KGE - Knowledge Graph Engineering

Trentino
Urban Transportation

KGE 2023 Project Proposal

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Project Objective

- This project considers the **Trentino Urban** region as the environment in which data about **transportation services** should be integrated by building a **Knowledge Graph (KG)**.

- Such kind of data can encode the information about *public transportation services, vehicles, bus stations, agencies, stops, transfers, trips* and other information supporting the movements in the region.

- The aim of the project is to create a KG which can provide information about the Trentino's transportation services. This objective will be achieved through the **iTelos methodology** which facilitates creation of a (sequence of) transportation Knowledge Graphs (KG) integrating data from different data sources.

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Purpose

The final (sequence of) transportation KGs can be used to provide a general purpose service helping the users (for example tourists) to find information about the transportation services in the urban region of Trentino. This purpose, for instance, can be described in the form of the following user request:

> *"A service which help the users to reach different points of interest in urban Trentino exploiting different transportation services."*

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Data Resources

The data resources provided to achieve the project's objective are:

- **Trentino Transporti** :
  https://www.trentinotrasporti.it/open-data

- **Open Data Trentino** :
  https://dati.trentino.it/group/mobilita

- **Open Mobility Data** :
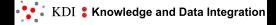 https://openmobilitydata.org/p/trentino-trasporti-esercizio/613

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Schema Resources

The reference schemas provided to achieve the project's objective are:

- **GTFS Static (for modelling transportation)** :
  GTFS Static

- **iCal (for modelling time)** :
  iCal

- **INSPIRE (for modelling space)** :
  INSPIRE

- **schema.org (for modelling common concepts)** :
  schema.org

- **DCAT2 (for modelling metadata)** :
  DCAT 2

KDI : Knowledge and Data Integration

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