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Mirion Connect 2022

Department of Energy and National Lab Forum

FAIR implementation

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FAIR - Findability, Accessibility, Interoperability, and Reuse

- In 2013, Whitehouse Office of Science and Technology Policy (OSTP) issued direction to most federal agencies on “Increasing Access to the Results of Federally Funded Scientific Research”.
- In 2014, issuance of the “DOE Public Access Plan”.
 - “To the greatest extent, with the fewest constraints possible, and consistent with the requirements and other principles stated in this document, data sharing should make digital research data available to and useful for the scientific community, industry, and the public.”
- Subsequently, “DOE Policy for Digital Research Data Management”.
 - “Each DOE sponsoring research office will ensure that all of its funded research activities have an associated Data Management Plan (DMP).”

FAIR - Findability, Accessibility, Interoperability, and Reuse (continued)

- In 2016, the 'FAIR Guiding Principles for scientific data management and stewardship' were published in Scientific Data. The authors intended to provide guidelines to improve the Findability, Accessibility, Interoperability, and Reuse of digital assets.
- GO FAIR is a bottom-up, stakeholder-driven and self-governed initiative that aims to implement the FAIR data principles, making data Findable, Accessible, Interoperable and Reusable (FAIR).
 - <https://www.go-fair.org/>
- OpenAIRE is a Non-Profit Partnership, established in 2018 as a legal entity, OpenAIRE A.M.K.E, to ensure a permanent open scholarly communication infrastructure to support European research.
 - <https://www.openaire.eu/about>

FAIR - Findability, Accessibility, Interoperability, and Reuse (continued)

- One typical practice for enhancing the Findability of data is the assignment of a Digital Object Identifier (DOI) for a dataset, e.g., “Conway, H. Establishing an e-learning program within Mirion’s training program in the nuclear measurement industry. J Radioanal Nucl Chem 318, 183–185 (2018). <https://doi.org/10.1007/s10967-018-6114-8>”
- DataCite (<https://datacite.org/>) is a provider of DOIs for research data.
- Data repositories – such as U.S. Government’s open data (<https://data.gov/>), PNNL DataHub (<https://data.pnnl.gov/>), or external repositories such as Figshare (<https://figshare.com/>)

FAIR - Findability, Accessibility, Interoperability, and Reuse (continued)

- PNNL DataHub (<https://data.pnnl.gov/>)
 - Short lived fission product gamma data
 - Welcome to the Short-Lived Fission Product Gamma Data website! You will find experimental information as well as gamma spectra from the unseparated fission products of U-233, U-235, U-238, Np-237, and Pu-239 exposed to neutron spectra of various energies. The pdf file titled "Experimental and Data Analysis" will give you additional information about how the data available for download was collected and analyzed. ...
 - Methods to Collect, Compile, and Analyze Observed Short-lived Fission Product Gamma Data, PNNL-20141, September 2011
 - EC Finn, RF Payne, LR Greenwood, BD Pierson, LA Metz, JI Friese, JD Kephart, TA Ellis