SENATOR Project

Smart Network Operator Platform enabling Shared, Integrated and more Sustainable Urban Freight Logistics

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Challenges

Urban logistics Topic Challenges for H2020

- Developing value cases for integrated systems of logistics/ freight in urban areas. (Dublin and Zaragoza Urban Living Labs)

- Develop an "On Demand Platform Manager module"

- Cost-effective strategies towards zero emission city logistics (Multi Modal Fleet Manager)

- Achieve better cooperation between suppliers, shippers and urban policymakers (planners). Urban Infrastructure Analyzer Module.
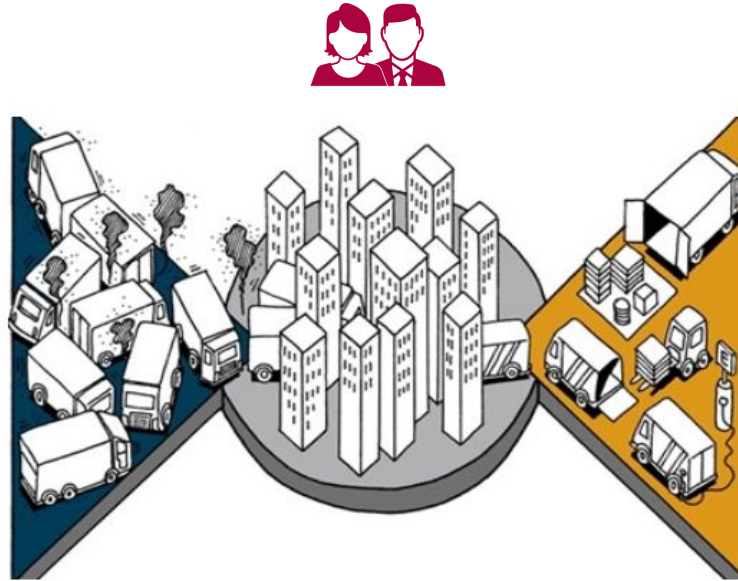
SENATOR in a nutshell

A "Control Tower" for urban logistics that improve urban planning (SULMP) putting together offer and demand.
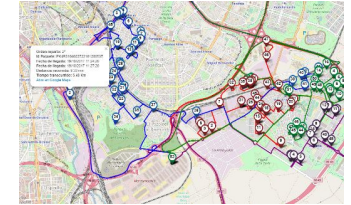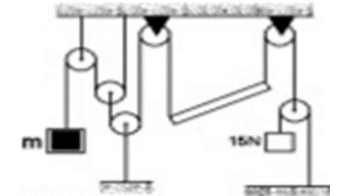
Infraestructure

Fleet Mix

SULMP tool for

- New parking regulations.
- Need for new logistics facilities.

Network optimization

Load balance

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Urban Living Labs (ULLs)

In Zaragoza and Dublin

SENATOR solutions will be tested, readjusted, and improved to fit the real-life environment at small scale within urban environment.

- Run local and regional market consolidation with cross-docking bay area.
- Reduce network overlapping through single operator and enhanced cooperation.
- Smart management for loading bays and parking areas.
- Virtual Kerbside Management.
- Innovative last mile transport modes and low emission deliveries.

Zaragoza Urban Living Lab

We are working in a UCC in Historic Zaragoza City Centre to:

- Run local and regional market consolidation centre with **cross-docking** bay area
- Smart management for **loading bays** and parking areas (ZGZ) Progress.
- **A better regulation of public parking space dedicated to deliveries**
- Allow drivers to **book in advance the reserved parking** spots for their deliveries

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Stakeholder involvement

SENATOR will monitor the **social impact of the project for the different categories of actors involved**: citizens, civil servants, decision makers, retailers, wholesaler, urban planners, etc.

The study on the social impact of the SENATOR project will determine **qualitatively the impact of the smart network operator**. To this end, sociological research methods and techniques are going to be implemented.
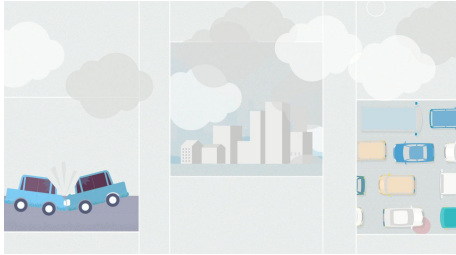

CITIZENS

OPERATORS

SHIPPERS

CITY COUNCILS
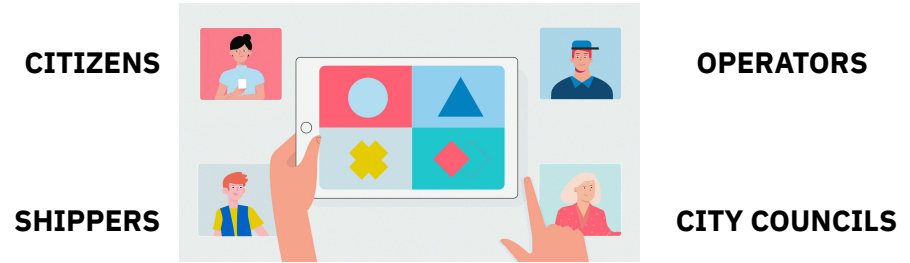
Indicators will measure the following dimensions, among others:
- Public participation
- Well-being
- Citizen empowerment
- Social cohesion

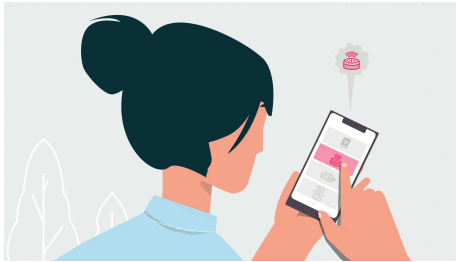**10 co-creation workshops** will be organised from M17 to M44 of the project.

