E. v4.00 EOSC Research Product Profile

Research products are EOSC resources resulting from a scientific process, digital assets produced and shared by users/services for users/services, such as research literature, research data(sets), research software, and others. Research Products are characterized/described by metadata to be used for citation, attribution, re-use, reproducibility, semantic linking, and findability, made available via EOSC Data Sources (of types: Repository, Scientific Database, Aggregator, Journal site, Publisher site).

Research products are organized into four classes:

- Publications ("literature", intended for humans to read),
- Research data (information to be used by programs; human readability is a feature),
- Research software (code for compilation or interpretation), and
- Other research products (products that are not classified as literature, datasets, and software).

The model may in the future be extended to include more first-class citizen entities. For example, by identifying into “Other Research Products” other classes of products that are “mature” enough to flank publications, data, and software. The following figure shows the overall EOSC information model, inclusive of Services, Data Sources, Catalogues of services, Providers, Research Products, Training Resources, and EOSC Interoperability Frameworks.

The EOSC Research Product Profiles include today the following metadata profiles as defined by the OpenAIRE guidelines, which provide a community-endorsed classification of research products based on standard metadata formats (DataCite, Dublin Core, JATS, OpenAIRE) and vocabularies (CASRAI, COAR) in scholarly communication. The EOSC profiles include the metadata formats as described in the following set of guidelines:

- OpenAIRE Guidelines for Institutional and Thematic Repositories v4.0 https://openaire-guidelines-for-literature-repository-managers.readthedocs.io/en/v4.0.0

EOSC Data Sources whose products expose metadata that respect the metadata formats above can be onboarded into the EOSC Resource Catalogue, as long as the EOSC Data Source matches one of the eligible EOSC Data Source Protocols for Research Product onboarding. As a System of Systems, the EOSC will further extend the set of Research Product profiles to include other standards regarded as well-established, complete, and endorsed by the research communities. Work is being carried out to explore the inclusion of Life Science entities via https://bioschemas.org and DCAT-compatible Data Sources.

The onboarding process (validation and aggregation of metadata) takes place via the EOSC Research Product Onboarding Services, powered by OpenAIRE PROVIDE. More on the onboarding process can be found at https://provide.openaire.eu.