

**Mobilitat i Infraestructures – Ecologia Urbana** Direcció d'infraestructures i Espai Urbà Departament de Grans Infraestructures



## **INMAB**

Interconnection of networks, port, airport and optimal traffic management in the

Metropolitan Area of Barcelona

Project co-funded by the EU within the frame of CEF 2014-2020.

Promoted by the Municipality of Barcelona. Mobility & Infrastructures - Urban Ecology Department.

#### Background:

The "Rondes" (Ring Roads) were built as part of the programme of activities required for the holding of the Olympic Games. They were originally designed as a ring road around Barcelona, which would allow better distribution of internal traffic and access points. When they were put into operation in 1992, there was a marked improvement in the mobility and circulation inside Barcelona.

The Ring Roads have acquired new uses over time, such as a bypass for Barcelona. The respective spatial distributions of the population, concentrated in the north, and their workplaces, concentrated in the south, have created transport flows, which use the *Rondes* to cross the city, adding new traffic and greater congestion. The "Ronda Litoral" is, therefore, the worst affected by traffic jams given that its 2+2 lanes bear volumes of traffic of over 100,000 vehicles/day in sections, lacking hard shoulders and following a winding route. The "Ronda de Dalt", offering 3+3 lanes and a better route and sections, has a demand of 170,000 vehicles/day, currently boasting the largest average daily volume in Catalonia. The Rondas Improvement Project fits into a much more ambitious context of reduced internal traffic in Barcelona that was proposed in the "Barcelona Urban Mobility Plan for 2013-2018", which envisages reducing internal private vehicle traffic in Barcelona from 26.7% in 2011 to 18.6% by 2018.

## Proposed Action:

This action proposes carrying out a series of studies and projects needed for improving the capacity, mobility and safety of the "Barcelona *Rondas*", eliminating bottlenecks and improving connections to the port, the airport, the high-speed rail line and the *trans-European Road Network*. The work to be performed will focus on three areas: *mobility*, *structures and facilities*.







### Objectives:

To address this important change in mobility requires a reconsideration of the functionality and capacity of the "Rondas", as well as the implementation of projects and improvements to reduce the current problems:

- Increase road safety. It is necessary to reduce accidents that occur and reducing the response time and the effects on the road itself and the rest of the road network environment.
- Reduce congestion and lack of capacity in some sections, due to layout designs and insufficient sections and lack of structural connections to town.
- Reduce emissions that current congestion generates in the Rondas, and indirectly reduce the ones in the global city, favouring a more fluid traffic and more lowering of congestion in the downtown area.
- Reduce noise levels.
- Improve connectivity to allow internal traffic good interaction with the Rondas of Barcelona.
   Improved connection links and nodes.
- Improve connections with the airport, the highspeed rail station "Sagrera" (connection with Madrid and the French border) and especially with the Port.
- Improve traffic conditions in the Rondas to ease its use for urban distribution, reducing the passage of these in the inner city.
- Integrate and report on existing and planned charging stations for electric vehicles and intermodal points with the public transport, to promote its use.



# INMAB

Connecting Europe Facility

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### Project structure (2016-2020):

#### **ACTIVITY 1: Mobility Study**

This Study will provide an exhaustive description of mobility patters (origin-destination) & congestion characterisation in the *Rondas*. It will be also focused in Road Safety issues, determining black spots and accident analysis.

**Objective**: OD matrix, road safety diagnosis.

Status (April 2018): Finished. A complementary study based on mobile data is ongoing.

#### **ACTIVITY 2: ITS Study**

Taking into account the act.1 study, this study will analyse applicable ITS solutions to improve the traffic flow conditions, network management, road safety and data quality.

**Objective**: Improvement of global mobility functionality in the *Rondas*.

Status (April 2018): Ongoing.

# ACTIVITY 9: Project Management

Objective: planning, monitoring and control of the whole process of the INMAB project. Interlocution with the different agents, such as: EU-officers, administration, companies, etc., as well as establishing the composition of the personal and material resources required for its development and guaranteeing the quality of the project and the results.

Status (April 2018): Ongoing

## **ACTIVITY 3: Study on Proposals**

From the data obtained in the previous studies, a general definition of proposals is planned, based on future scenarios and associated measures. This study will analyse the feasibility of the scenarios, prioritise and define the areas and actions to include in future documents (informative & construction). This study will analyse the feasibility of the actions, prioritise and define the areas and actions to include in future documents Informative and construction projects.

**Objective:** Characterisation of homogenous stretches (*Sections 1 & 2*) and global actions definition for these stretches.

Status (April 2018): Ongoing.

## ACTIVITY 4: Informative Studies (Section 1)

**Objective**: Informative Studies definition for Section 1.

Status: As planned.

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## ACTIVITY 5: Informative Studies (Section 2)

**Objective**: Informative Studies definition for Section 2

Status: As planned.

# ACTIVITY 6: Informative Studies for Complementary Actions

Objective: Informative Studies definition for Complementary Actions Status: As planned.

# ACTIVITY 7: Construction Projects for Tram 1 & complem. measures

**Objective:** constructive projects of the actions to be carried out in section 1 and complementary measures.

Status: As Planned

# ACTIVITY 8: Construction Projects for Tram 2

Objective: constructive projects of the actions to be carried out in section 2.

Status: As Planned

## Time Line & Budget



#### TOTAL Budget (2016-2020):

- ✓ Global Investment: 2.5 M€
- ✓ EU CEF support (50%): 1.25 M€

#### Contact:

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