

Overall objective and description



In the framework of the new SUMP, the Municipality of Padua tested an innovative transport solution combining passengers and freight transport (**cargo hitching**) in a real urban ecosystem (**The NEXT System**) in order to assess the impacts of this **new business model**.



Comune di Padova



Testing the integration of modular self-driving pods



The pilot tested **modular self-driving pods** acknowledged as "The NEXT System" on a dedicated lane in the urban area of the Municipality of Padua. It allows the **integration** of passengers and freight to achieve optimized urban mobility efficiency and effectiveness. The Padua pilot brought the opportunity to create a **collaboration/synergy between public and private entities** and develop **new procedures** to obtain external funds from the private sector to obtain external funds from the private sector, in the current legislative framework.

Impact



Drastical **improvement of air quality** and CO₂ emissions reduction, compared with traditional means of transport with an internal combustion engine (Tank to Wheel). The system's modularity determines also an **improvement in transport efficiency**, demonstrating a significant improvement even if compared to electric vehicles. Positive socio-economic impact: significant **savings in the operational costs and travel times**.

Learnings and recommendations



- The implementation of a such disruptive, innovative transport model needs a strong **political commitment** and **coordination/involvement** of the major stakeholders.
- Identify the **relevant stakeholders** adequately, considering the mobility solution implemented and the possible future developments.
- Stakeholders shall not be considered as competitors but involved with an **active role in the economic return process**.
- The transport system can be operated from both, either from the public bodies and or from private operators; if the second one, the scaling-up process could be easier and faster from an **administrative** point of view.
- The implementation of the transport model requires **solid skills and know-how both in logistics and IT** matters.
- The creation of **reserved lanes** increases the overall efficiency and the safety of the innovative transport model.
- Involve **users with different needs** in the development of the booking app.

Data-related advices



Results from the impact assessment and financial feasibility analysis combined in the Stakeholder-based Impact Scoring methodology allowed to identify **adequate policy responses** for the solution.