

Nuclear, Astro, and Particle Metadata Integration for eXperiments (NAPMIX)



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Introduction

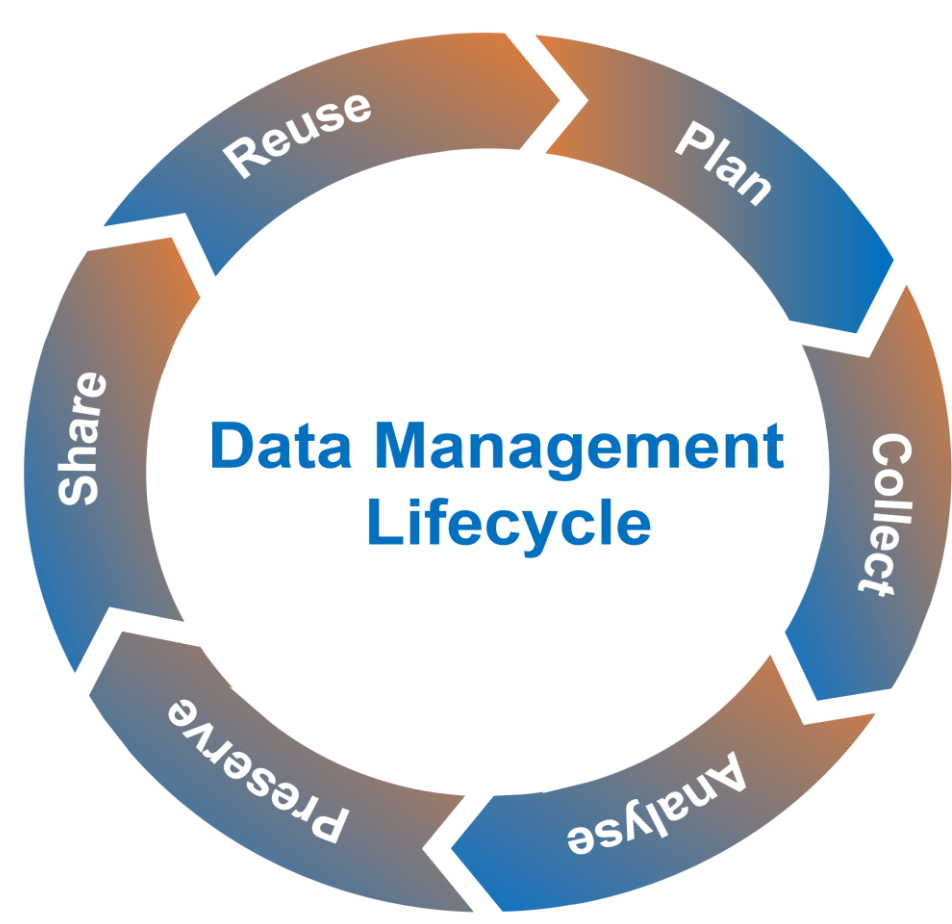
When publishing data, also publish machine readable metadata! Enables:

- F.: Findability of datasets – repository searches;
- A.: Accessibility of datasets – retrievable using identifier;
- I.: Interoperability between datasets – common languages;
- R.: Reproducibility of data – transparency and integrity.

However;

