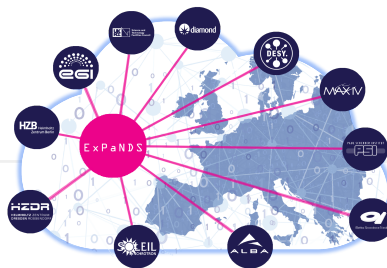# NeXus ontology

Sustainability sheet

An ontology of **NeXus format definitions** (the dominant metadata model with the PaN domain). NeXusOntology is a representation of the formal NeXus definitions and is created automatically from NeXus definition files.

Target audiences
- Instrument scientists
- Data stewards
- Data managers
- Data consumers

Benefits
- Express community-agreed concepts in a **standard** form
- Provide **PIDs** for all NeXus concepts
- Formalise **relationships** between NeXus concepts
- Provide NeXus **explorer tool** via standard Ontology tools
- Enhance **interoperability**
- Enhance **data search** capabilities

Accessibility
Source code (1)
V1 can be loaded, for example, by selecting 'open from URL' in Protege and typing:
https://raw.githubusercontent.com/nexusformat/NeXusOntology/main/ontology/NeXusOntology.owl

Documentation
- Methodology (2)
- Plus ontology annotation and linked NeXus documentation

Licence CC BY 4.0 (3)

Feedback mechanism
Via NeXus Format Github issue tracking (4) and NeXus mailing lists.

Competitors
Complementary to (and links to) the NeXus documentation and annotation

Technology readiness
In production: the NeXus Ontology project has been handed over to the NIAC (5)

EOSC integration status
Not onboarded

Plans and conditions for long-term sustainability
- The NIAC will create new minor versions on V1 ontology as and when changes are made to the approved NeXus definitions. NIAC are working towards a major new version (NeXus Ontology V2) which will provide a more complete representation of NeXus, including a taxonomy of all NeXus concepts.
- NIAC will provide resources and governance for all aspects of the NeXus definitions, including NeXus Ontology. NIAC includes some of the original authors of the NeXus ontology, and have arranged discussions with co-authors who are not NIAC representatives.
- The FAIRmat project is currently leading the development of NeXus Ontology V2 project *via* Sandor Brockhauser (FAIRmat and NIAC).

Links