TT aims to demonstrate, in a realistic, measurable, and replicable way the transformations that big data will bring to the mobility and logistics sector.

TT aims to bring about a demonstrated increase of productivity and demonstrable impact in seven pilot areas, covering areas of major importance for the transport and logistics sector in Europe.
Transport Domains / Pilots

- **Smart Highways (WP4)**
  - Load Balancing in Malaga
  - Load Balancing for Norte Litoral

- **Sustainable Connected Vehicles (WP5)**
  - Sensing Passenger Cars
  - Sensing Trucks

- **Proactive Rail Infrastructures (WP6)**
  - Predictive Rail Asset Management
  - Predictive High Speed Network Maintenance

- **Ports as Intelligent Logistics Hubs (WP7)**
  - Valencia Sea Port
  - Duisport Inland Port

- **Smart Airport Turnaround (WP8)**
  - Smart Passenger Flows (Athens)
  - Smart Turnaround (Malpensa)

- **Integrated Urban Mobility (WP9)**
  - Integrated Urban Mobility & Logistics in Tampere
  - Integrated Urban Mobility & Freight in Valladolid

- **Dynamic Supply Networks (WP10)**
  - Shared Logistics for E-Commerce

---

Data-Driving Decision Support
## Value Dimensions for Big Data

### Improved Operational Efficiency

<table>
<thead>
<tr>
<th>Smart Highways</th>
<th>++</th>
<th>++</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Connected Vehicles</td>
<td>++</td>
<td>++</td>
<td>0</td>
</tr>
<tr>
<td>Proactive Rail Infrastructures</td>
<td>++</td>
<td>+</td>
<td>0</td>
</tr>
<tr>
<td>Ports as Intelligent Logistics Hubs</td>
<td>++</td>
<td>+</td>
<td>0</td>
</tr>
<tr>
<td>Smart Airport Turnaround</td>
<td>++</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Integrated Urban Mobility</td>
<td>++</td>
<td>++</td>
<td>0</td>
</tr>
<tr>
<td>Dynamic Supply Networks</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>
INITIAL RESULTS IN LOGISTICS

Connected Trucks pilot – Improved Operational Efficiency

Truck corridor between Amsterdam and Frankfurt with alternative routes and points of interests along the corridor

With the help of Big Data and data analytics, it can be improved the operational efficiency of these processes.

After the analyses the chose of a specific route in the corridor not only lies on the distance or the driving time.

- stopping times at specific points
- seasonal trends
- costs indications
INITIAL RESULTS IN LOGISTICS

Urban freight logistics: Better customer experience

It is located in Valladolid (Spain) where freight delivery within the city has a great impact on traffic flow

Ensure the sustainability of urban mobility in the city center (City Hall)
Optimise the delivery routes (Freight Companies)

Big Data is used to predict the expected availability/capability of load/unload zones

In addition, Big Data is used to assess the impact of new parking policies in the city centers by discovering new traffic patterns in the routes, behaviors in the routes, etc.
Investigate and suggest shared logistics scenarios in e-commerce to decrease costs and environmental burden and increase customer satisfaction.

Explain the shared logistics concept to increase service level, increase the precision of the future demand and decrease the requirement of extra vehicles routes.

Big Data has allowed us to deduct potential patterns and trends (grouping orders by depositor, category, etc); identify problematic areas (greater volume of cancel or return orders).

It has been applied efficient optimization of algorithms to identify shared logics with shared hubs and Click and Collect micro hubs.

Based on different candidate sets of C&C locations, various optimization procedures show that the delivery time and resulting network costs are drastically reduced as the customer itself is now tackling last mile costs.
OVERALL RESULTS - OPEN DATA PORTAL

Data Portal to facilitate the data exchange in the different domains

The objective of the TT open data portal is to provide the community working on transport data across the different transport domains identified for TT with open datasets that they can reuse for their own purposes, as well as links and metadata to existing datasets that cannot be published under an open data license.

- **160 Data Assets**
- **164 TB Data Volume**

**148 datasets** have been uploaded to the Open Data Portal + 12 additional data assets have been added as private (August 2018).

**Formats**
- HTML, PDF, XLS, XML, JPEG, PBF, SHP

**Licenses**
- Public domain, not open, creative commons, open data commons...
End-Users become aware of the importance of the acquisition of data and the subsequent analysis.