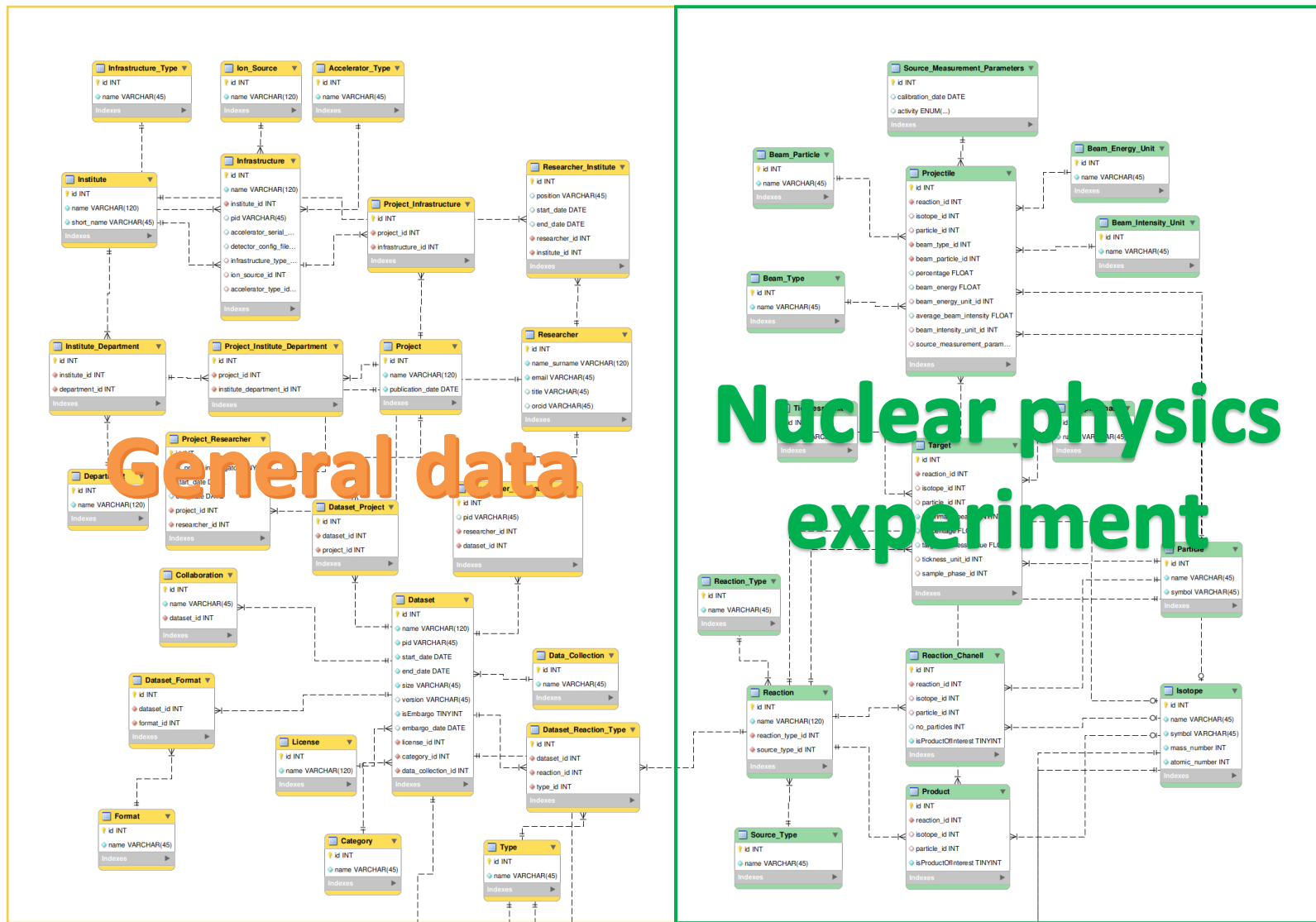
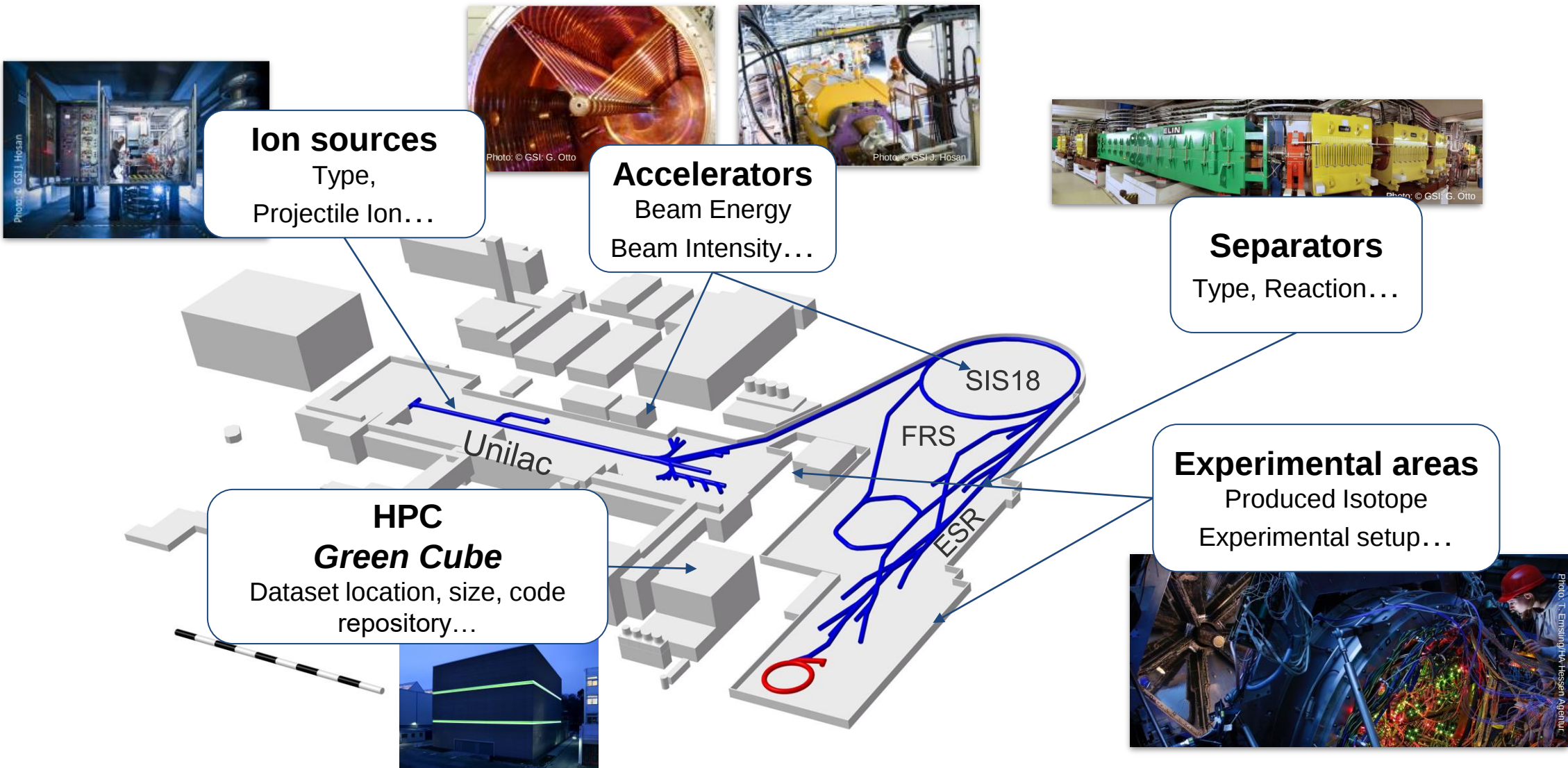
- No common schema existing between accelerator/nuclear physics experiments
- Researchers unaware of how to generate metadata for their data
- Researchers unaware or unsure on what metadata even is

