KDI : **Knowledge and Data Integration**

Developing a KG on Healthcare Facilities

KDI 2020 Project Proposal

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Healthcare Facilities Domain

- Facilities are geospatial infrastructures which are crucial to the efficient and effective delivery of support services for the organizational ecosystems that they serve, with the ultimate purpose of improving the quality of life of people and the productivity of the core business.

- Facilities can be of diverse nature considering the services they provide:- **Healthcare Facilities** (Hospitals, Residential Care Homes etc.), Educational Facilities (different departments and administrative arms of universities), Tourism Facilities etc.

- The aim of the project is to create a modularized Knowledge Graph (KG) on healthcare facilities for data integration, with a particular focus on its interoperability with the Geospatial domain, using the iTelos Methodology.

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Competency Queries

To provide a glimpse, competency queries which inform the inception of the development of the KG on healthcare facilities can be like:

- How many designated hospitals are there in a particular province for treating COVID-19? What are their names and addresses ?

- What are the different Alzheimer's Care Homes in Trentino Alto-Adige?

- .....

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Standards

To follow the standards adopted in the datasets collected:

- INSPIRE

- GTFS

- ISO 41001:2018

- HL7 FHIR FacilityCodes

- .....

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Knowledge Resources

The reference knowledge resources for the task are:

- The Geo-eTypes Ontological Model

- The GTFS Ontology

- .....

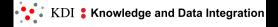Also take a look at:- Linked Open Vocabularies (LOV) and schema.org

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Data Resources

- Open Data Trentino (for localisation in Trentino, Italy)

- European Data Portal

- Also by web scraping from relevant websites (if needed)

- .....

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Outcomes

- Extended set of standard and terminologies supported with respect to healthcare facilities

- A generic KG and a set of localised KGs defined to support and integrate diverse data on healthcare facilities

- Datasets on healthcare facilities, cleaned and well formatted, aligned with the knowledge used to integrate them

- .....

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