Consortium

10 partners (6 Europe, 1 Canada, 3 Brazil)

Coordinator: Chiara Renso | Consiglio Nazionale delle Ricerche IT

- National Research Council - CNR, IT
- Ca' Foscari University of Venice, IT
- University of Pireaus Research Center, GR
- University of Versailles Saint-Quentin, FR
- Harokopio University of Athens, GR
- Municipality of Thira, GR
- Federal University of Santa Catarina, BR
- Federal University of Cearà, BR
- Pontificial University of Rio de Janeiro, BR
- Dalhouise University, CA

Consiglio Nazionale delle Ricerche

150 1868 2018
Università Ca'Foscari Venezia

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DE SANTA CATARINA

PUC RIO

MASTER

Multiple ASpect TrajEctoRy management and analysis

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Master Project H2020

The overarching objective of the **MASTER** (Multiple ASpects TrajEctoRy management and analysis) project is to form an **international and inter-sectoral network** of organisations working on a **joint research programme** to define **new methods** to build, manage and analyse **multiple aspects semantic trajectories**. We convey the idea that pure movement data can be enriched with multiple heterogeneous contextual aspects. These aspects are intimately interconnected and should be referenced as a whole as **holistic trajectories**.

We propose methods to analyze and infer knowledge from holistic trajectories, considering as vital issues the **privacy and big data dimensions**. We will be driven by potential market opportunities benefitting the European society in the field of **tourism, sea monitoring and public transportation**.

The MASTER project in 5 questions:

How can we create and manage holistic trajectories?
We investigate methods for managing and building semantically rich trajectories from heterogeneous and multidimensional data.

How can we infer interesting knowledge from large amounts of holistic trajectories?
We study data analysis methods capable of taking into account the different aspects of holistic trajectories. We focus specifically on: similarity analysis, clustering, graph analysis, prediction and recommendation.

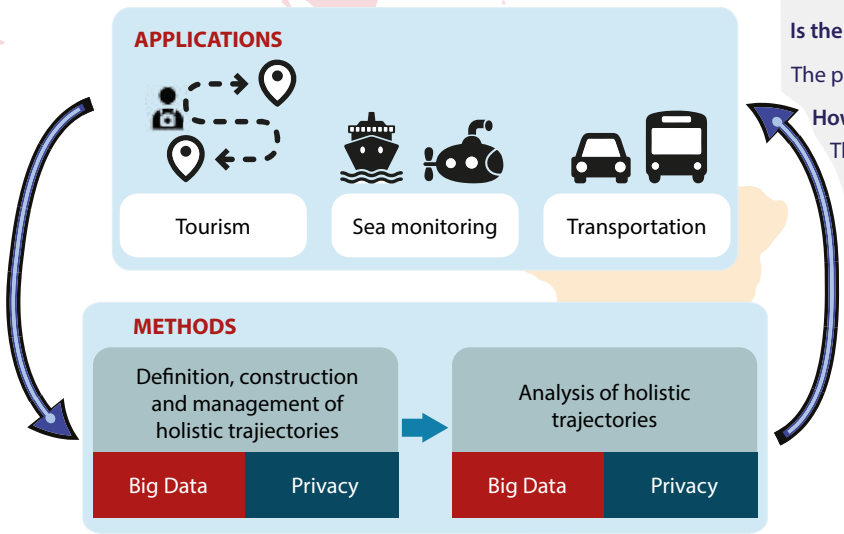**Which applications benefit from the analysis of holistic trajectories?**
We assess the impact of the holistic trajectories analysis methods in the tourism, sea monitoring and public transportation domains.

Is the privacy preserved?
The project develops methods based on *privacy-by-design*.

How can we deal with the Big Data characteristics?
The storage and analysis methods will pose emphasis on efficiency and large scale data management.

APPLICATIONS

Tourism | Sea monitoring | Transportation

METHODS

Definition, construction and management of holistic trajiectories

Big Data | Privacy

Analysis of holistic trajectories

Big Data | Privacy