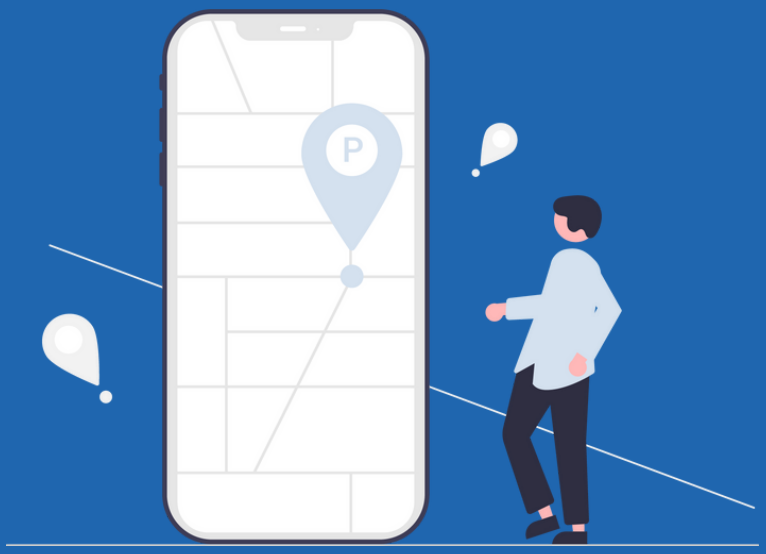
Smart parking for smart cities



INTRODUCTION

Over recent years, Cyprus has seen a dramatic increase in road traffic, which has become a nuisance for many, especially in the key urban cities across the island. Today, everything indicates that it will only worsen, representing an undoubted menace to the quality of urban life for the residents and an equaly severe challenge for the government.

One of the core arising and even contributing factors to this problem is the increasing difficulty in the provision and management of adequate parking to vehicle operators in urban areas. In May 2022, we conducted an independent physical inspection of 13 municipal parking areas in Limassol. Further combined with other external research papers we were then able to quantify the problem as follows:

90%

Estimated rate of parking violations at municipal parking

€10m

Estimated revenue lost annually due to unpaid parking

30%

More pollution created that could be avoided

OUR PROPOSED SOLUTION

Having analyzed the issue, we see that the existing, traditional analog means of parking management, which have been operational for many years, fail to offer a working solution. The current methods have not only proven ineffective but are one of the actual contributors to the overall traffic problem.

We also feel strongly that the solution must not only address the current issues but also pave the way for proactively identifying and preventing new future problems from arising.

With digitalization rapidly progressing across all domains and effectively solving complex problems, we are confident that applying and leveraging innovative technology to solve the Cyprus traffic problem is the way forward.

HOW DOES OUR SOLUTION WORK

Our solution is based on a simple yet logical approach to transitioning from analog to digital parking in Cyprus. This will be achieved by installing specially designed sensors operating on the low-cost LoRaWaN network on every individual parking space. Each sensor operates in real-time and is connected to one primary database, which then allows:

Parking operators - remotely manage all parking-related services, control/collect payments, monitor performance, and even handle parking violations.

Individual drivers - to locate, reserve, and pay for parking in real-time, eliminating the time lost during the search for vacant parking.

WHY CHOOSE OUR SOLUTION?

While it is clear that digitalization can yield unparalleled benefits in almost every domain, the overall ability to achieve meaningful impact also depends on the level of adoption and standardization in the market. We feel strongly that our solution would only serve the citizens of Cyprus to its full capacity if adopted island-wide and would like underline the following benefits of our solution in this regard:

- **Central Database** - our sensors feed live data into a single centralized database, which can be used for smarter and data-driven decisions. It is only logical to establish and keep such data in one location.
- **Low Maintenance** - installing our sensors is extremely easy, non-intrusive, and cost-effective. Its operational costs are minimal thanks to the low power consumption and low-cost LoRaWaN network.
- **Proof of concept** - the sensors and the supporting technology used in our solution were designed and manufactured using funding approved under the Horizon scheme of the European Union. Furthermore, this technology is already in active use across multiple cities in the EU.
- **Versatility** - our sensors can be further adapted for other traffic-related applications such as traffic counters and smart lighting control.