

Poster: Czech Core Metadata Model for research data

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This poster presents the Czech Core Metadata Model (CCMM), developed collaboratively by the National Library of Technology (NTK) and the EOSC CZ Metadata Working Group, with NTK leading the conceptual and technical design. CCMM provides a structured framework for describing research datasets, harmonizing metadata across repositories, ensuring interoperability, and offering a foundational structure for emerging domain-specific data repositories within the Czech Republic, while being aligned with European and global standards (1).

The conceptual layer of CCMM uses RDF to ensure semantic interoperability and integration across systems, serving as a flexible and reusable backbone for repository metadata. From this conceptual RDF model, a structural XML representation has been derived as one of the possible solutions to support practical implementation in repository systems and metadata aggregators such as OpenAIRE or the National Metadata Directory (2,3). CCMM reuses and extends concepts from the DCAT vocabulary (4) to ensure alignment with established data description practices while maintaining compatibility with the DataCite metadata schema (5) to facilitate DOI assignment for datasets. Metadata profile was designed to cover foundational attributes of research data with capability to extend it by domain-specific attributes to make it useful for standalone repositories of specific scientific fields.

Input from more than a year-long participatory process, including structured feedback and targeted surveys, informed the selection and prioritization of metadata elements. While community engagement played a role in identifying practical requirements, the model's scope, structure, and technical specifications were primarily shaped by these iterative evaluations to ensure that CCMM addresses real-world repository needs while remaining interoperable and extensible (6).

The poster will visually depict the CCMM structure, illustrating the relationships between core metadata elements and highlighting the rationale for their inclusion based on community input. It will emphasize the collaborative workflow between NTK, which led the model's design and technical validation, and the EOSC CZ Metadata Working Group, which provided strategic guidance and ensured alignment with known research data policies, both national and european (7).

By presenting CCMM, the poster offers a concrete example of how conceptual metadata models can be co-developed with structured feedback to enhance interoperability, discoverability, and reusability of research datasets. It provides practical insights for repositories and data managers aiming to implement or adapt metadata standards within national and international contexts.

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