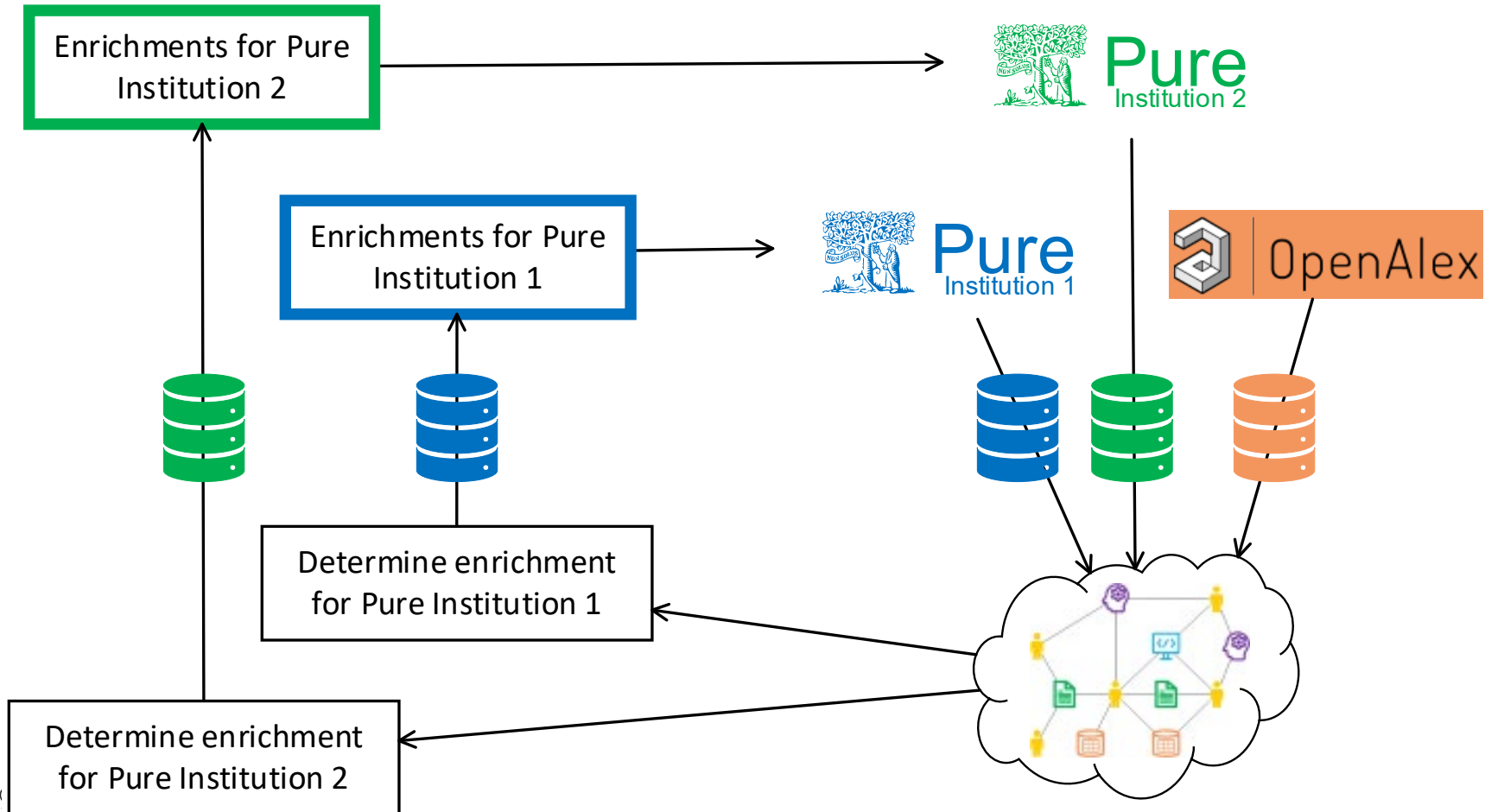
Open science profile (percentages) for all years for "DUT Department: Business Development"



