DISCOMON

Environmental Tech
Company

About us

Environmental and Technological Company

Our entrepreneurial spirit means that all our actions stem from experience in the worlds of:
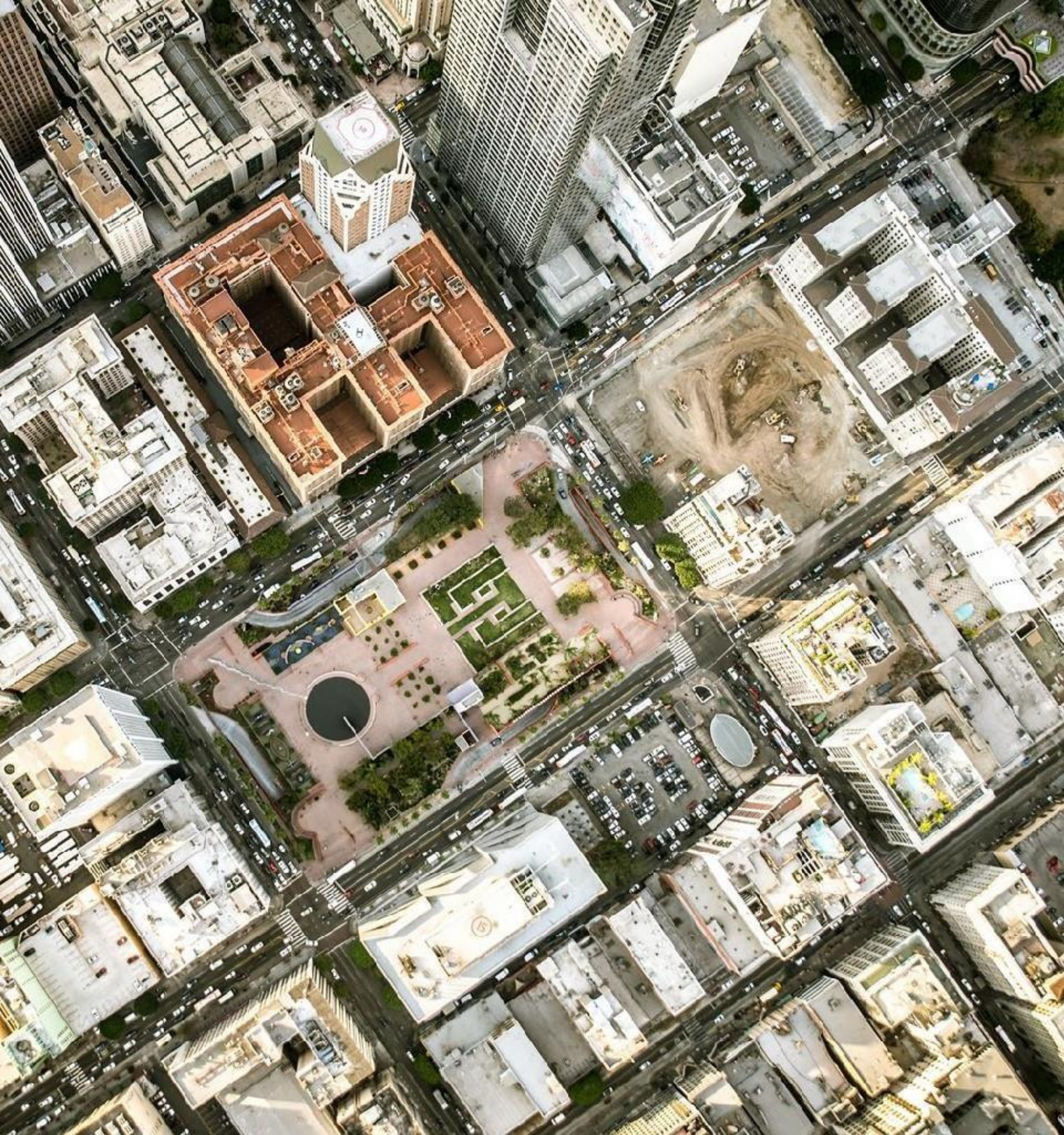
Street furniture, Design, Telecommunications, Pharmaceutical and Chemical industries as well as Engineering.

