



**GDAŃSK UNIVERSITY
OF TECHNOLOGY**

Harmonisation and alignment between vocabularies for interoperability

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**“Building blocks of Global Research Commons: Europe and
beyond”**

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Goals of the Project

1

The project specifies **the overview and challenges of data sharing practices** in four scientific disciplines - **architecture, civil engineering, economics and natural language processing**. Our review will describe the opportunities for data sharing in diverse disciplines, workflow practices in data management, implementation of metadata standards, and the social aspect of sharing data, such as researchers' attitudes and discipline-specific traditions.

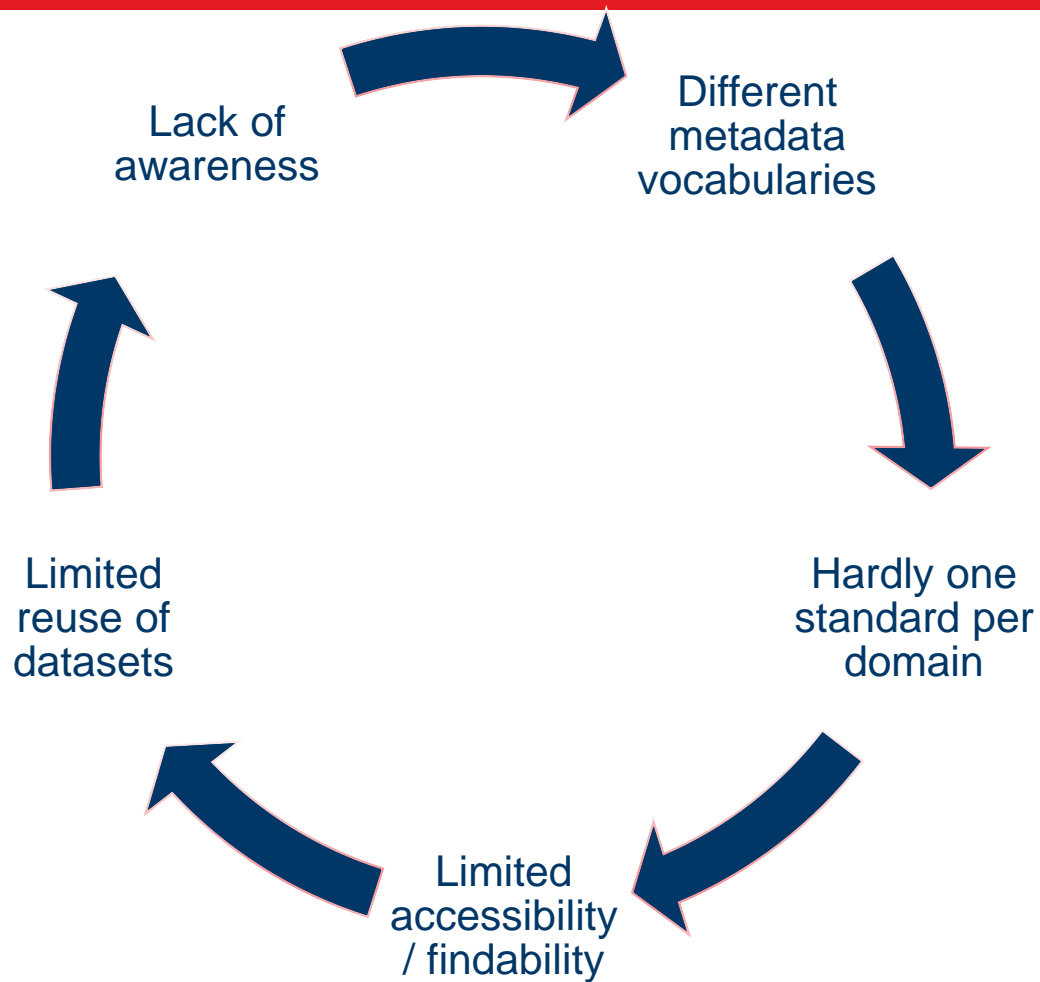
Simultaneously, we would like to implement our existing data repository (**MOST WIEDZY Open Research Data Catalog** - <https://mostwiedzy.pl/en/open-research-data/catalog>) into the EOSC Portal Catalogue and Marketplace as a data provider.

