DOE OSTI – Connecting Research Components Using PIDs

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CHORUS Forum
Mapping the Research Lifecycle - Connecting the Pieces

U.S. DEPARTMENT OF ENERGY | Office of Science | Office of Scientific and Technical Information

US DOE OSTI Mission and Services

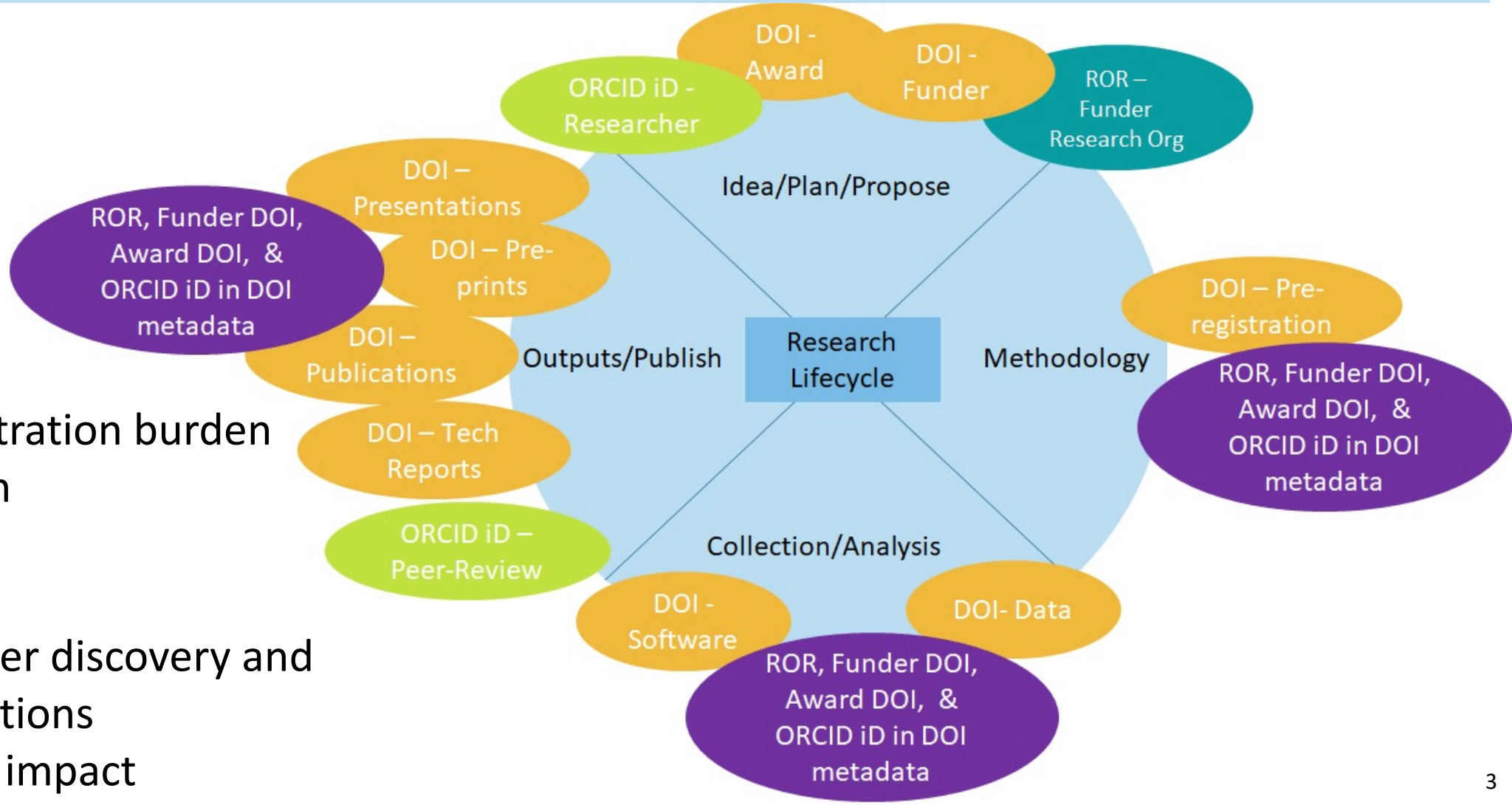
Mission: The US Department of Energy's Office of Scientific and Technical Information (OSTI) collects, preserves, and disseminates DOE-funded research and development results.