Our vocation is <u>to unify services for the citizen through IoT</u>.

We want all cities to be
smart and sustainable!

DISCOMON

Green Smartcity

Solutions

Outdoor Air Quality

Measure, diagnose, know the problem in depth and correct it.

Indoor Air Quality

Measure, diagnose, know the problem in depth and correct it.

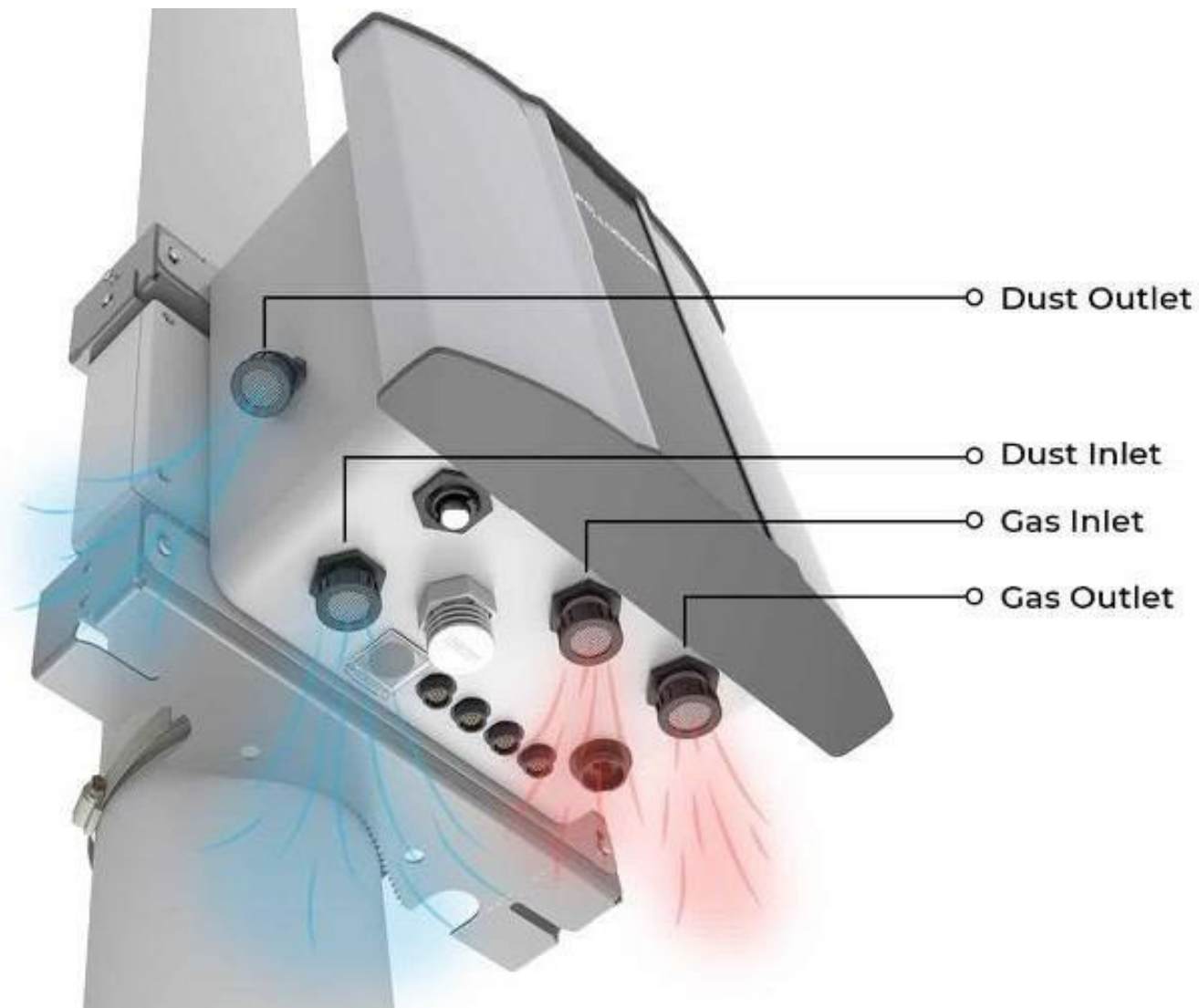## Smartcity Solutions

Thanks to our experience, we are able to create tailor-made solutions according to your needs.

Outdoor Air Quality

Air Quality Sensors

" We measure up to 30 different environmental parameters in real time with 90% accuracy and can combine those required to customise the solution.

Dust Outlet

Dust Inlet

Gas Inlet

Gas Outlet

ATMOSPHERE
Temperature Humidity Light

RADIATION
EM Gamma RF UV

PARTICLES
PM1 PM2.5 PM10

FLOOD

NOISE

WEATHER
Wind Rain

GASEOUS POLLUTANTS
SOx NOx CO O3

SMELL
NH3 H2S

HYDROCARBONS
COVs CH4 CH2O

ENVIRONMENTAL GASES
CO2 O2

OIZOM SPAIN
REDEFINING RESOURCES BY DISGOMON

Hardware based on IoT sensors that monitor environmental quality. Patented e-Breathing Technology, we isolate the sample ensuring almost 90% correlation with reference systems.

Why do customers choose our sensors?
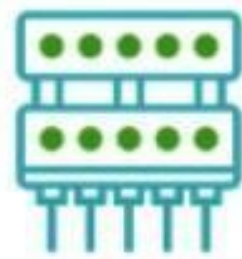
INTEGRATED SENSORS

The Oizom air monitoring system is capable of measuring up to 17 air quality parameters in a single box.

LOW COST

Regarding the purchase of the machine compared to similar machines and minimal maintenance costs, Oizom is the ideal solution for the environmental quality monitoring network.

INTEGRAL SOLUTION

Oizom offers a comprehensive and scalable solution, from accurate monitoring of environmental quality data to advanced data analytics platform for real-time accessibility.

