Semantic Interoperability Profiles as Knowledge Base for Semantic Solutions

FAIR Implementation Profile (FIP)

chosen by a community

FAIR Principle	FAIR Enabling Resource	R1.3 FIP
Box 2 | The FAIR Guiding Principles	essential for putting FAIR into action	
To be Findable:		F1 identifier service
~~F1. (meta)data are assigned a globally unique and persistent identifier~~		F2 metadata schema
F2 F2. data are described with rich metadata (defined by R1 below)	metadata schema: DCAT	F3 metadata-data linking schema
~~F3. metadata clearly and explicitly include the identifier of the data it describes~~		F4 registry
F4. (meta)data are registered or indexed in a searchable resource		A1.1 communication protocol
		A1.2 authentication & authorization service
		A2 metadata preservation policy
To be Reusable:		I1 knowledge representation language
~~R1. meta(data) are richly described with a plurality of accurate and relevant attri~~		I2 structured vocabulary
R1.1 R1.1. (meta)data are released with a clear and accessible data usage license	data usage license: CC-BY-4.0	I3 semantic model
~~R1.2. (meta)data are associated with detailed provenance~~		R1.1 data usage license
R1.3. (meta)data meet domain-relevant community standards		R1.2 provenance model

informed by FIP

reuse

Data Management Plan

- metadata schema
- FAIR practice
- data usage license
- registry

Magagna, B., Suchánek, M., and Kuhn, T.: Semantic Interoperability Profiles as knowledge base for semantic solutions, EGU General Assembly 2024, Vienna, Austria, 14–19 Apr 2024, EGU24-12230, https://doi.org/10.5194/egusphere-egu24-12230, 2024.

based on

informed by SIP

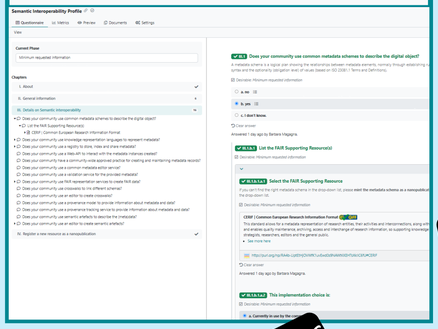
Semantic Interoperability Profile (SIP)

FAIR Specification	FAIR Supporting Service
metadata schema	editor
crosswalk	registry
structured vocabulary	validation service
semantic model	Web API
provenance model	provenance tracking service
knowledge representation language	FAIR representation service
	FAIR practice

type

collect & describe

SIP Wizard questionnaire



store as RDF

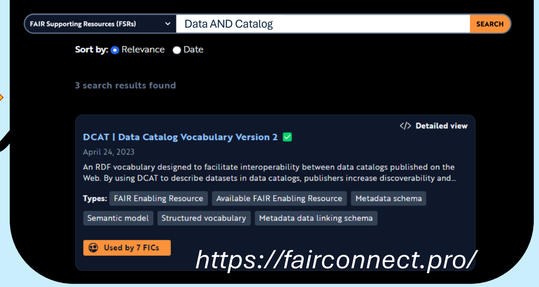
nanopublication
- assertion
- provenance
- publication info

discoverable via FAIR Connect

find

FAIR Connect

Empowering Data Stewardship

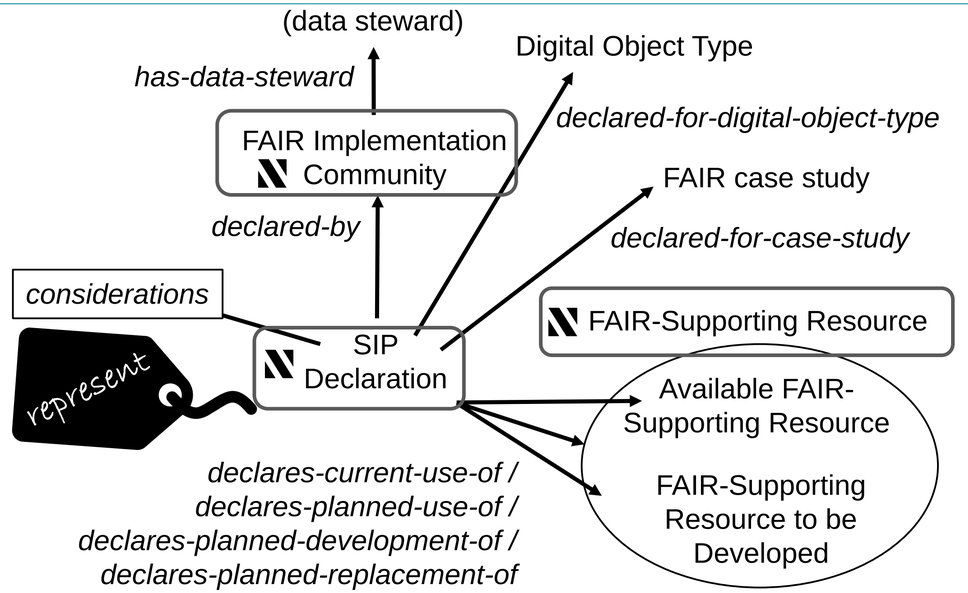


https://fairconnect.pro/

Semantic Interoperability Profile (SIP)

is a list of FAIR Supporting Resources chosen by a community to support semantic interoperability of (meta)data expressed in machine interpretable nanopublications and findable in FAIR Connect.

eosc *-A TF SI: DOI:10.5281/zenodo.10843882*



FIP Ontology: https://w3id.org/fair/fip