The NAPMIX project will strengthen Open Science in nuclear, astro, and particle physics by creating an application that facilitates metadata input and a common schema that unifies data descriptions. This will enhance cross-domain collaboration and the F.A.I.R.-ness of experimental datasets.



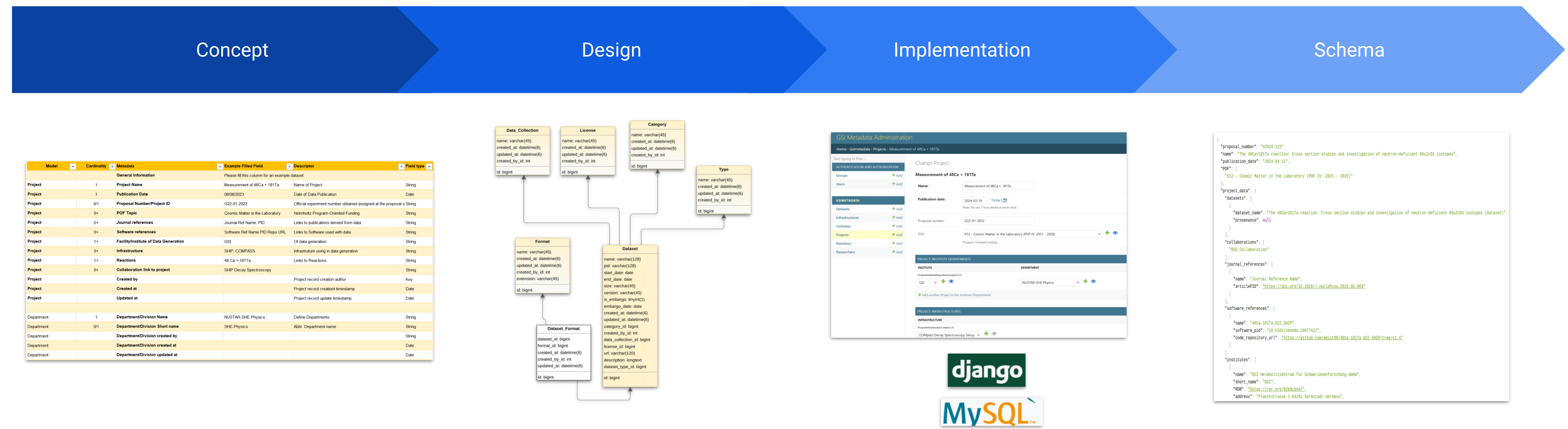
Pilot Study

- Use Case GSI and within Euro-Labs
- Identify 'layers' of metadata
- Identify common overlaps
- Development of backend app for input



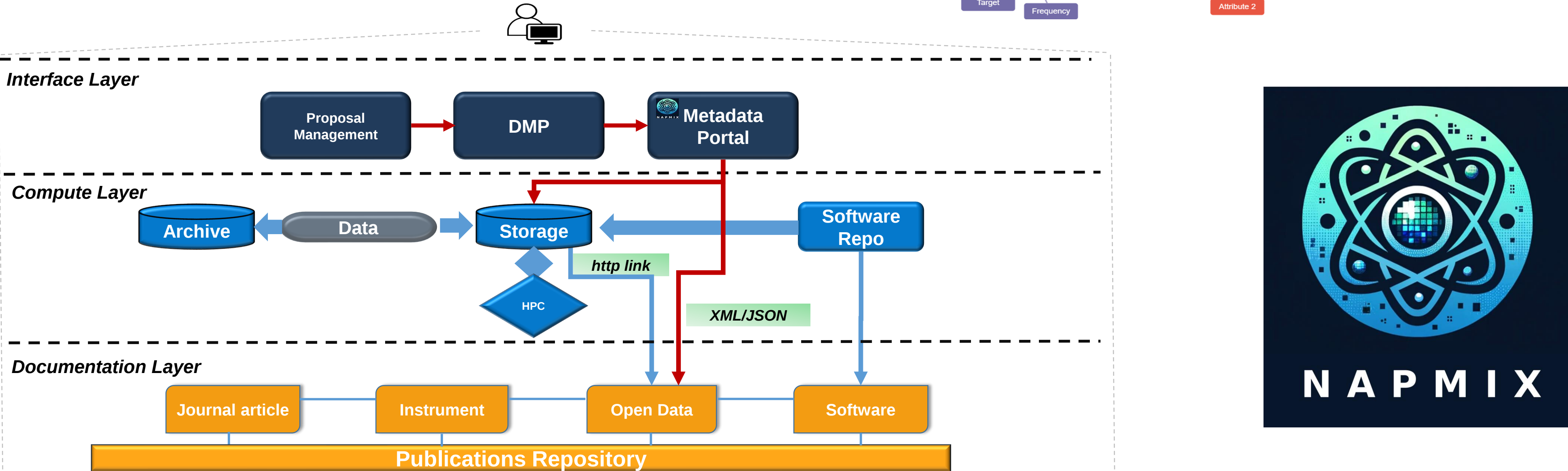
Project Development

- 1. Project Start December 2024
- 2. Database Model Evaluation and Improvement
- 3. Data Enrichment Strategy Implementation
- 4. API Integration for Metadata Transfer
- 5. Metadata Schema Testing and Publication
- 6. Comprehensive Training Workshop
- 7. EOSC integration and project dissemination
- 8. Project end December 2026



Wider Integration

- Interconnected nodal-based structure
- Stratification of the metadata
- Expansion of use cases
- Integration to OS ecosystems
- Connections to EOSC



Collaboration



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