HIGH PRECISION DATA

Thanks to the patented e-Breathing technology, Oizom systems are highly precise and are more than 90% accurate compared to Federal Reference Monitoring Stations (FRM).

EXTREME WEATHER CONDITIONS

It works in extreme climatic conditions with temperatures ranging from -40°C to 60°C and humidity up to 100%.

SUPPORTS MULTIPLE DATA COMMUNICATIONS

Each Oizom air monitoring system is a smart, connected device that supports up to 9 wired and wireless communication protocols.

TRACEABLE CALIBRATION

All Oizom air monitoring systems are laboratory calibrated with traceable gases to ensure maximum accuracy. A laboratory calibration certificate is supplied with each system.

30 ENVIRONMENTAL PARAMETERS

Oizom systems offer the possibility to monitor more than 30 environmental parameters such as dust, toxic gases, odours, noise and weather conditions. Therefore, we have the possibility to realise ad hoc equipment.

ADVANCED DATA MANAGEMENT PLATFORM

Oizom offers air quality software with essential modules such as a real-time dashboard, automated reports, cluster maps, smart alerts and API integrations for effective and timely actions. We can design a comprehensive control panel according to the customer's needs.

Outdoor Air Quality

Outdoor air cleaning

Kien Mou captures CO_2, NO_x, SO_2, PM2.5 y PM10, viruses and bacteria in a sustainable and innovative way.

It also provides an autonomous system in which technological elements and advertising can be incorporated.

KIEN MOU
Tree of Renewal

Do you really know what are you breathing?

Our solution:

KIENMOU - YouTube Video: click here

KIEN MOU

CO₂
SO₂

Reagent

Alkaline earth oxide.
Natural chemical product.
Captures CO2 and SO2.