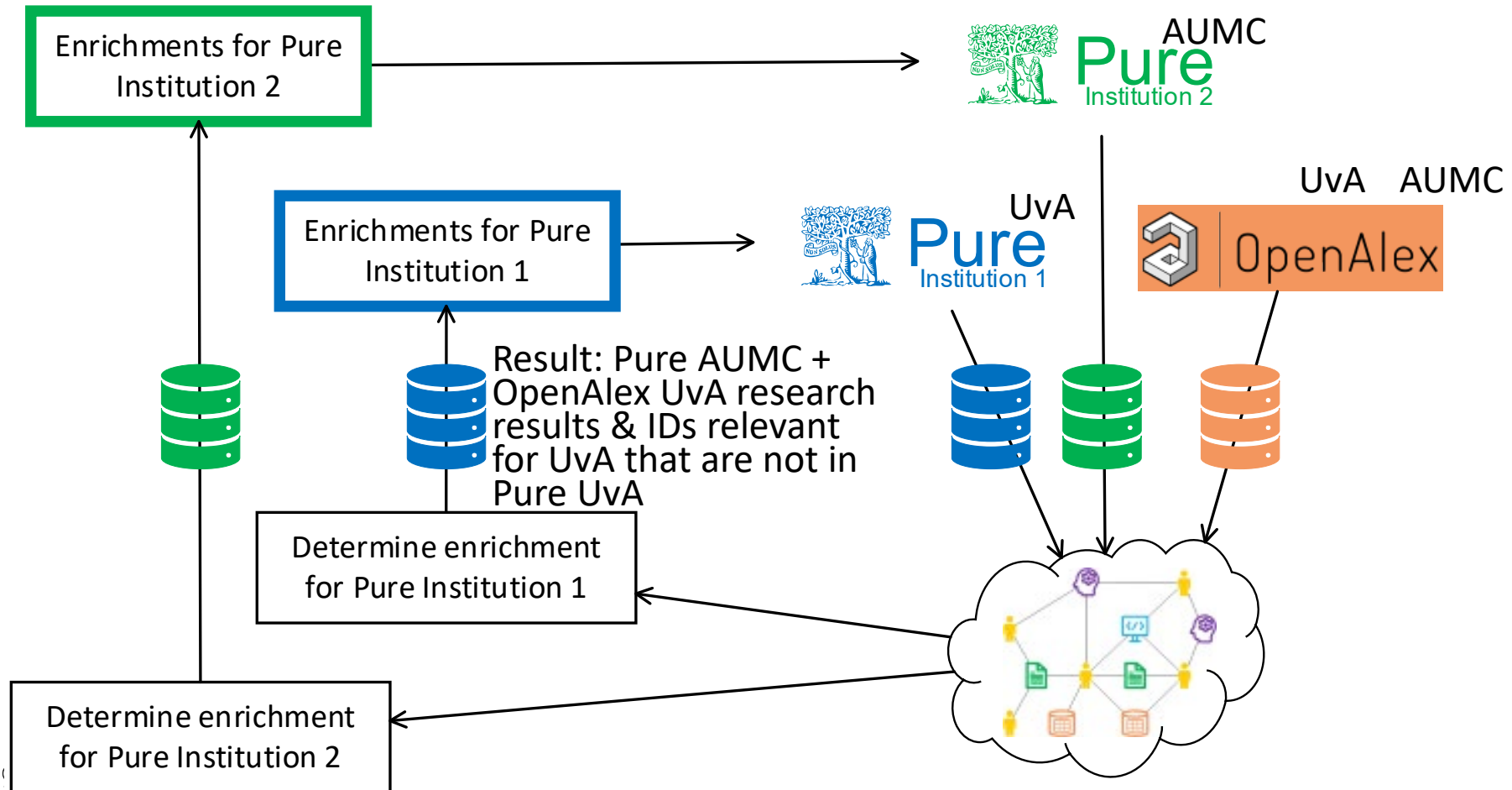
Open science profile (percentages) for all years for "DUT Department: Engineering Structures"