2





Main problems





Layers of interoperability

Organizational/Community interoperability

Processes must be coordinated by different communities/ domain/scientific teams to achieve through mutual goals

Semantic interoperability

Vocabularies and exchanged data must be understood by all scientific researchers/communities/users

Technical interoperability

Linking data, systems, and services at the multidisciplinary level / not domain specific



Data harmonisation and alignment

- **Data harmonization requires a systematic process for validity**
- **Reduce the vocabulary proliferation**
- **Aligning vocabularies, code and value sets**

Our experience (based on Digital Pathology)

- 1. Aligning work processes and operations** (integrated activities: schemas and data exchange based upon detailed).
- 2. Knowledge sharing** (defining best practices, specification of metadata, methods and technical standards).
- 3. Value creation** (Common metadata descriptors are developed)
- 4. Strategic alignment** (adaptation of BioBank and Ethical Committee requirements adoption).



Harmonisation and alignment between vocabularies for interoperability

Digital Pathology

3THFK-MD00350-1

Age
11

Clinical description

Autopsy. Suspicion of acute, necrotic liver damage. Oedema and congestion of the lungs. Bilateral bronchopneumonia. Brain oedema . Shock kidneys.

Gender
Male

Diagnosis

Classification

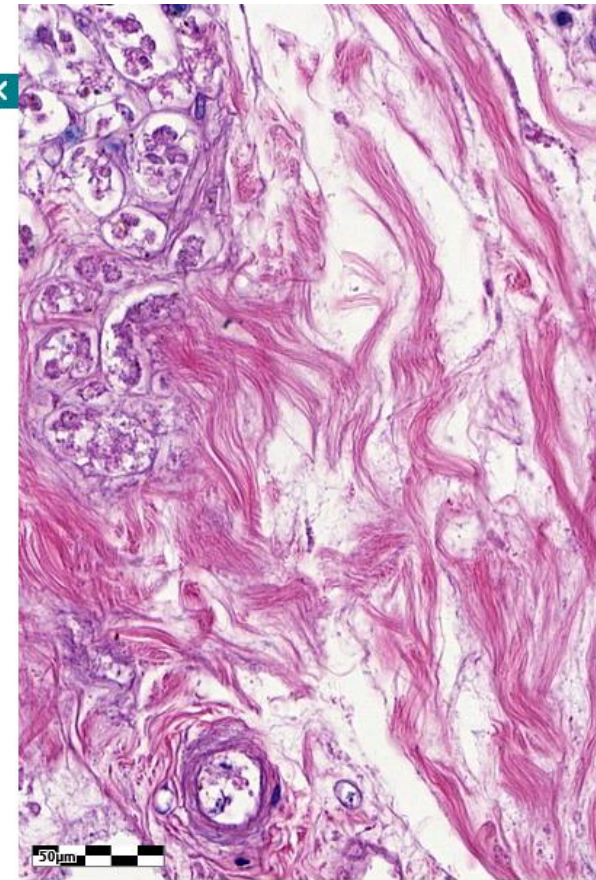
ICD-10_10-20

Classification code

K00-K93: Chapter XI - Diseases of the digestive system

Diagnosis

K86: Other diseases of pancreas



Result of the histopathological examination

Pancreatic sections with the presence of deserted pancreatic islets, with architecture, focally with slight infiltrations of lymphocytes. Thick mucus in the pancreatic ducts with a tendency for calcification.

Sample

Material

FFPE

Collecting method

Autopsy specimen

Topography

C15-C26: DIGESTIVE ORGANS

Organ

C25: PANCREAS

Tissue

C25.9: Pancreas, NOS

Type of staining

positive/HE

Staining

Not applicable

Antibody

Not applicable

Technology

- <https://digitalpathology.pl/show-image/3f3841a4-699e-4ad5-b746-0b3ed42224a4>





Challenges

- Legal and ethical challenges may also affect the ability to perform prospective harmonization (differences in international and national laws)
- Language differences in terminology
- Implementing multiple metadata standards in repositories

Thank you!

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<https://mostwiedzy.pl/en/>