Filtration

**ACTIVE CARBON FILTERS, PATENTED
NANO FIBRES (CSIC) AND UV-C** Radiation

It retains the most harmful toxics such as **PM 2.5**, **PM10**,
VOCs and **NOx** from traffic jams and industries.
Virus (COVID-19) and **Bacteria**.

IoT - Connectivity

Telecommunication antennas

Bluetooth 5 GHz

Wifi Lifi 2.4 GHz

Text-lite LED

Gas sensors

Online management system

Real-time monitoring and analysis for better management of public services. Data overview, microanalysis dashboard, historical data analysis and mobile application.

Advertising

Run by large advertising companies. The advertising also pays for the maintenance of the structure.
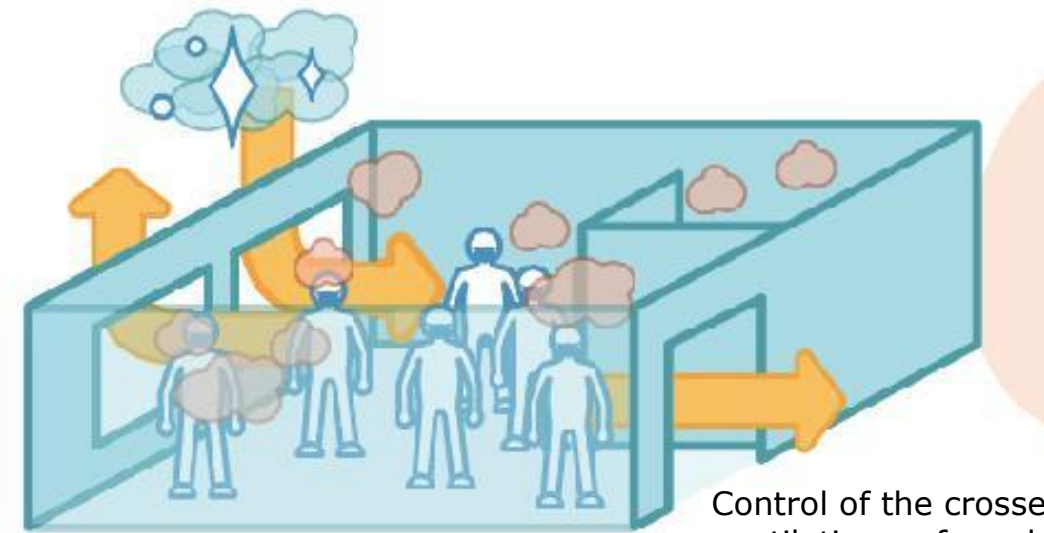
Other components

Fan: Variable ventilation
Humidity: Pleasant cooling effect
Led: Citizen awareness tool

Indoor Air Quality

Air Quality Sensors

CO2, temperature and humidity sensors

Sensor measuring up to 11 parameters in real time, indoor air quality.

It measures CO2 and PM levels, parameters directly related to the degree of need for ventilation in a room. When the levels are exceeded, the cleaning systems are **automatically activated**. They are very easy to install and use.

Control of the crossed ventilation or forced reduction of CO2 concentration

VENTILATION CRITERIA

The ventilation refers to air renewal, that is to say indoor air substitution, potentially contaminated, with virus-free outdoor air.

The air renewal is also called Air Changes per Hour (**ACH**). If a space has 1 ACH, it means that in one hour, goes in that room a volume of outdoor air equal to the volume of the room.

The needed ventilation to reduce the risk of contagion depends on the volume of the room, the number of occupants and his/her age, the activities they carry out, the incidence of cases in the region and the risk wanted to be taken. The Harvard guide recommends **5-6 air renewals per hour**.

ACH (Air Changes per Hour)

6 IDEAL	5-6 EXCELLENT	4-5 GOOD	3-4 MINIMUM	<3 LOW

Indoor Air Quality

24 hours Cleaning Equipment

HEPA Filters: The High Efficiency Particulate Air (HEPA) filters are essential to prevent the spread of **bacterial and viral organisms**; as well as **harmful airborne particles**.

