



# Cykleo Bordeaux

A wholly-owned subsidiary of the Keolis Group, Cykleo, is a **major player in bikesharing in France**, that has been working on the development of alternative mobility since 2007. They are involved in all the stages of the project of bicycle installation - from design to operations.

Whether it is self-service, long-term rent or parking, Cykleo offers turnkey solutions to local authorities and businesses.

- Use Case -



# CHALLENGE

Cykleo has been the operator of the self-service bicycle system V3 in **Bordeaux Metropolis** since 2010. The operation of **172 stations** over an area of 579 km<sup>2</sup> requires a truly advanced logistics as well as maintenance and regulation methods.

Every day Cykleo's agents **rebalance the stations** so that the users are always able to find a bike or a place when needed. The regulation rounds are calculated thanks to Cykleo's field experience, using the seasonality of the bicycle usage and the critical hours for station control.

In order to improve its rebalancing strategy, it was necessary for Cykleo to adapt to the reality with more flexibility thus meeting real time needs.



**Use artificial intelligence**  
to optimize rebalancing  
movements



**Provide a better**  
quality of service to users



**Find tools**  
to manage more efficiently  
teams and operations



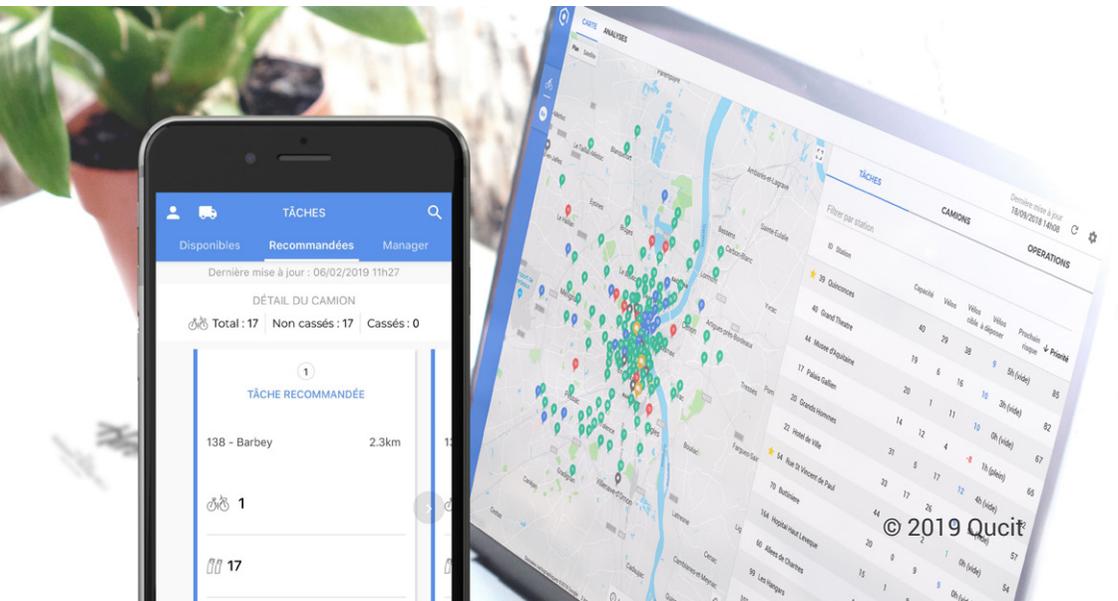
# SOLUTION

To address those business issues, Cykleo found a technological partner, Qucit. Qucit provides logistic products based on the analysis of each city's data and actual circumstances to **predict the shared vehicles demand**.

Therefore Cykleo now uses a single tool to manage its field operations: **Bike-Predict Redistribution**. This tool provides a real-time picture of the rebalancing tasks to be carried out at each station. These actions are executed according to their priority level. Cykleo agents adapt their movements according to these priorities which allows them to optimize their travellings.

The working tools are totally digitized: firstly, there is an elaborated mobile application for the field operators, secondly, there is a web interface offering a multitude of information, namely:

- a **list of tasks to be carried out** (classified according to the priority level)
- a **real-time vision** of the network on the map, updated every minute
- the **list of operations** conducted currently
- an **analysis of the post-event data** allowing to monitor operating indicators (full stations, number of bikes moved, working time).



# IMPACT

## Artificial intelligence used in a business tool

Each agent connects to the application when starting his rebalancing tour rather than getting a list of tasks to perform on a paper. In practice the agents are extremely satisfied and thus support the use of this new digital tool.

## Users and operations optimized management

BikePredict Redistribution automatically provides on-field agents with suggestions for rebalancing to be performed. These recommendations take into account the agent position and the number of bikes left in his truck. The combination of usage statistics, real-time network status, the truck's position and its number of available bikes makes the whole process more efficient and flexible. This is exactly in line with Cykleo's contractual obligations to the metropolitan area.



