Intermodality: future projects

Nommon Solutions & Technologies

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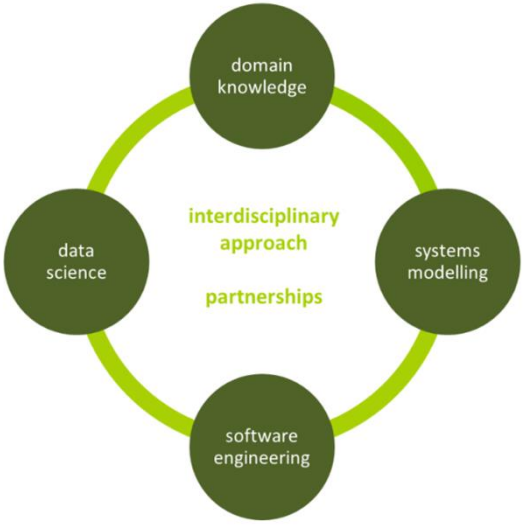
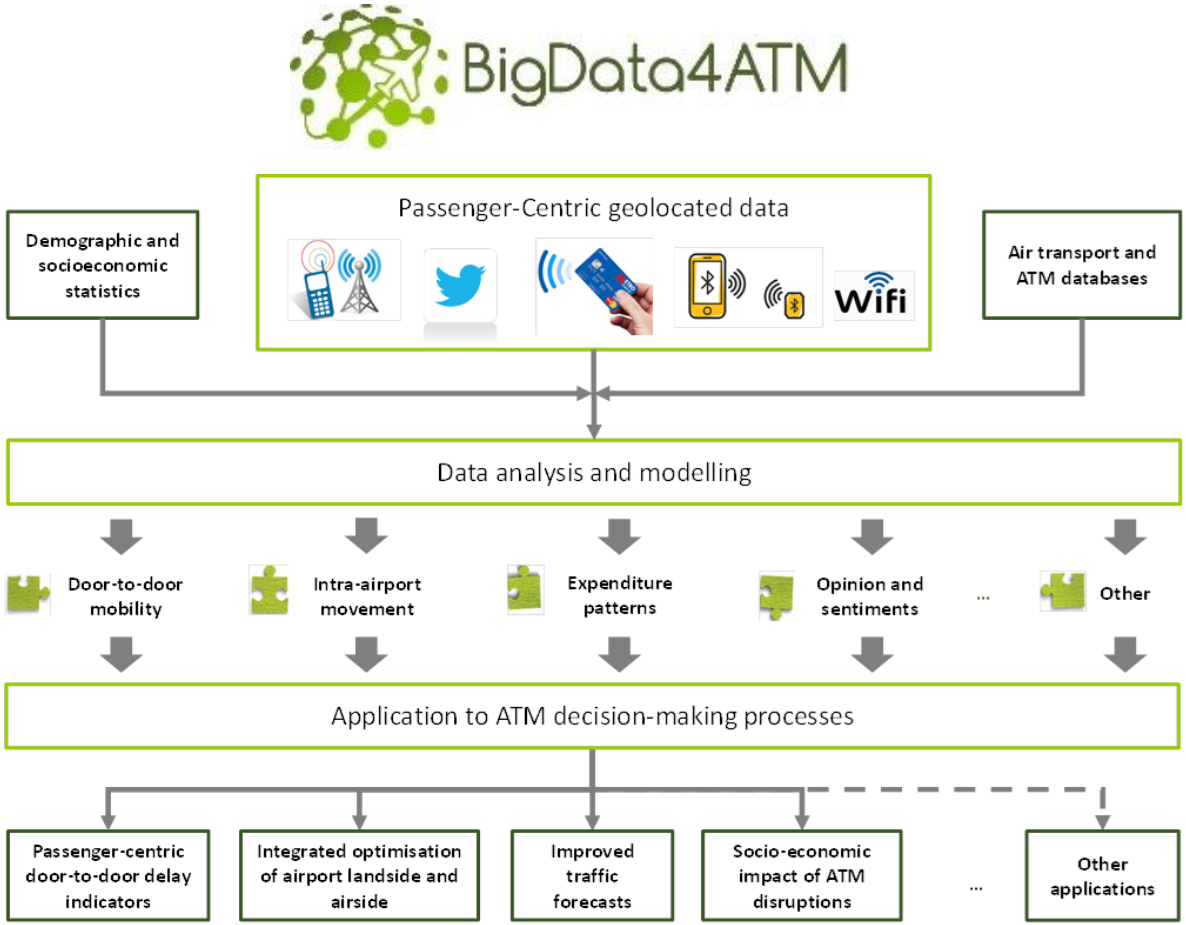
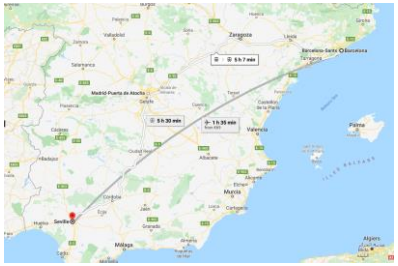
Who are we?