Activated Carbon: It is a porous material that has the ability to capture **organic gases and odours**.

UV-C Radiation: UV-C radiation is known as disinfectant for air, surfaces and water. All **bacteria** and **viruses** tested to date react to UV-C radiation. **The Boston University** has shown that, in laboratory tests, UV-C light sources inactivated 99% of the SARS-CoV-2 virus on a surface with an exposure time of 9 seconds.

Wall installation - Split type

This equipment is ideal for receptions, and places of continuous public services. **Wall installation** (like a **split** air conditioner). Its **installation** is very **simple**, it has just to be hung on the wall and connected to electricity. It can disinfect a **16 m²** room.

Ceiling installation - 3 inlets and 1 outlet

This equipment is suitable for large rooms, meeting rooms, etc. Installation in **false ceilings**: on one side, 1 to 3 air inlets are put when on the other hand, there is 1 outlet with diffusers. Our technicians install it in a very short time without the need for building work. It can disinfect a room of **32 m²**.

Sustainable Mobility

Public IoT stops for public and private bicycles and scooters

VIDEO SURVEILLANCE

Master module

PRIVATE AND PUBLIC BICYCLES AND SCOOTERS

UNIVERSAL PADLOCK

Module with 2 anchorages

"We readjust the stops based on their use."

- Thanks to the camera, we provide **security** and **traceability** at stops.

- **The number of anchorages can be readjusted** over time: They are easily installed in the city by 2 modules (4 vehicles) and can be removed or added on demand.

- The idea is to have **many IoT parking spots in the city** and to readjust them according to usage.

- It is **possible to add helmets** to the anchorage and insurance when registering in the system.

PROJECTS

onroll

IoT parkings for private bicycles and scooters in public areas.

Electric bicycle and scooter rental system for hotels.

Electric bicycle and scooter rental system for tourists.

The system is designed so that students' private bicycles and scooters can be securely anchored at the centres where they study or carry out their activities.

SCHOOLS
CAMPUS
SPORT CENTRES

How does it work?

IoT parkings for private bicycles and scooters in public areas

01 **STUDENTS**
Students who register in the system are given a universal lock and can anchor at the stop

02 **DIGITAL ACCESS**
Works with QR code, APP and/or card

03 **SECURITY**
It is possible to add helmets.

04 **STRUCTURE**
Each stop consists of a master module (access to the system and anchoring of 1 vehicle) and several modules (anchoring of 2 vehicles each)

Rental system of electric bicycles and scooters for **hotels**

ACCESS **01**

The tourist accesses the QR that directs him to a hotel website to download an APP.

