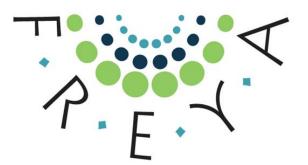
FREYA: Connected Open Identifiers for Discovery, Access and Use of Research Resources

Vasily Bunakov (STFC UKRI, FREYA project)

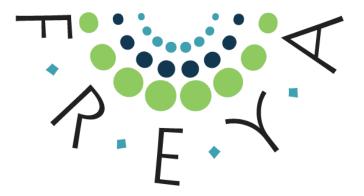


DARE, DEEP and XDC clustering workshop in Athens, July 2019

FREYA in a nutshell

- FREYA is a Horizon 2020 project (grant agreement no. 777523)
- FREYA is about persistent identifiers and connections between them
 - "... iteratively extend a robust environment for Persistent Identifiers (PIDs) into a core component of European and global research e-infrastructures"
- Builds on THOR (which in turn built on ODIN)

www.project-freya.eu



PID Forum: www.pidforum.org

FREYA partners





DataCite











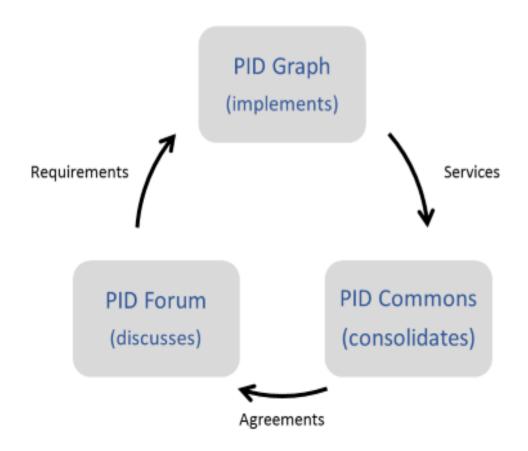


Data Archiving and Networked Services





Key concepts of FREYA



Your active participation in PID Forum will be very welcome.

Please join at www.pidforum.org

Important FREYA themes

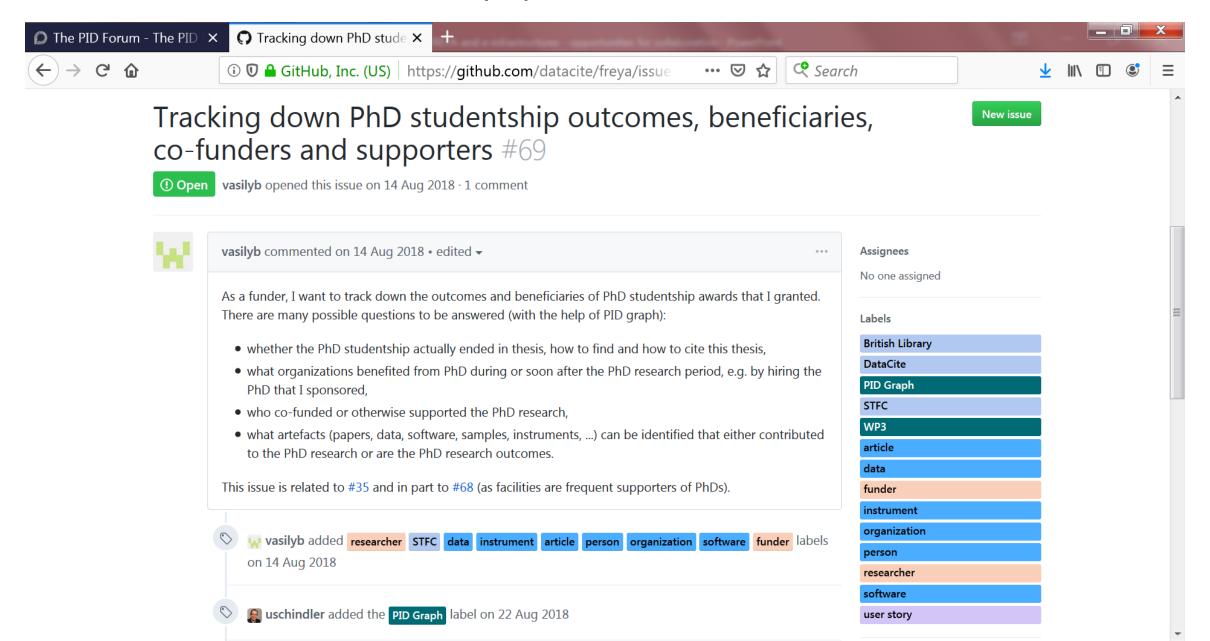
- New types of entities with PIDs, e.g. Organizations, Grants, Instruments. Connections with RDA on some types, e.g.
 Persistent Identification of Instruments WG (nearing the end of the WG lifecycle and looking for pilots).
- PID Graph as the driving vision. A natural connection with RDA will be Open Science Graphs for FAIR Data IG (in community review at the moment).
- Goal of open and trusted PID infrastructure provision within European Open Science Cloud and globally (so FREYA delegates people in the EOSC WGs)