Required by law: Energy Policy Act of 2005, P.L. 109-58, Section 982: "The Secretary, through the Office of Scientific and Technical Information, shall maintain within the Department publicly available collections of scientific and technical information resulting from research, development, demonstration, and commercial applications activities supported by the Department."

Core Function: Provide and use persistent identifier services

PIDs at DOE and throughout the Research Lifecycle

PID Definition (OSTP) – A digital identifier that is globally unique, persistent, machine resolvable and processable, and has an associated metadata schema.



PIDs support:

- Easing administration burden
- Disambiguation
- Proper credit
- Reporting
- Enabling broader discovery and making connections
- Understanding impact

OSTI PID Services

PIDs for Research Outputs

Reports, Posters, Presentations

E-Link

Data

Data ID Services

Software

DOE CODE

Crossref

DataCite

PIDs for Awards

Award DOI Service

Crossref

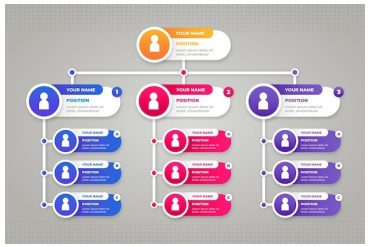
PIDs for People

US Government ORCID Consortium

OSTI.GOV

ORCID

PIDs for Organizations



OSTI Org Authority

Funder Registry

ROR

Crossref

PIDs@OSTI.GOV

PIDs for Data

OSTI provides DOIs for DOE-funded research data through the free DOE Data ID Service and to partnering US government agencies through the Interagency DOI Service.

PIDs for Software

OSTI provides DOIs for DOE-funded software through the DOE software services platform and search tool DOE CODE. DOIs are optionally assigned when submitting software to OSTI and automatically assigned through the formal software announcement process.

PIDs for Text Documents

OSTI automatically assigns DOIs to DOE-funded technical reports, workshop reports, conference posters, and presentations submitted to OSTI through the E-Link submission system.

PIDs for Awards

OSTI provides the Award DOI Service for DOE organizations to assign DOIs to awards, grants, and contracts.

PIDs for People

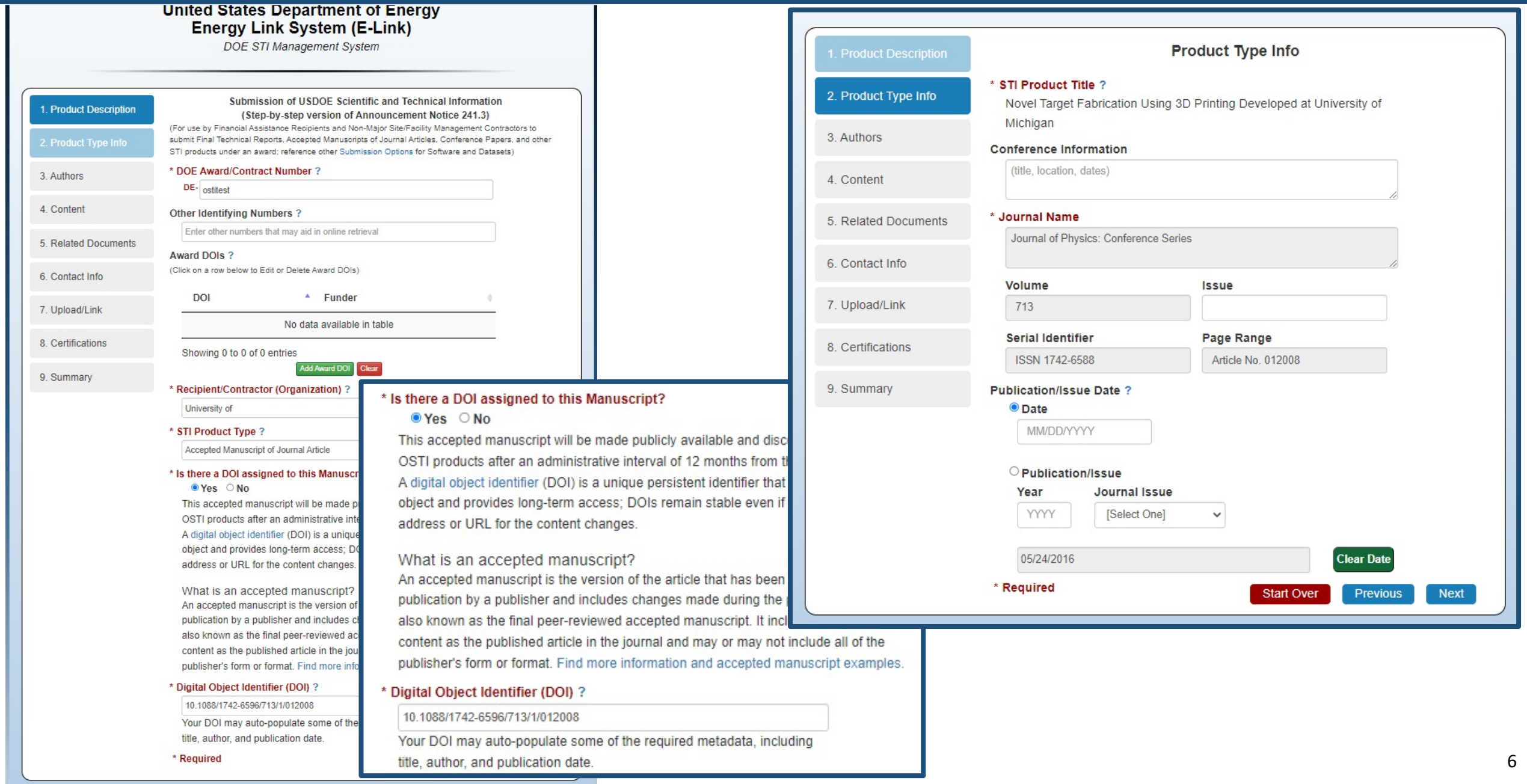
OSTI leads the US Government ORCID Consortium for US government organizations who would like to use, collect, and integrate ORCID iDs into their research workflows.

