



**KDI** ● **Knowledge and Data Integration**

# Developing a KG of Personal Tourist Events

**KDI 2020 Project Proposal**

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## Personal Tourist Events

- Smartphones are powerful data-centric gadgetry facilitators to understand their user's personal life patterns. In case of a tourist, for example, it can help to pin-point where a tourist goes and can possibly go, possible amusement activities, and to exploit this knowledge to support the tourist's itinerary.
- Personal tourist events are focused along four macro cardinals: **Spatial** (location patterns); **Temporal** (time patterns); **Personal** (behavioral patterns), and **Social** (interaction patterns).
- The aim of the project is to create a modularized Knowledge Graph (KG) for integrating data on personal tourist events, 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 personal tourist events can be like:

- Which are the top five mountain huts visited by European tourists in Trentino ranked by food and ambience?
- Which are the most busiest time-slots for a particular nature park as observed over a specific period of time (a week/a month etc.)?
- .....

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# Standards

To follow the standards adopted in the datasets collected:

- INSPIRE
- GTFS
- iCal
- .....



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# Knowledge Resources

The reference knowledge resources for the task are:

- The Geo-eTypes Ontological Model
- The GTFS Ontology
- The W3C Time Ontology
- .....

Also take a look at:- [Linked Open Vocabularies \(LOV\): Subset on Events, schema.org](#) and [Semantic Sensor Network Ontology](#).

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## Data Resources

- [European Data Portal](#)
- Data gathered from smartphones or other sensor-points (IoT)
- Also by web scraping from relevant websites (if needed)
- .....

**It is to be noted that features of the dataset(s) exhibiting personal identification markers need to be compulsorily anonymized.**

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## Outcomes

- Extended set of standard and terminologies supported with respect to personal tourist events, and event patterns in general
- A generic KG and a set of localised KGs defined to support and integrate diverse data on personal tourist events
- Datasets on personal tourist events, cleaned and well formatted, aligned with the knowledge used to integrate them
- .....



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