FREYA value proposition

"Customers": who should benefit from FREYA added value Individual Research Research infrastructures researchers institutions Added value Added value delivered as "Added value": FREYA works and artefacts they produce delivered as "products" Pilot (use case-specific) applications, "services" (artefacts) ideally based on new common recommendations and APIs New common Updated New common Research training (universal) (universal) FREYA performance reports materials recommendations)* **APIs** seems good FREYA performance seems promising **FREYA** outcomes "Foundation": past PID projects and PID service providers suitable for delivery "Grey" areas that as "products" require discussion **THOR** FREYA outcomes DataCite CrossRef ORCID)* E.g. recommendations on PIDs suitable for delivery metadata or metadata "profiles" **ODIN**

as "services"

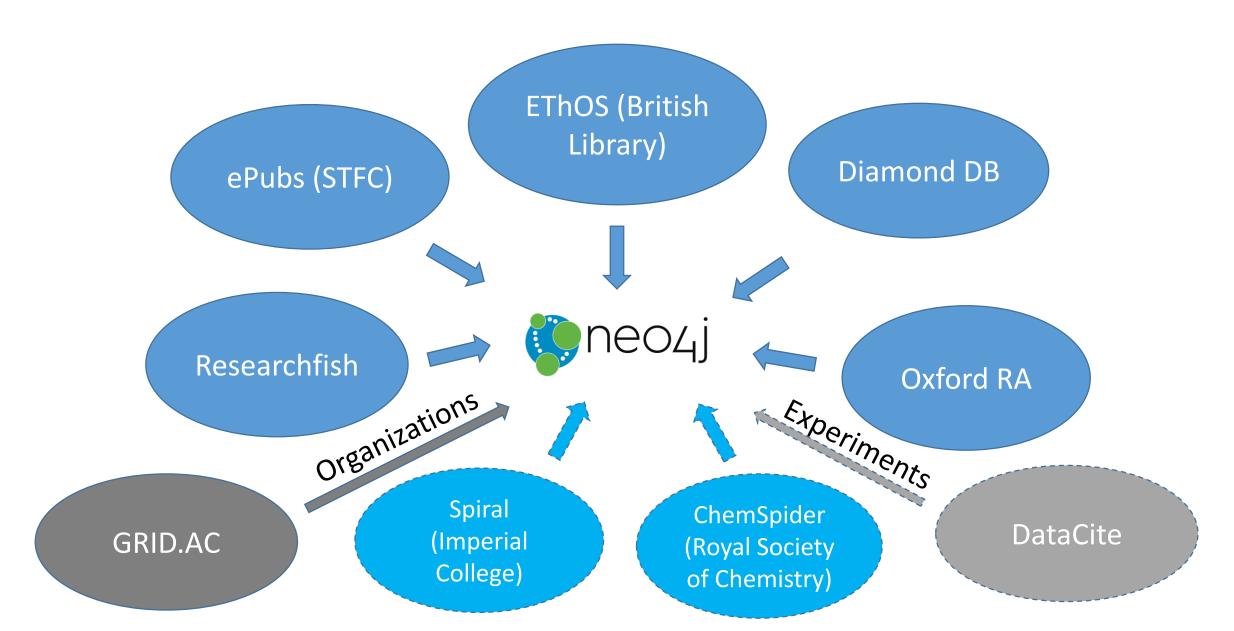
How we develop pilots: with user stories