USE THE APP **02**

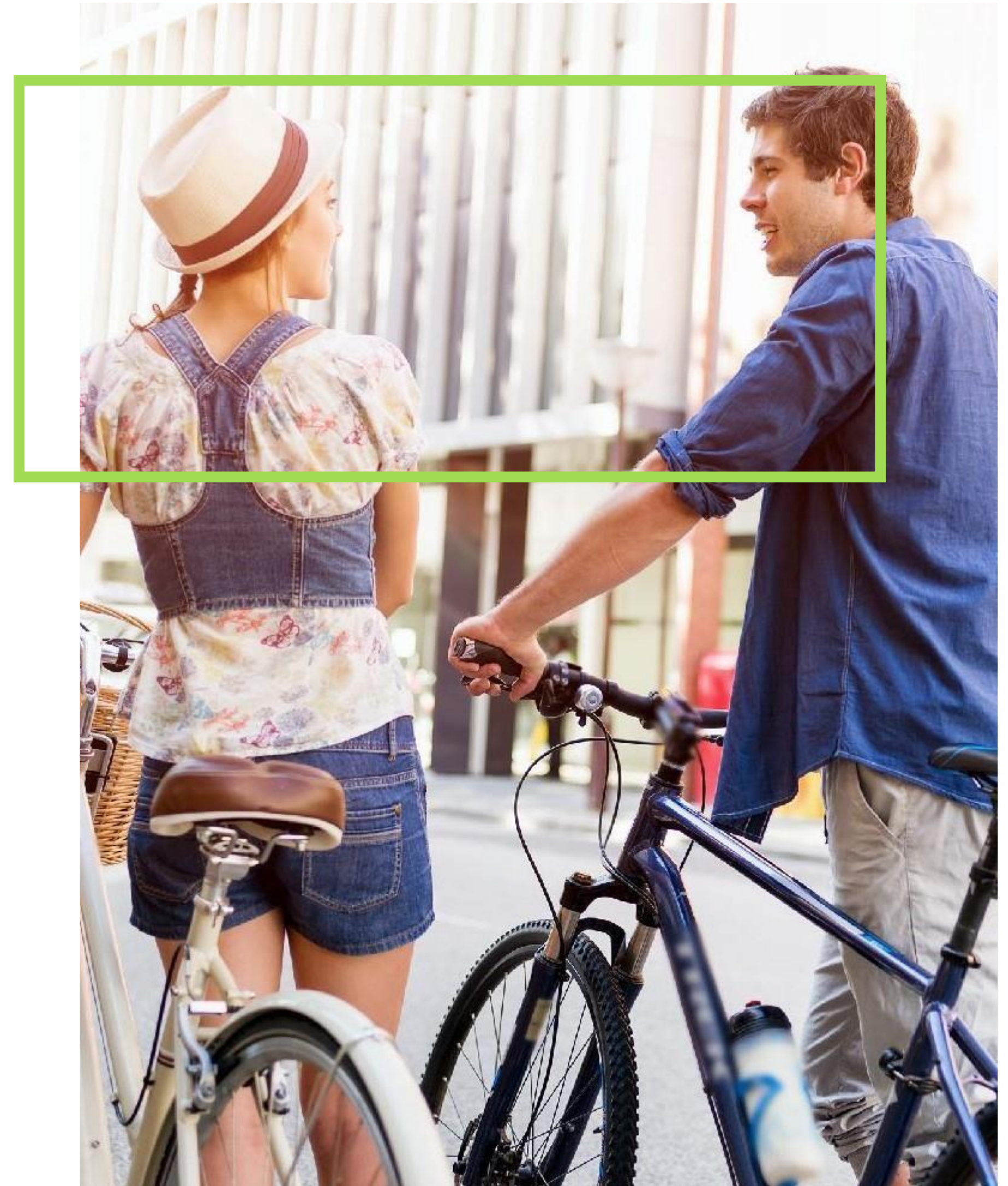This APP knows the stops with their locations