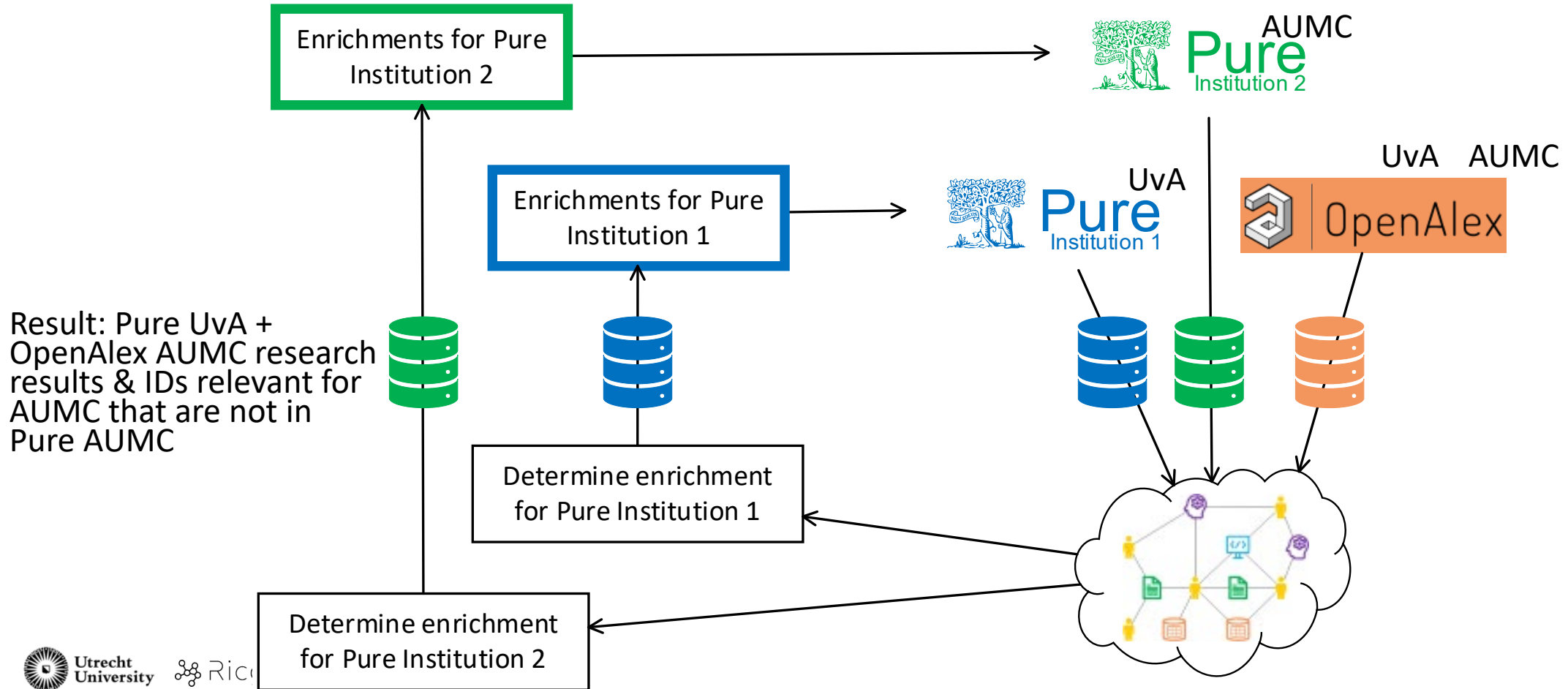
Enriching Pure from OpenAlex and other Pures using BackToPure



Enriching Pure from OpenAlex and other Pures using BackToPure (for UvA)



Enriching Pure from OpenAlex and other Pures using BackToPure (for AUMC)



BackToPure



http://127.0.0.1:5001/home



Useful Links:

Read me first!

[BackToPure GitHub Page](#)

[RicGraph GitHub Page](#)



[Update Internal Persons with IDs](#)

[Update External Persons with IDs](#)

[Import Research Outputs](#)

[Import Datasets](#)

[Update External Organisations](#)

Automate Your Research Data Management

Welcome to the BackToPure Script Runner

Prerequisites

Ricgraph: you need to have access to ricgraph

Pure: you need an API key for the CRUD API of pure

config: you need to fill in these in the config file

Introduction

The BackToPure Script Runner is a web-based interface designed to streamline and automate the management of research data within the PURE system. This platform provides a simple and intuitive way to execute a series of predefined scripts that handle various aspects of data enrichment and importation from external sources like RicGraph. The goal is to ensure that the data in PURE is comprehensive, up-to-date, and accurately reflects the academic contributions and research outputs of the institution.