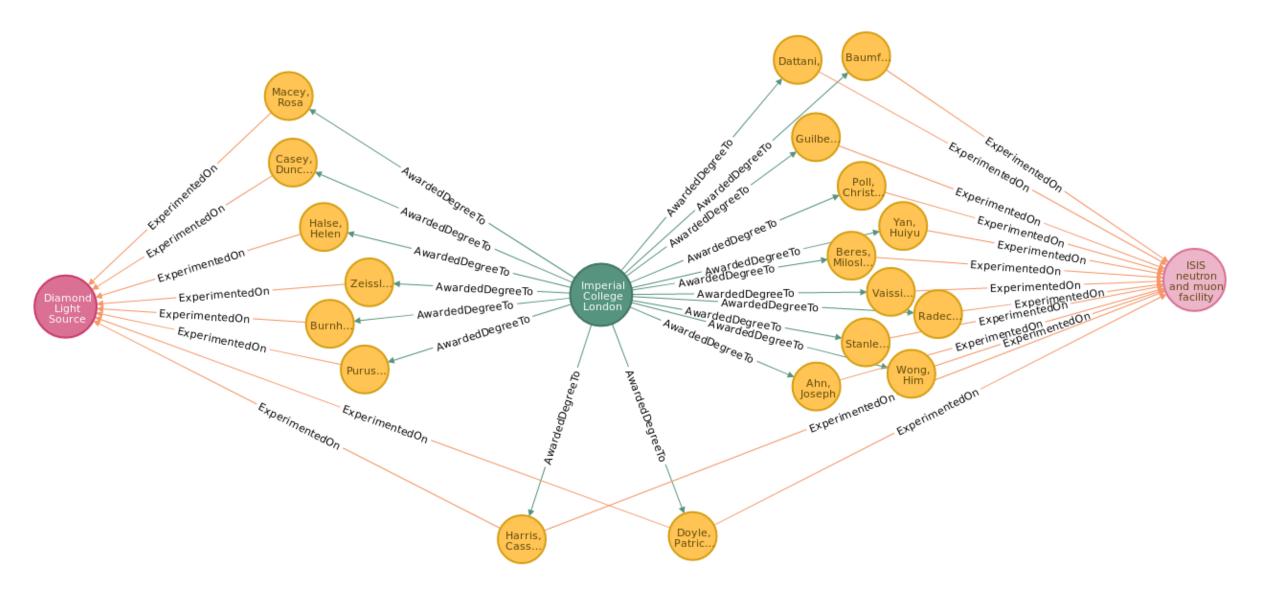
Why the PhDs use case is important for FREYA (as an example of use case-driven approach)

- Collaboration: British Library and STFC are the FREYA partners and operate repositories that can be used for data integration
- Validation of new PID services for Organizations and Instruments and supplying feedback for their improvement
- **Demonstration** of PID graph value in a disciplinary context
- Integration of a disciplinary graph in a common PID graph via reasonable interfaces