PIDs for Organizations

OSTI maintains an internal organization authority that maps organization names to organization PIDs such as ROR, DOI, Wikidata, and Ringgold identifiers.

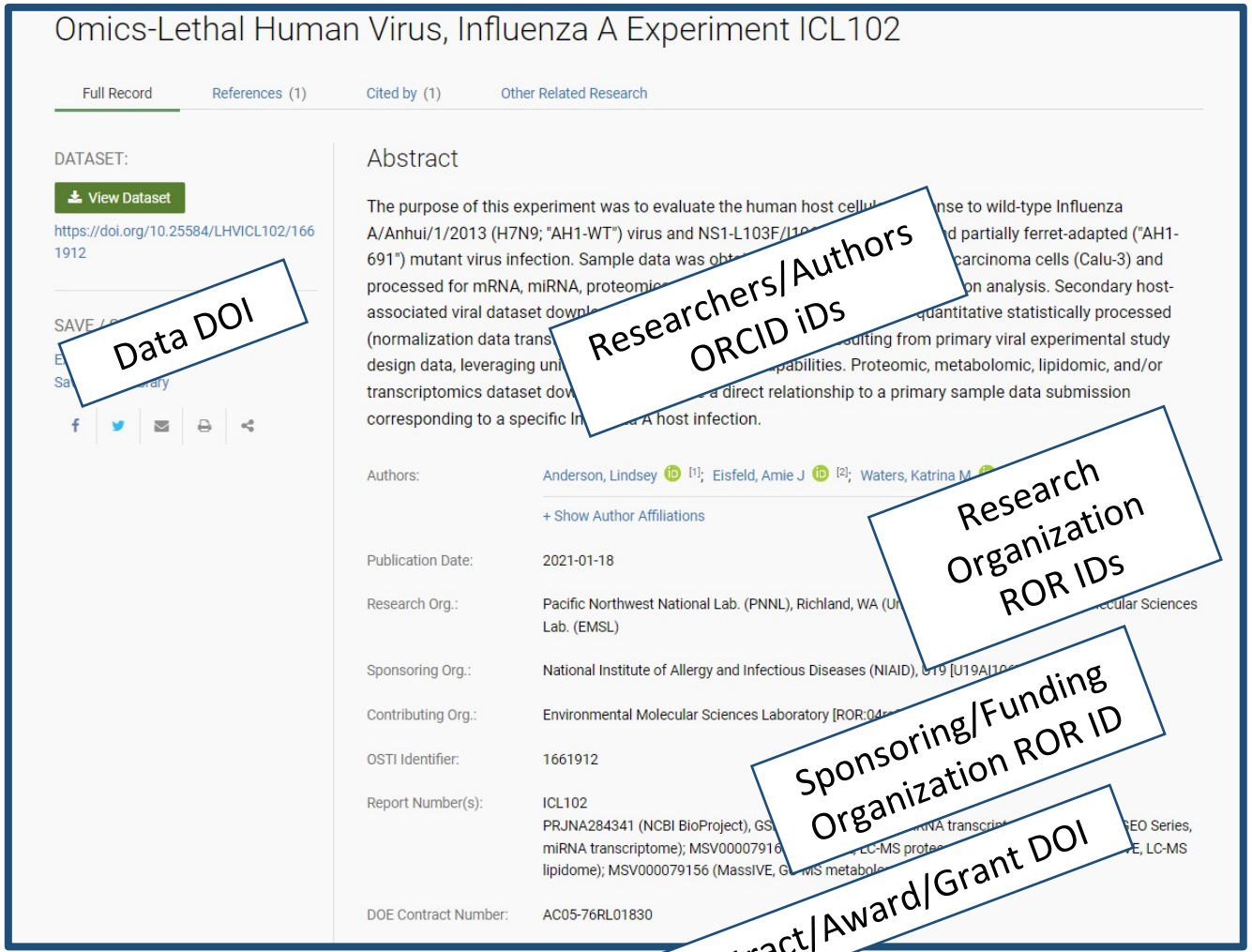
https://www.osti.gov/pids/

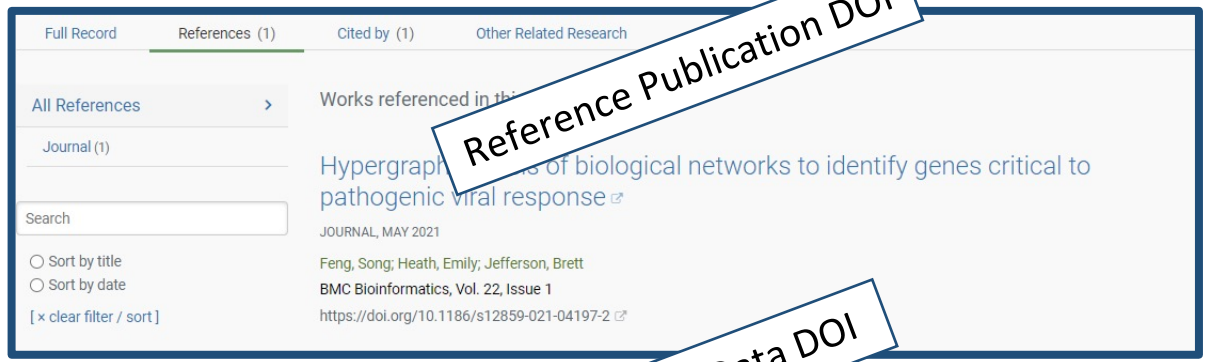
Using PIDs for Reporting and Easing Burden