and the vehicles you can use.
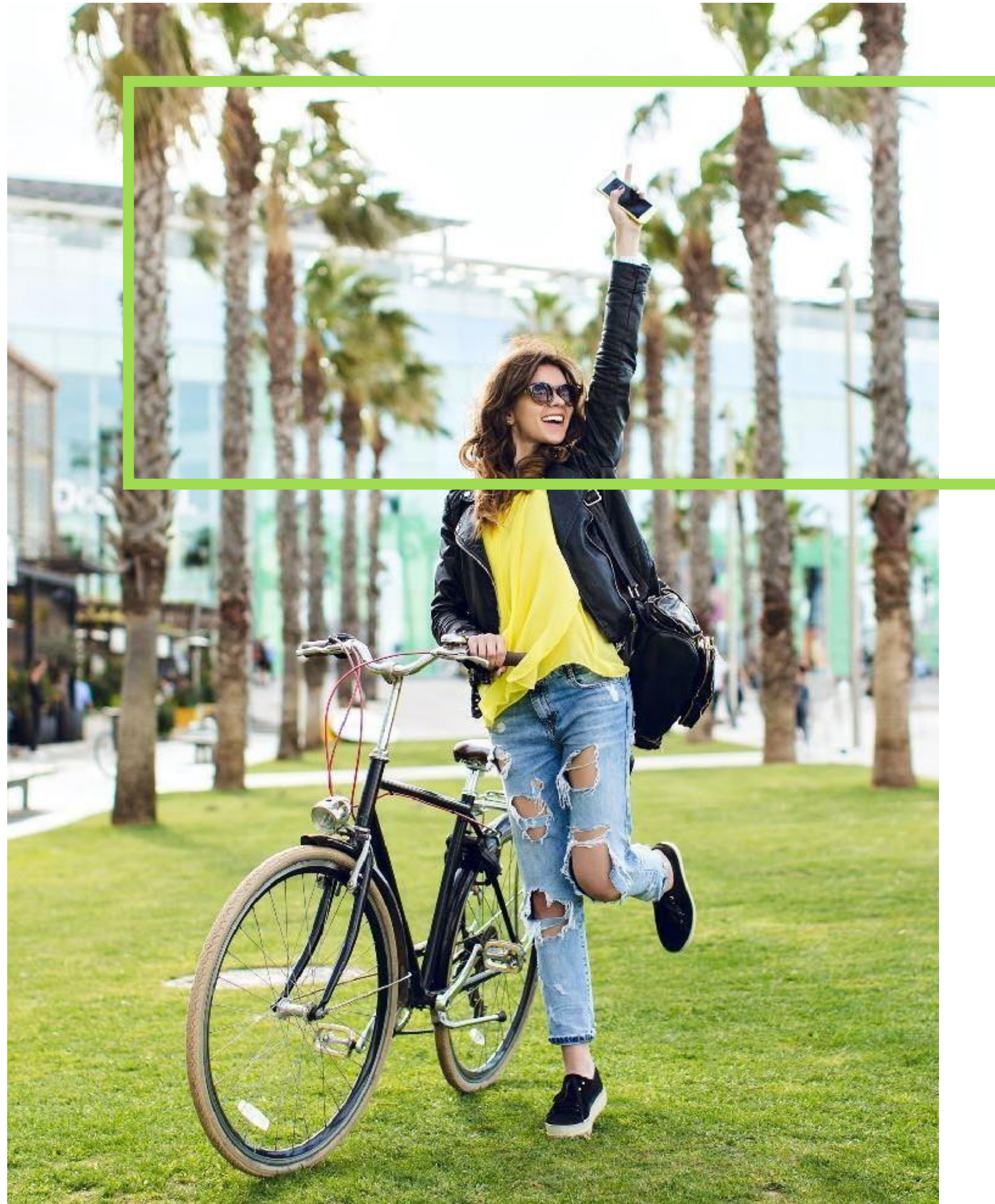
SELECT YOUR VEHICULE **03**

