**NAME OF CASE**

Urban freight distribution with electric vehicles in San Sebastián

**KeyWords:**

Freight consolidation and transhipment; Implementation of low emission technologies; Communication between businesses and authorities: coordination, consultation; Innovative vehicles, vessels and equipment; Business to customer (B2C) solutions; Innovative operational solutions; Transport management, fleet management; Monitoring and benchmarking of processes

**Description:**

In San Sebastián (referred to as Donostia in Basque) an urban freight system has been implemented that replaces the use of diesel vans making direct deliveries from a suburban depot. Instead the goods are delivered to a small consolidation centre, before being dispatched to the final customer with a fleet of electric cargocycles. This in intended to reduce the negative impacts imposed on the inhabitants and urban space.

The company Txita and the Municipality cooperated with several partners to set-up and manage this solution.

**Benefits:**

- Reduction in trucks operating in the city.
- Reduction in traffic congestion.
- Reduction in GHG, air and noise pollution.
- Extension of loading and unloading hours without causing problems to the neighbours, mainly in the Old Town.
- Improvement in the ecological situation of the Municipality of San Sebastián.

**Success Factors:**

- Co-operation with local stakeholders
- Carrying out of a feasibility study that included the opinions and ideas of the stakeholders
- The experience gained from the pilot scheme
- Combines new services and regulations with improved enforcement
- Promotion campaign by the mayor to support implementation

**Supported Strategic Targets:**

- Increased efficiency / productivity of logistics processes
- Competitive logistics and transport system
- Ideal utilisation of infrastructure
- Increased competitiveness
- Reduced emissions
- Conservation of resources
- Image

San Sebastián has substantial commercial and social activity, surrounded on its periphery by many industrial sites that generate a significant flow of goods, vehicles and people to the city centre.

Before the project, the city centre had a high volume of traffic, noise and pollution due to freight transport. Some streets in the area exceeded the decibel limit established as a quality target. The distribution of goods was very problematic, with two key areas of conflict: Old Town and City Centre, with many narrow streets, stores and delivery restrictions. There was no harmonization of the loading and unloading times within different sections of the same street, which generated a great deal of confusion among users.

An urban goods distribution research study was conducted in San Sebastián.

Following the recommendations of this study, an implementation plan was developed which included the following measures:

- Freight consolidation centre for last mile distribution of goods
- Clean vehicles for last mile distribution
- Regulatory options to improve loading behaviour
- Increased control in the use of loading bays
- Night distribution protocol
- New technologies to communicate distributors and local shops
Two of these measures were fully implemented:

- **Freight distribution centre:** Municipal warehouse of 500 m² located in the city centre and equipped for reception and dispatch of goods using environmentally friendly vehicles.
- **Bikes for deliveries:** Goods delivery system using electric cargo bikes. These vehicles are sustainable and adapted to the urban situation offering innovative operations in urban freight distribution, extending service hours and eliminating CO₂ and air pollutant emissions.

The actors involved in the project development were the following public administrations, researching institutes and private companies: San Sebastian City Council, IVL-LEE (Basque Institute of Logistics), Gea 21, EHU (Basque University), Txita, and DBUS.

The solution involves the following main elements:

- **Transport**
- **Warehousing**

Main actors involved:

- San Sebastian City Council
- Carriers
- Retailers

More information:

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This initiative enables the distribution of goods without limitation in time windows or locations with access restrictions such as pedestrian area or narrow streets. It is a sustainable transport mode which reduces fuel consumption, improves air quality and reduces noise.

The project is completely developed and operational in San Sebastián. The initiative is transferable, the major constraints being topography (very steep slopes could generate problems for fully loaded bikes), the need for high density of drops (as only short distance trips are viable) and countries with cold winters that make cycling solutions less practical.

Txita (the operator) has already applied the service to various other Spanish cities (i.e. Barcelona: VanaPedal, www.vanapedral.es)