## **21 % less moved bicycles**

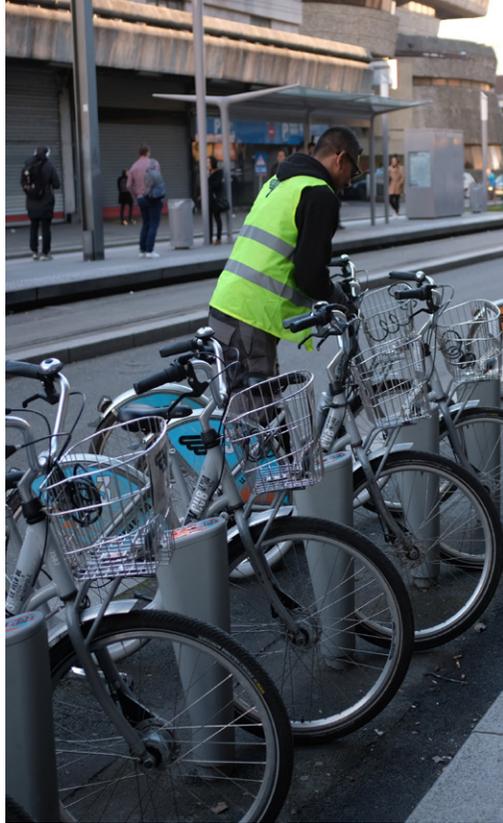
Users demand predictions provided by artificial intelligence has enabled the agents to increase the efficiency of their movements and avoid, for example, unnecessary removal of bicycles at a station. This represents an excellent digital way to optimize operating costs.

## **17% of improved availability**

Demand prediction makes it possible to anticipate situations of full or empty stations.

## **Adaptation to user behaviour evolution**

The scheme is constantly improving. The artificial intelligence model developed by Qucit is based on machine learning, along with recalibration of the models every 3 months. This offers Cykleo a simple and efficient tool, constantly adapted to the evolution of demand without the need to question the tools involved.



# TESTIMONY

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## What is BikePredict Redistribution used for?

*«BikePredict Redistribution allows me to simplify the briefing at the start of the tour, thanks to the general overview. It allows me to prioritize the tasks. Then, my agents follow the mobile application that offers them a choice of effective interventions. It is therefore an important management tool in our daily life. The other major use is training. The new agents are delighted to have in their hands a product that allows them to acquire knowledge of the field more quickly and efficiently».*

## What are the operational results noted since the implementation of BikePredict Redistribution?

*«It is complicated to identify precisely the operational results of this tool, since the use of our bicycles depends on the versatile outside factors. Nevertheless we are witnessing a significant decrease in the number of regulated bicycles. This leads to better handling and minimizing professional risks. This gain is of course not made at the expense of the availability rates. At the same time the new agents can follow the progress and quickly adapt».*

**Nicolas Meillan,**  
Operations manager Sud-Ouest  
Cykleo

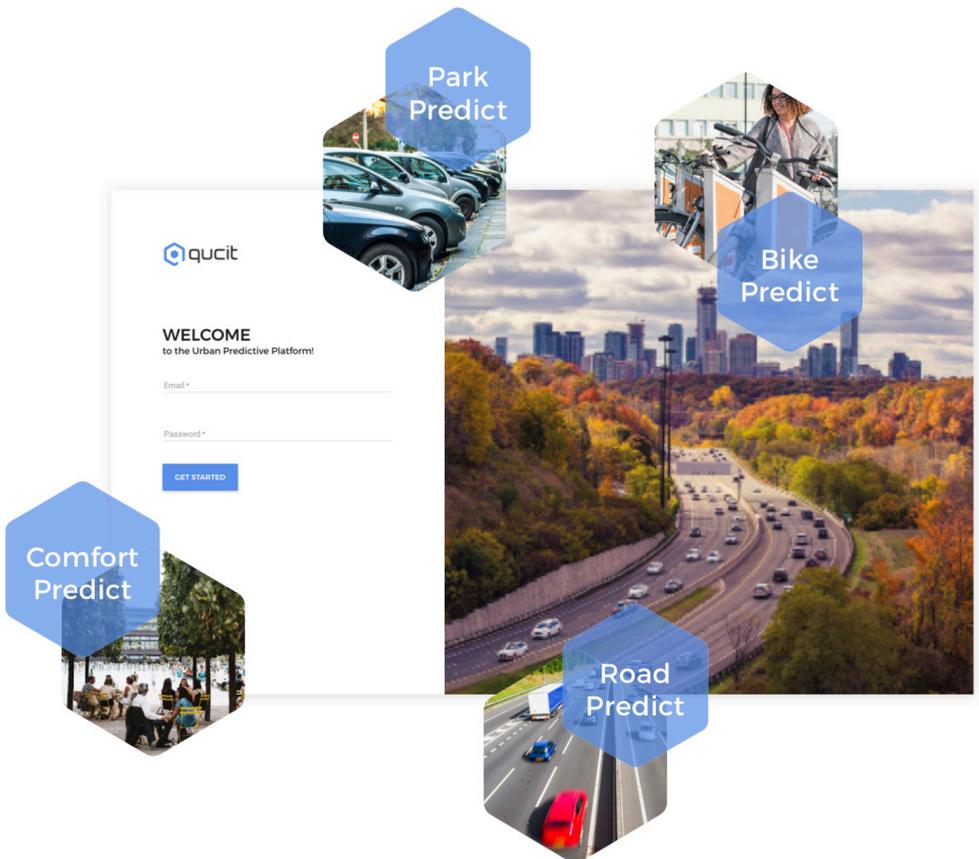
# WHO WE ARE?

Qucit stands for «Quantified Cities». Our aim is to improve the experience of users in cities.

We build digital models of cities and use artificial intelligence to model how urban design impacts human behaviour and feelings.

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**We believe in technological products to improve the organization of cities and the lives of everyone.**





## CONTACT US!



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