PAY **04**

Payment: hours or days. Choose the time of use and park it at any of the stops.

Rental system of electric bicycles and scooters for tourists

01 **ACCESS**
The tourist accesses the QR that directs him to a website to download an APP.

02 **USE THE APP**
This APP knows the stops with their locations and the vehicles you can use.

03 **SELECT YOUR VEHICLE**

04 **PAY**
Payment: hours or days. Choose the time of use and park it at any of the stops.

Other Solutions

Public services integration:

- **Vehicles localisation**

- **People localisation**

- **Electric cars: public recharging (city), private recharging (parking and shopping centres).**

- **Sport facilities: access control and automation of services.**

- **Information services: 24h procedures.**

- **Energy efficiency: lighting control, air conditioning control and indoor swimming pool control.**

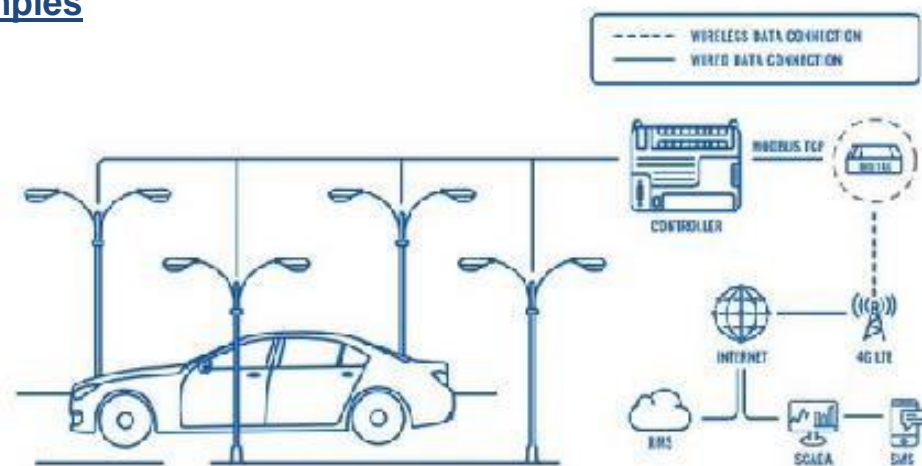- **Led lighting, intelligent panels, etc.**

Smart Lighting

PROEMISA

Differential values:

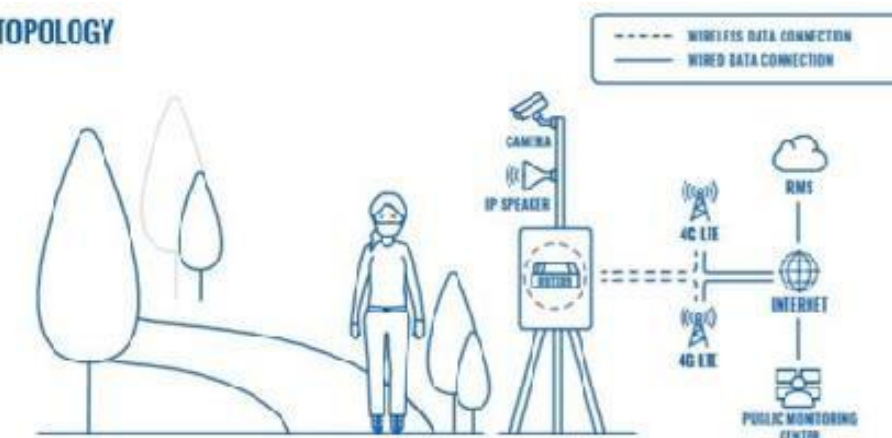- Own technology
- Modern and elegant design
- Variety and guarantee

Ad hoc solutions
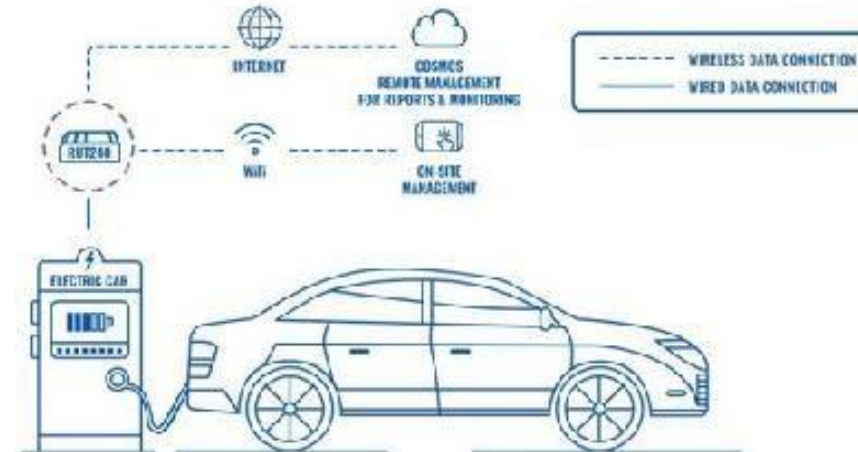
TELTONIKA

Examples

Thank you

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DISCOMON