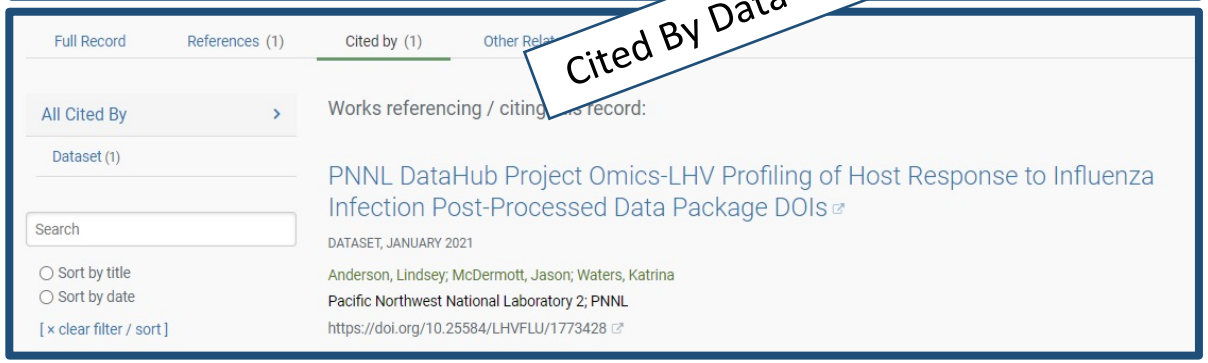


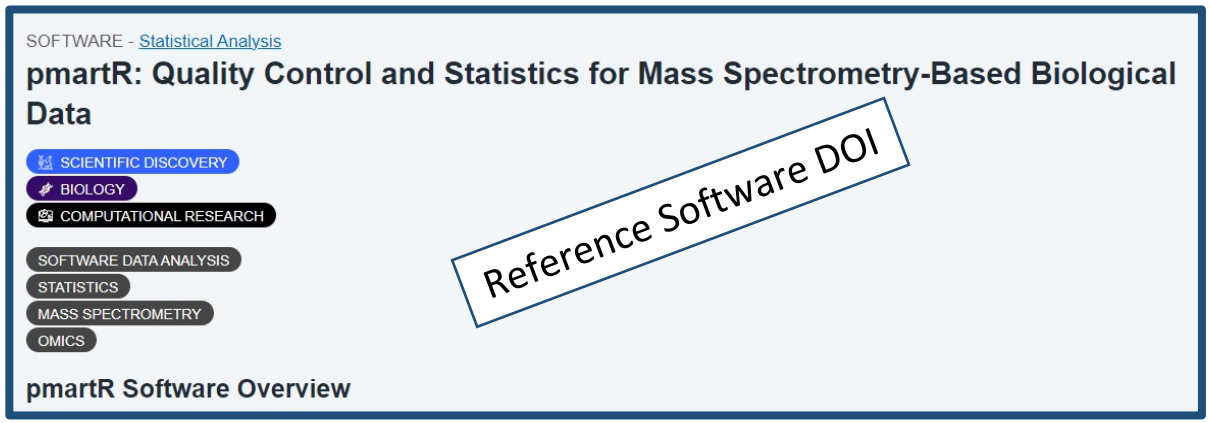
Using PIDs to Broaden Discovery and Make Connections