BackToPure – Internal persons

- Update internal persons with IDs that are not in the Pure of your organization
- IDs originate from OpenAlex, Yoda, RSD, or Pure systems from other organizations
- UU Pure staging (run March 2026):
 - before: 7427 internal persons
 - after: updated 1023 internal persons with IDs from external sources

BackToPure – External persons

- Update external persons in the Pure of your organization with IDs
- IDs originate from OpenAlex, Yoda, RSD, or Pure systems from other organizations
- UU Pure staging (run March 2026):
 - before: ~313k external persons, no IDs
 - after: ~113k external persons with IDs, always OpenAlex ID, often also ORCID and SCOPUS ID

BackToPure – Research results and datasets

- Add research results and datasets for your organization that are not in the Pure of your organization
- They originate from OpenAlex, Yoda, RSD, or Pure systems from other organizations
- UU Pure staging (run March 2026):
 - added 2167 research results
 - added 1696 datasets

BackToPure – External organizations

BackToPure (BTP) vs Elsevier Organization Resolver Service (ORS):

- ORS: online no information, I have read somewhere that it merges based on geographical location
- BTP: adds RORs
- BTP: merges organization names based on similarity, using (1) OpenAlex organization name variants; (2) a LLM
- UU Pure staging (run March 2026):
 - before: ~80k external orgs
 - after: ~56k external orgs + ~24k RORs
 - cost: ca. 1 euro for LLM API calls



Other developments

- Research AI chatbot → 9 UU students, feb 2026–july 2026
- Clean up external organizations in Pure → UU colleague
David Grote Beverborg
- Topics using AI & LLMs → 1 HU student, nov 2025–may 2026
- Modern frontend backend UI → 1 HU student, feb 2026–july 2026
- Open science monitoring → UU colleagues

How to use Ricgraph?

Install it on your own laptop or server (docs.ricgraph.eu):

- full control
- choose your own source systems and organizations

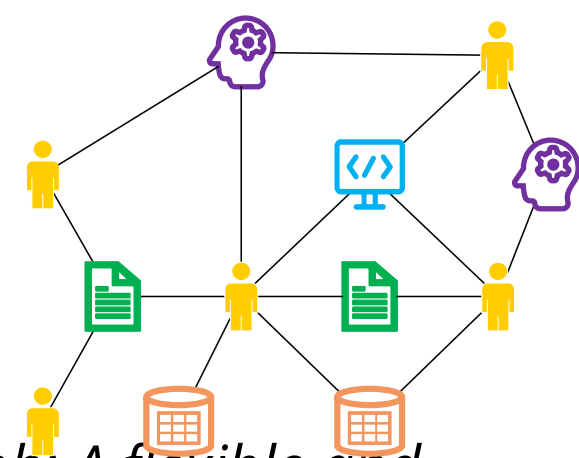
Use the pilot Open Ricgraph demo server (explorer.ricgraph.eu):

- nothing to install
- now: DUT Pure, AUMC Pure, OpenAlex, and Research software directory
- your organization can participate! → contact me, or go to www.ricgraph.eu/pilot-project-open-ricgraph-demo-server.html

Questions

- Plans for the pilot.
Discovering insights from cross-organizational research information and collaborations: A pilot project using Ricgraph, Rik D.T. Janssen (2025), <https://doi.org/10.5281/zenodo.15637647>





Links

- Websites: www.ricgraph.eu and docs.ricgraph.eu
- Reference publication: Rik D.T. Janssen (2024). *Ricgraph: A flexible and extensible graph to explore research in context from various systems*. *SoftwareX*, 26(101736). <https://doi.org/10.1016/j.softx.2024.101736>
- Rik D.T. Janssen (2025). *Utilizing Ricgraph to gain insights into research collaborations across institutions, at every organizational level*. [preprint]. <https://doi.org/10.2139/ssrn.5524439>.
- GitHub (software): <https://github.com/UtrechtUniversity/ricgraph>
- Zenodo: <https://doi.org/10.5281/zenodo.7524314>
- Explore & participate in pilot project Open Ricgraph demo server: www.ricgraph.eu/pilot-project-open-ricgraph-demo-server.html

More information, presentations, demos, install workshops:

- Rik D.T. Janssen, r.d.t.janssen@uu.nl



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University**

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shaping tomorrow



Ricgraph