- Technology company based in Madrid
- Mission: assist our clients in decision-making by providing them with best-in-class information, quantitative analysis and decision support products and services, so that they can assess the impact of alternative strategies and management actions under a range of possible futures
- Research-intensive organisation: 6 projects in SESAR ER4
- 4 Business Units:
  - Transport & Mobility
  - Aviation
  - Kineo Mobility Analytics
  - New businesses



Previous research



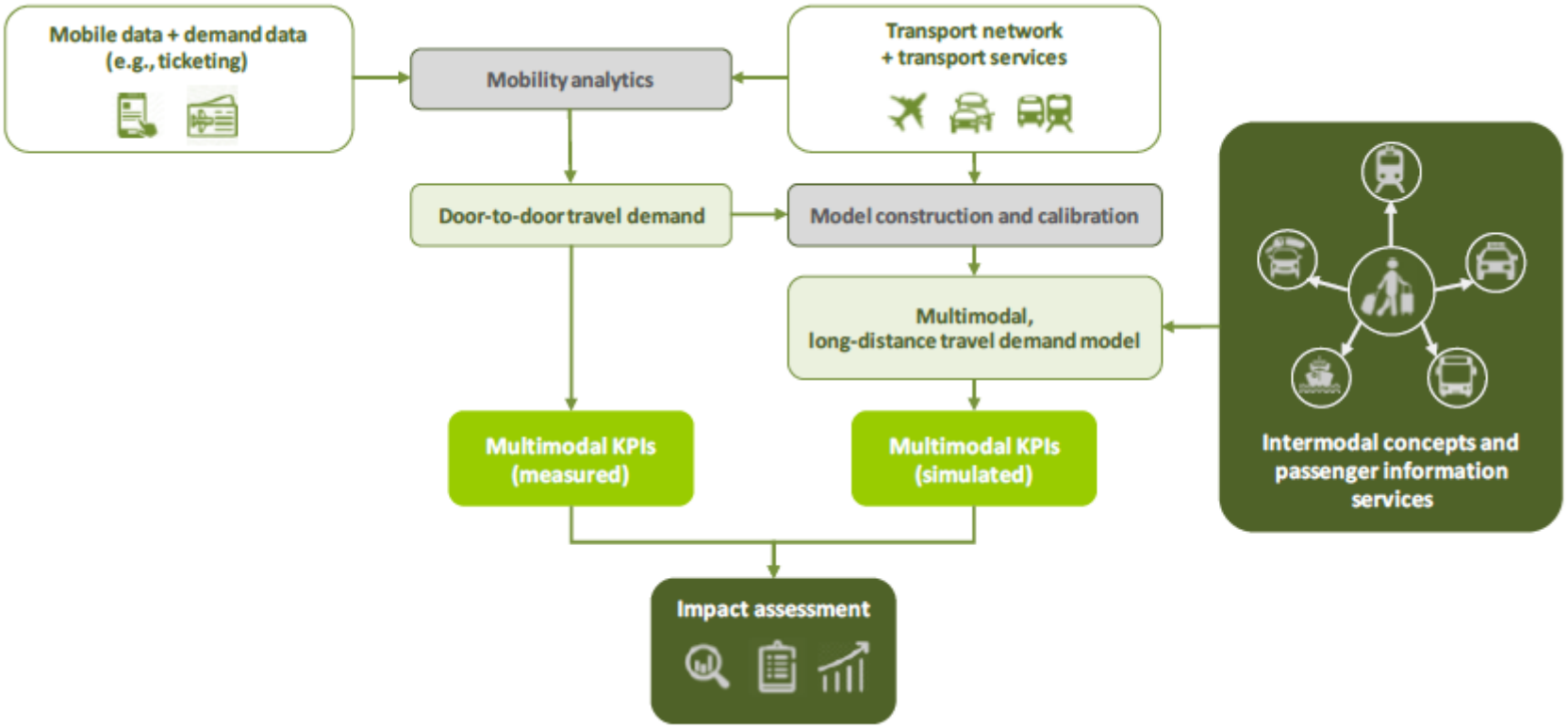


SESAR ER4 TRANSIT

The goal of TRANSIT is to develop a set of multimodal key performance indicators (KPIs), mobility data analysis methods and transport simulation tools allowing the **evaluation of the impact of innovative intermodal transport solutions** on the quality, efficiency and resilience of the door-to-door passenger journey.