Data Record









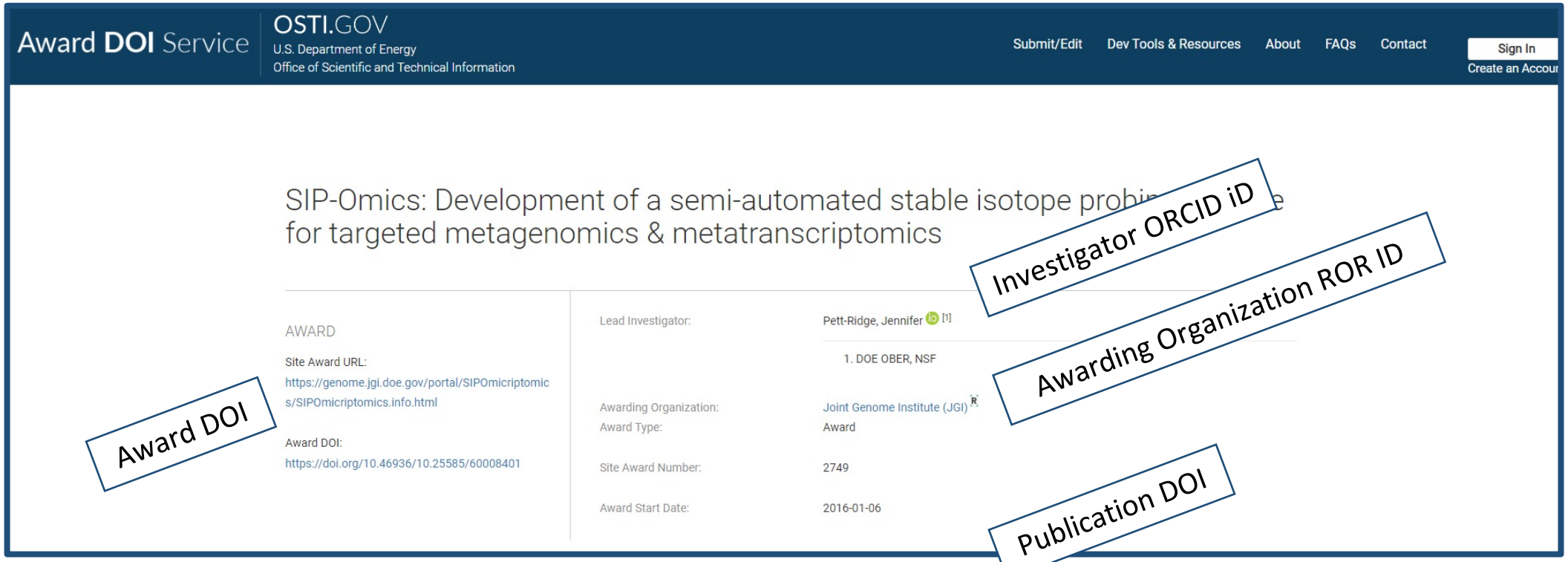
https://www.osti.gov/biblio/1661912

https://data.pnnl.gov/group/nodes/software/33341

Using PIDs to Broaden Discovery and Make Connections

Award Record

https://doi.org/10.46936/10.25585/60008401



Research | Open Access | Published: 25 November 2022

HT-SIP: a semi-automated stable isotope probing pipeline identifies cross-kingdom interactions in the hyphosphere of arbuscular mycorrhizal fungi

Erin E. Nuccio, Steven J. Blazewicz, Marissa Lafler, Ashley N. Campbell, Anne Kakouridis, Jeffrey A. Kimbrel, Jessica Wollard, Dariia Vyshenska, Robert Riley, Andy Tomatsu, Rachel Hestrin, Rex R. Malmstrom, Mary Firestone & Jennifer Pett-Ridge

Microbiome **10**, Article number: 199 (2022) | Cite this article

3152 Accesses | **1** Citations | **105** Altmetric | Metrics

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https://doi.org/10.1186/s40168-022-01391-z

