

# MASTER

## Multiple ASpects Trajectory management and analysis



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.

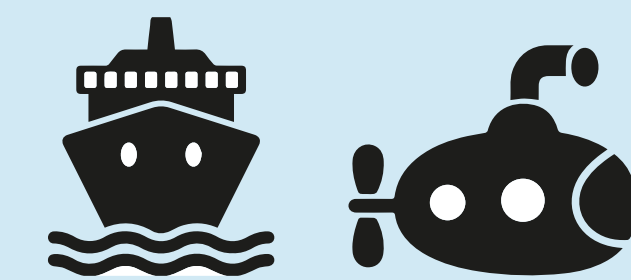
### The MASTER project in 7 questions:

- 1 What are the holistic trajectories?**  
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.
- 2 How can we create and manage holistic trajectories?**  
We investigate methods for managing and building semantically rich trajectories from heterogeneous and multidimensional data.
- 3 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.
- 4 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.
- 5 Is the privacy preserved?**  
The project develops methods based on *privacy-by-design*. The consortium is supported by an Independent Ethics Advisor, Prof. Bettina Berendt, and an Ethical Committee.
- 6 How can we deal with the Big Data characteristics?**  
The storage and analysis methods will pose emphasis on efficiency and large scale data management.
- 7 Who are our stakeholders?**  
We will be driven by potential market opportunities benefitting the European society in the field of tourism, sea monitoring and public transportation.

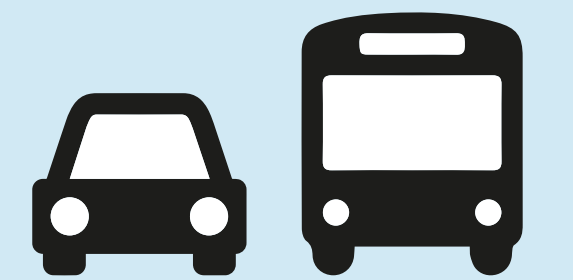
### APPLICATIONS



Tourism



Sea monitoring



Transportation

### METHODS

Definition, construction and management of holistic trajectories

Big Data

Privacy

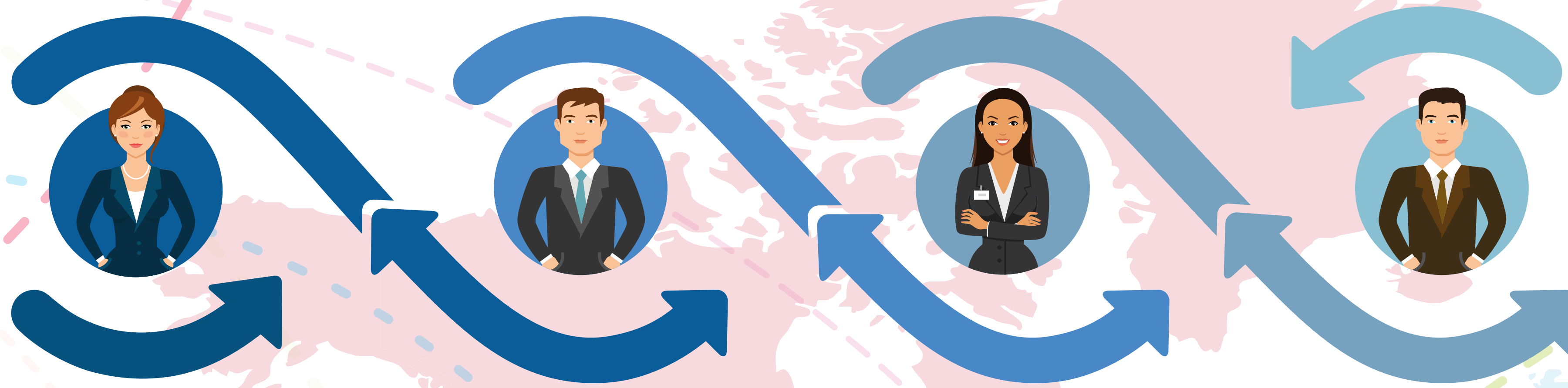
Analysis of holistic trajectories

Big Data

Privacy



MASTER is a *Marie Skłodowska-Curie Actions* - RISE project - coordinated by Chiara Renso, ISTI-CNR- for boosting the career perspectives of researchers through secondments of staff to international partners and non academic sector to work jointly in a **research and training program**.



EU partners:  
Consiglio Nazionale delle Ricerche IT  
University Ca' Foscari Venice IT  
University of Versailles Saint-Quentin FR  
University of Piraeus Research Center GR  
Harokopio University of Athens GR  
Municipality of Thira GR

Canada:  
Dalhousie University

Brazil:  
Federal University of Ceará  
Pontifical University of Rio de Janeiro  
Federal University of Santa Catarina

### Consortium

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



Graphic design: [beatrice.rapisarda@isti.cnr.it](mailto:beatrice.rapisarda@isti.cnr.it)

[www.master-project-h2020.eu](http://www.master-project-h2020.eu)

[master-info@isti.cnr.it](mailto:master-info@isti.cnr.it)

Master Project H2020

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