

## Title of the challenge:

**Carnet knowledge & research hub - Volkswagen Group Innovation: Urban logistics automated solutions.**

## The company:

Volkswagen Group Innovation, SEAT S.A. & Universitat Politècnica de Catalunya · BarcelonaTech (UPC) jointly research the urban mobility of the future to improve people's lives.

**CARNET** is an open hub for industrial and academic partners from the areas of automotive and mobility research & innovation. It is based in Barcelona and works through project-based collaboration. It focuses on innovative solutions that bridge the gap between academic research and industrial innovation in urban mobility.

See more at: <https://carnetbarcelona.com/>

## Full description\*

Latin American and Caribbean cities (LAC) are congested every day. According to the discussion paper "Congestion in Latin American Cities" of the International Transport Forum: "Latin America has experienced considerable urban growth over the past 40 years, rising from an urban population of 62% of the national total in 1980 to almost 85% in 2019. Cities such as Sao Paulo, Mexico City, Lima, Buenos Aires, Bogotá, and Santiago have doubled in size in that period, consolidating economic solid development and concentrating much of the opportunities of their respective countries.

For example, TomTom measures the difference between the speed of circulation at low demand times, as a proxy for free-flowing circulation, and average circulation speeds throughout the day. Using this metric, Bogotá, Sao Paulo, Mexico City, and Lima are among the 20 most congested cities worldwide. Still, mobility remains one of the biggest concerns of the inhabitants of large cities in Latin America. Congestion is a major challenge for local governments and the inhabitants of Latin American cities. Several of these capital cities feature among the most congested in the international rankings.

Yet, congestion isn't solely about passenger transport; it significantly impacts logistics as well. Innovative trends in logistics systems and their optimization could drastically reduce congestion in South American and Caribbean cities. They define for Latin American and Caribbean (LAC) cities an integral logistic system taking into account several vehicle concepts, among them automated urban robots and other automated transportation means.

## What are we looking for?

We look for innovative automated solutions in logistics services and systems, including new vehicle concepts and their interaction with the rest of the logistics structure.

## What are we offering?

CARNET was funded in 2015 by the Polytechnic University of Catalonia (UPC Barcelonatech), Volkswagen Group Innovation, and SEAT and has a pool of 14 industrial partners from the areas of mobility, public transport, and automotive. This exceptional ecosystem allows CARNET to design and implement innovation programs that help bring together all needed stakeholders for a successful implementation. Being the hub for Volkswagen Group Innovation in the South of Europe and located in Barcelona, CARNET is also involved in several innovation activities to strengthen the links between LAC and the Group.

By participating in this challenge, you can access:

- **Mentoring:** Connect with industry experts to receive guidance, project support, valuable feedback, and enhancements for your solution.
- **Partnership Opportunities:** Explore proof of concepts and gain access to CARNET founders and industry partners where applicable.
- **Know-how:** Leverage the extensive expertise of CARNET members in the realms of automotive and mobility research and innovation.
- **New Market Opportunities:** Obtain support to foster the development of your startup and tap into emerging market possibilities.

Join us in reshaping Latin America and the Caribbean urban logistics, where innovation meets mobility for a brighter future.

## Opportunity area

Smart production.

## Looking for partners from the following regions

Latin America; Caribbean.

## Specific areas

Automotive.

## Technologies

IoT; Connectivity & 5G; Artificial Intelligence; Machine Learning; Virtual Reality; Robotics; Augmented Reality; Sensor & Electronics; Satellite Services (geopositioning, navigation, etc.).