Using PIDs to Understand Impact

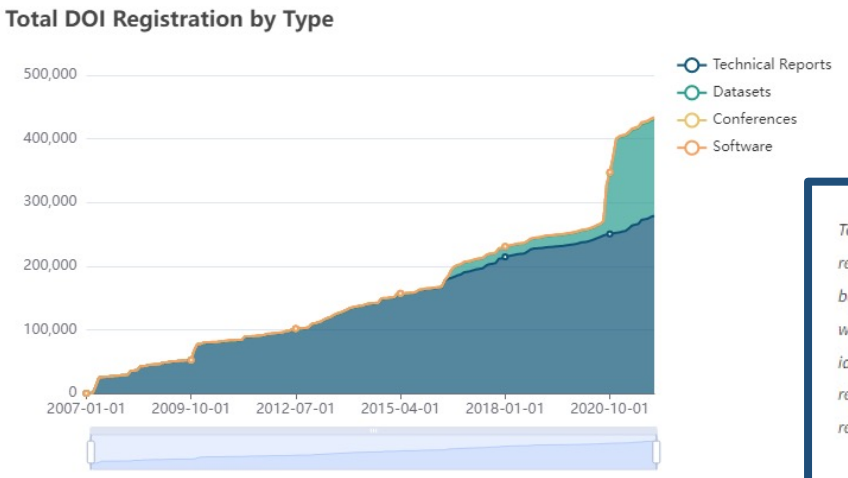
Impact of Persistent Identifiers

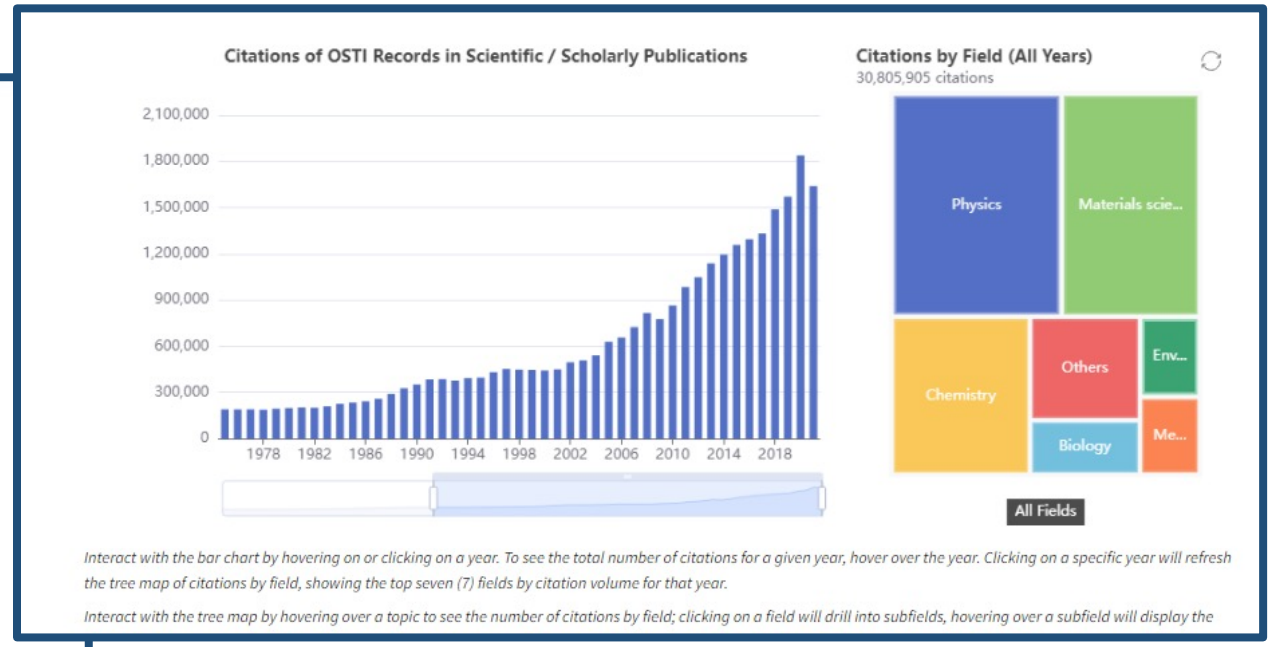
The persistent identification of digital entities (e.g., research outputs, people, funders, awards, etc.) can increase discoverability of research, alleviating data validation issues, and reducing researcher burden.

By increasing discoverability of research-related objects, user communities can track their research over time and develop programmatic methods for finding, reproducing, and reusing research. PIDs are an essential component to developing mechanisms for human-machine interoperability, which helps promote improved citation and reference tracking.

PIDs are not just for journal articles and datasets. DOE OSTI collects DOIs for many different research product types (e.g. conference papers, conference proceedings, journal articles, etc.). And OSTI's DOI Services provide DOI assignment and registration for technical reports, conference posters and presentations, data, and software.