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Stakeholder involvement

Environment concerns society, but sometimes is quite complex…

Provide **clear signals** to **raise social awareness** on environmental impact of delivery logistics. Price use to be the most common and understable.

Keep it simple. Translate the advantages of sustainable transport alternatives into **easy purchase options** (zero emission, low emisión, urgent)
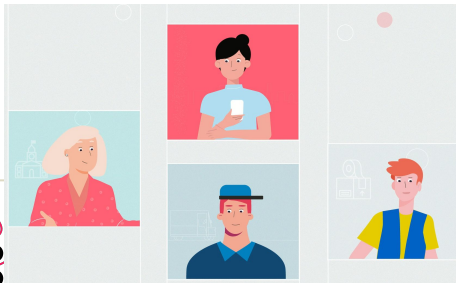
Facilitate the **interaction** between the actors involved in the delivery process.

A Smart City can also react quickly

Problem #1

Problem #2

City Innovation Toolkit

Innovation facilities
Fablabs
Start-up incubators
Civic Labs

Smart Infrastructures
Citizen Card
Urban Data
Apps

Funding
Customers
Shop owners
Retailers' associations

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Main street's Digital Twin

City dashboard to monitor the pulse of retail
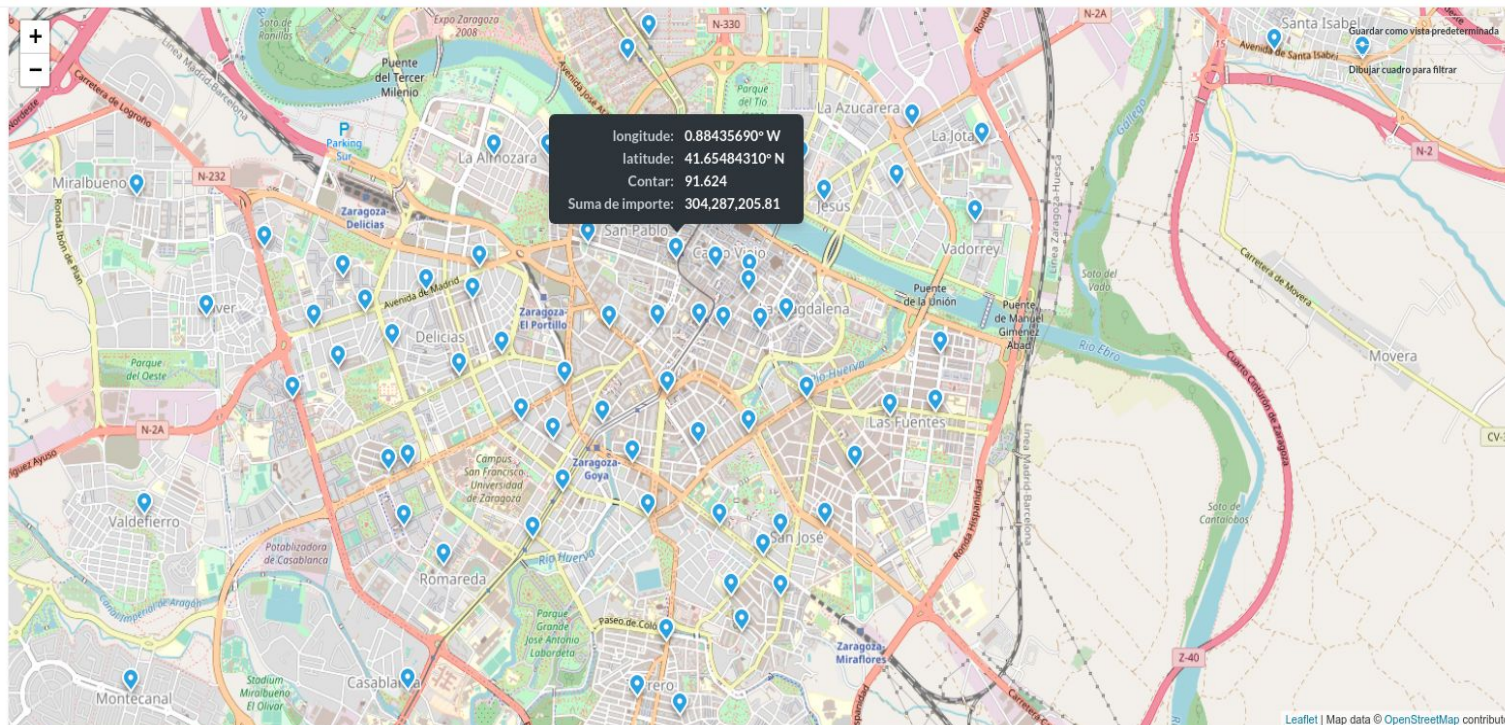
Funding mechanisms

Direct Funding

- Promotion, street actions (markets and zones)
- Digitization (markets and shops)
- Innovation (commercial shops + technology companies): AR, Smart Lockers,

Indirect funding

- Digitization (Chamber of Commerce)
- Shopping (citizens, "groupon")
- Last mile eco-social delivery (Disabled People Associations)