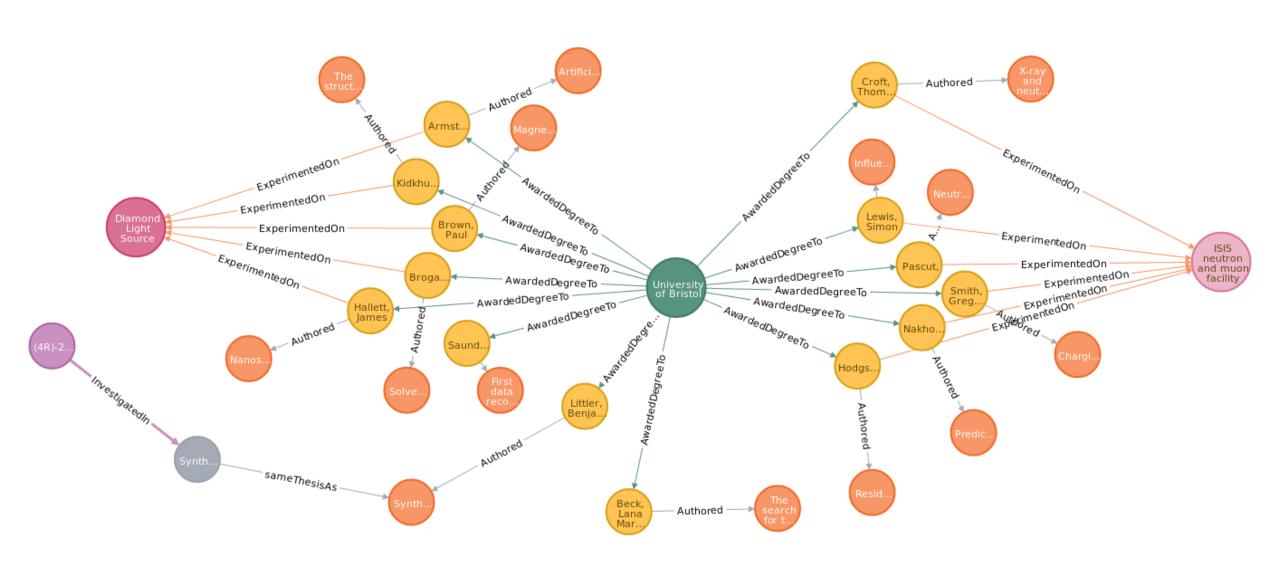
Data sources to integrate



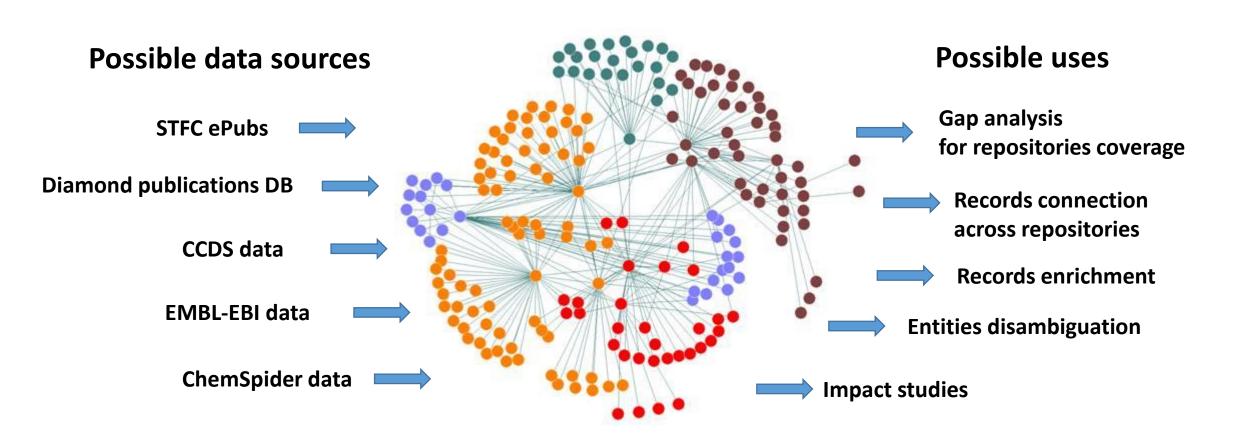
Imperial College PhDs who experimented on STFC facilities



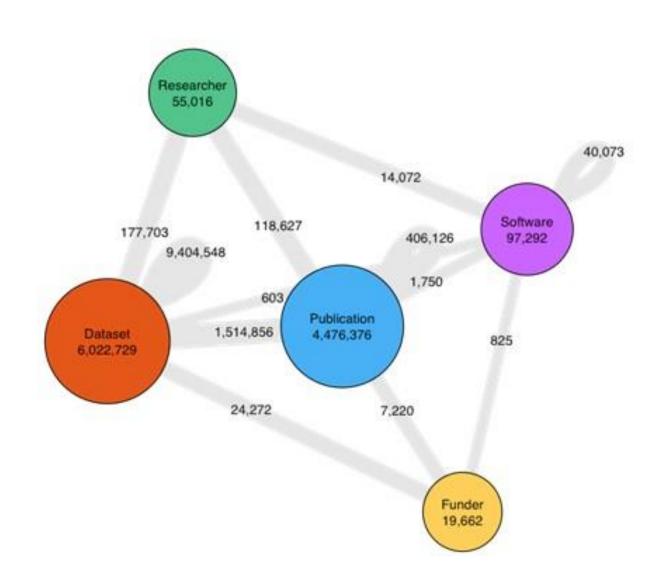
Another graph example (with connections to EThOS and ChemSpider)



Support of impact studies is not the only purpose, also PhD theses records can be just a "seed" of a larger graph. PID graph is a (new kind of) infrastructure for Open Science



Another vision of PID graph: a federation or services with a common GraphQL API



See Martin Fenner's blogpost:

https://doi.org/10.5438/bv9z-dc66

See also Jupyter notebooks:

https://github.com/datacite/notebooks

See also the section of PID Forum devoted to PID graphs: https://www.pidforum.org/c/pid-graph

Specific PID types of a potential interest for e-infrastructures

Emerging PID types

- Organizations
 Research Organization Registry https://ror.org/
- Instruments
 RDA Persistent Identification of Instruments WG

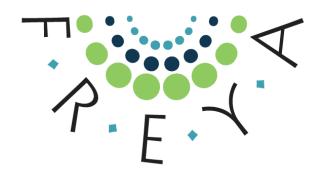
Established PID types

- Researchers
 ORCIDs for earlier stages of research lifecycle, e.g. for research resources used https://orcid.org/organizations/research-orgs/resources
- Datasets
 More e-infrastructures datasets may require clear identification and at least basic metadata assigned

How e-infrastructures can contribute and benefit from the PID infrastructure

- Follow PID Forum at www.pidforum.org and contribute to it with your own best practices of PIDs use and integration
- Comment on FREYA pilot applications, and modify / bend them towards your own needs. Specifically, tell us whether you feel the GraphQL APIs can be a way forward for the integration of PIDs infrastructure in your community
- Contribute to one or more RDA groups, notably to Persistent Identification of Instruments WG (results adoption phase) and to Open Science Graphs for FAIR Data IG (community review and then the actual works of the group)
- Become a PIDs Ambassador, or nominate one in your project or organization.
 See FREYA Ambassador Programme at https://www.project-freya.eu/en/ambassadors/ambassador-programme
- Plan for joint training events, live and online?

Thank you!



Web: www.project-freya.eu

Email: info@project-freya.eu

Twitter: @freya_eu

PID Forum: www.pidforum.org



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