1. Propose **innovative intermodal transport solutions** based on information sharing and coordinated decision-making between air transport and other transport modes.
2. Develop **multimodal KPIs** to evaluate the quality and efficiency of the door-to-door passenger journey.
3. Investigate **new methods and algorithms for mobility data collection, fusion and analysis** allowing a detailed reconstruction of the different stages of long-distance multimodal trips and the measurement of the new multimodal KPIs.
4. Develop a **modelling and simulation framework for the analysis of long-distance travel behaviour** that allows a comprehensive assessment of intermodal solutions in terms of the proposed multimodal KPIs.
5. Assess the **expected impact of the proposed intermodal concepts** and derive **guidelines and recommendations** for their practical development and implementation.

SESAR ER4 TRANSIT

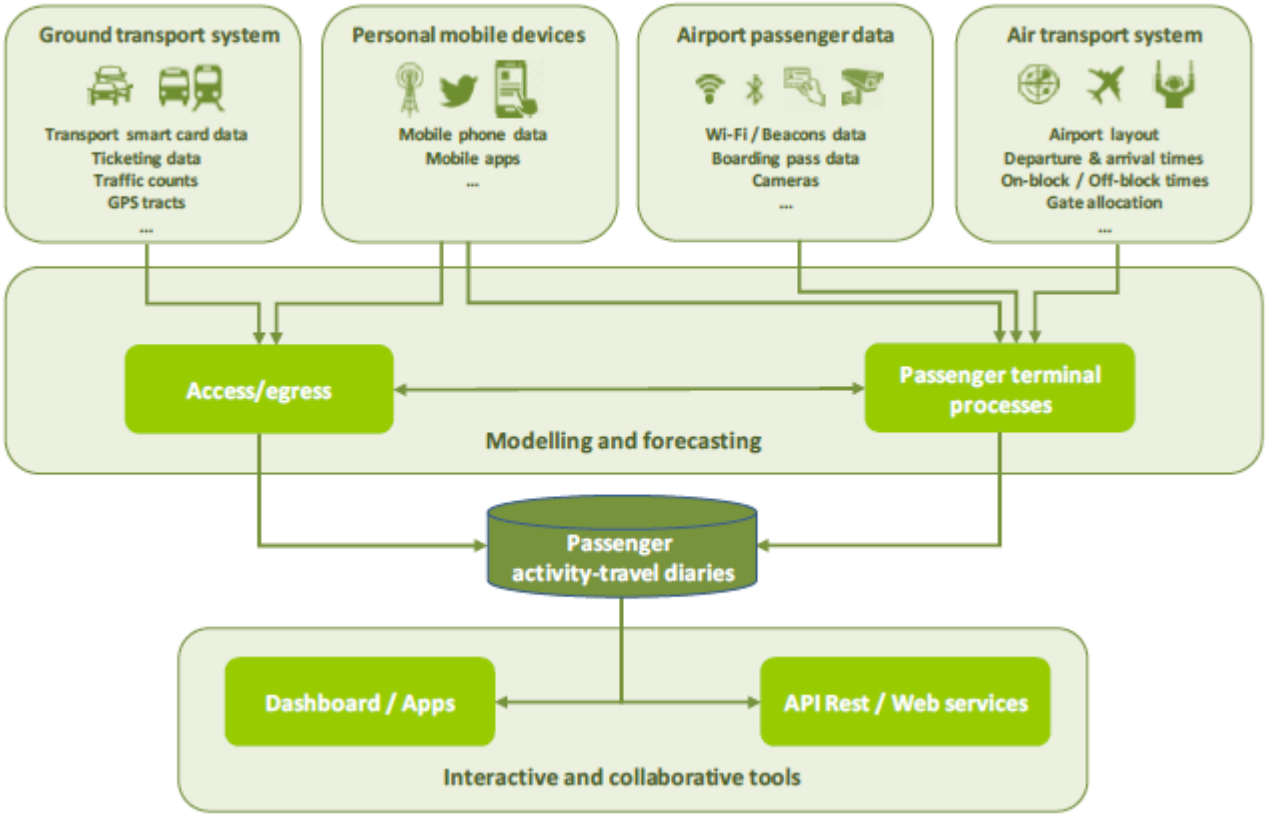


SESAR ER4 IMHOTEP

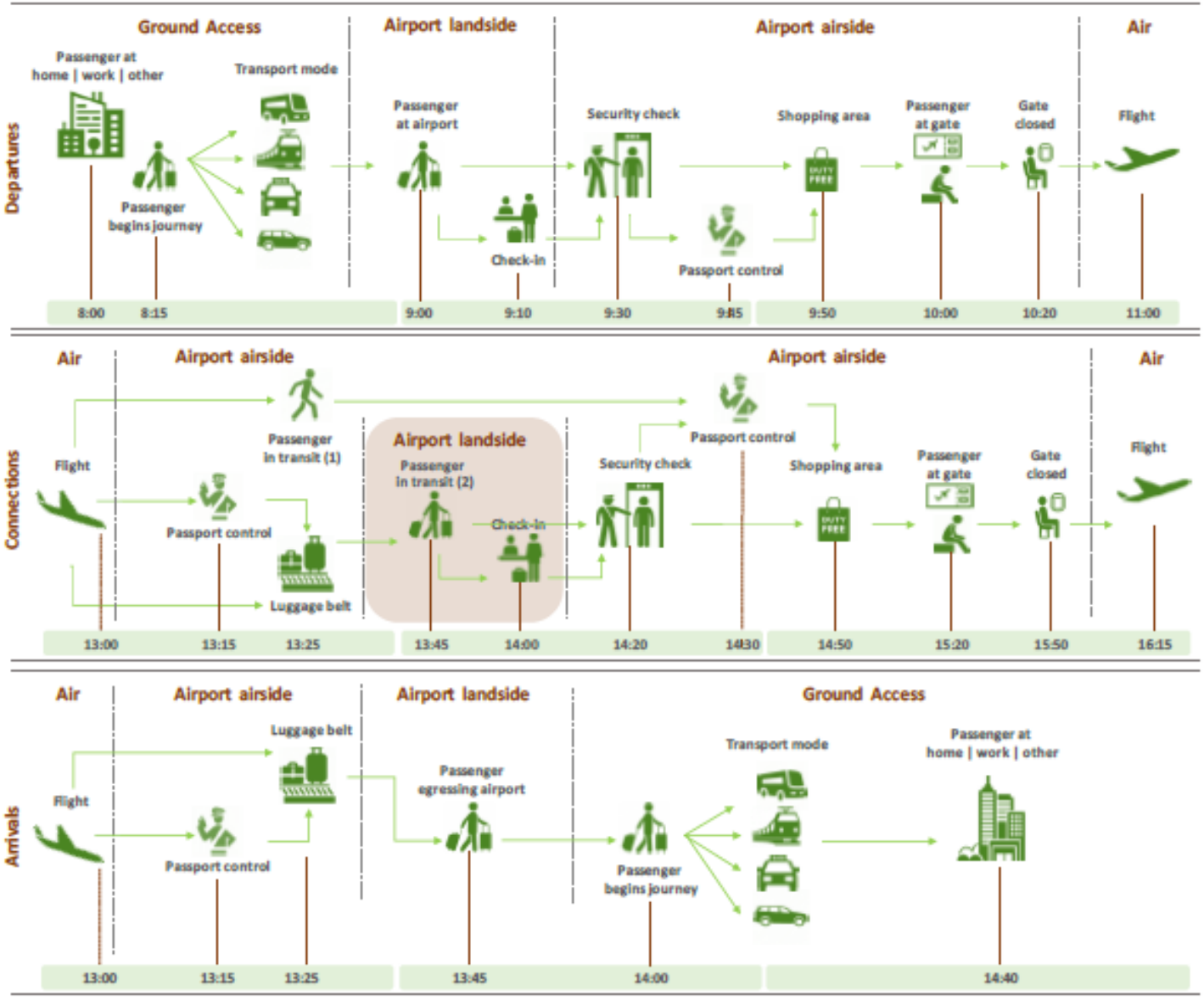
The goal of IMHOTEP is to develop a concept of operations and a set of data analysis methods, predictive models and decision support tools that allow information sharing, common situational awareness and **real-time collaborative decision-making between airports and ground transport stakeholders**.

1. **Propose a concept of operations for the extension of airport collaborative decision-making to ground transport stakeholders**, including local transport authorities, traffic agencies, transport operators and mobility service providers.
2. **Develop new data collection, analysis and fusion methods able to provide a comprehensive view of the door-to-door passenger trajectory** through the coherent integration of different types of high-resolution passenger movement data collected from personal mobile devices and digital sensors.
3. **Develop predictive models and decision support tools** able to anticipate the evolution of an airport's passenger flows within the day of operations with the aim of enabling real-time collaborative decision-making between airports and ground transport stakeholders
4. **Validate the proposed concept and the newly developed methods and tools** through a set of case studies conducted in direct collaboration with airports, local transport authorities and transport operators

SESAR ER4 IMHOTEP



SESAR ER4 IMHOTEP



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