Since 2007, more than 400k DOIs have been registered by OSTI on behalf of the DOE community for texts, data, and software. More than 1.6M of the records in OSTI.GOV can be referenced with a DOI.

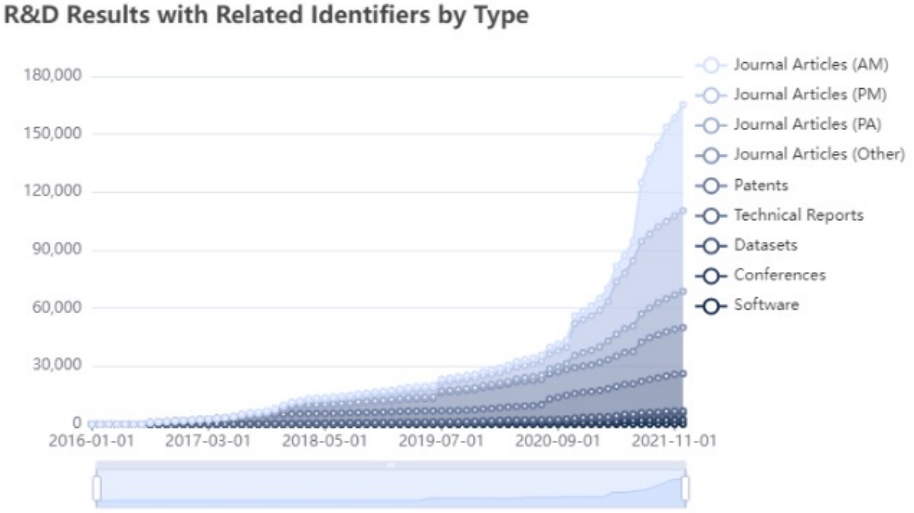




Interact with the bar chart by hovering on or clicking on a year. To see the total number of citations for a given year, hover over the year. Clicking on a specific year will refresh the tree map of citations by field, showing the top seven (7) fields by citation volume for that year.

Interact with the tree map by hovering over a topic to see the number of citations by field; clicking on a field will drill into subfields, hovering over a subfield will display the

To date, more than 260k records in OSTI.GOV have been submitted or curated with related identifiers that identify specific types of relationships with other research products.



https://www.osti.gov/pids/using-pids/impact

Thank you!

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Please reach out to pids@osti.gov with any questions.