



NUEVO

Metaurban[®]

SMART

The urban barrier that
makes cities smarter



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1. The urban barrier for smart cities

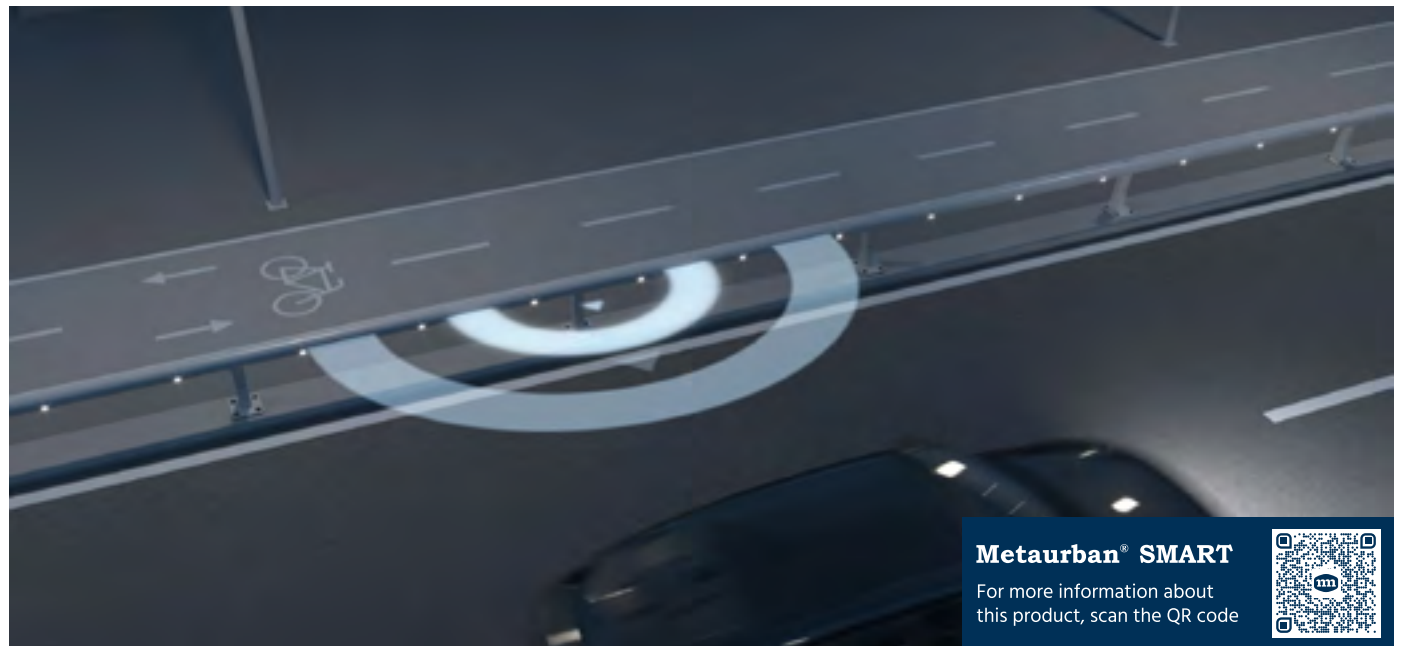
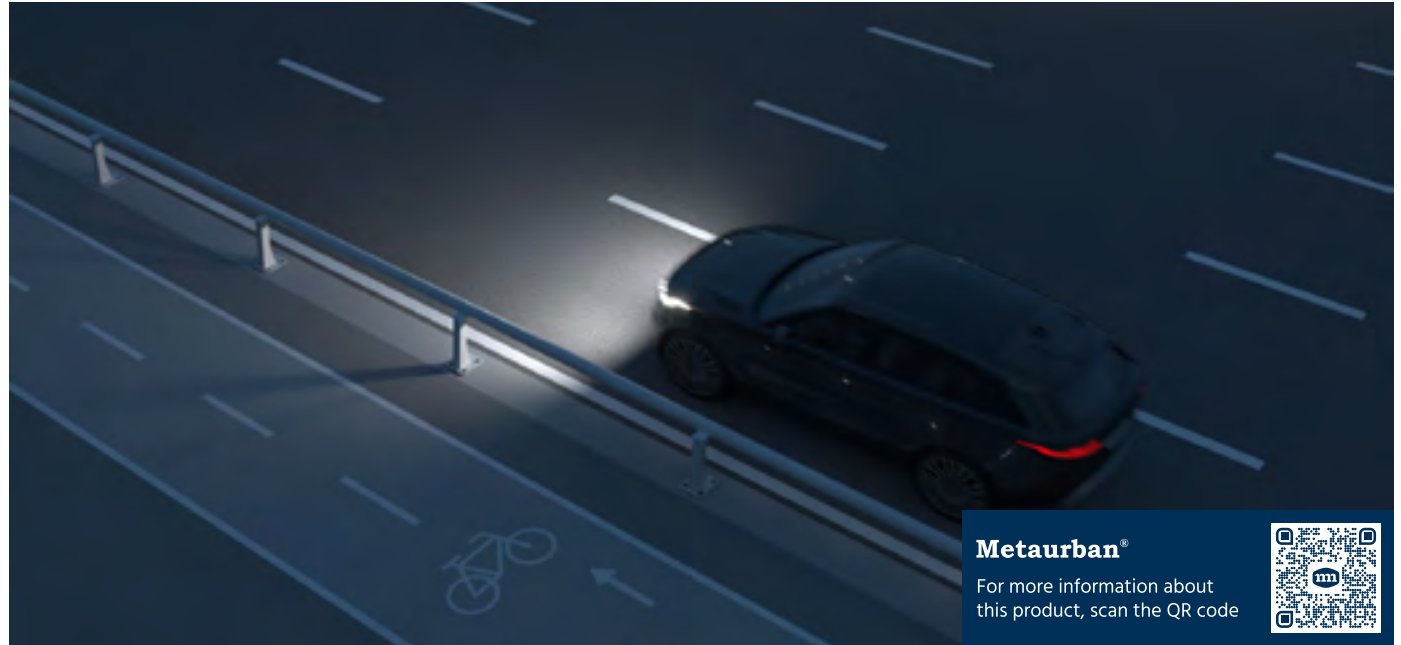
New mobility habits have led us to develop URBAN BARRIERS as vehicle containment systems for road infrastructures in cities and their metropolitan areas. These systems are specially designed so that their integration in cities creates safe and friendly environments.



Mobility and road safety solutions for urban and peri-urban environments

The Metaurban® barrier is an essential system to ensure the safety of the most vulnerable road users: pedestrians, cyclists and motorists.

It reduces both the risk of accidents and the severity of them.



The Metaurban® metallic barrier is an approved containment system characterised by its design and versatility



Before

After

SYSTEM NOT TESTED ON A FULL SCALE

- Does not comply with regulations
- Uncertainty in performance
- Uncertainty in protection

CONTAINMENT SYSTEM TESTED ON A FULL SCALE

- Adapted to European regulations
- Reduces the severity of accidents
- Ensures the protection of pedestrians

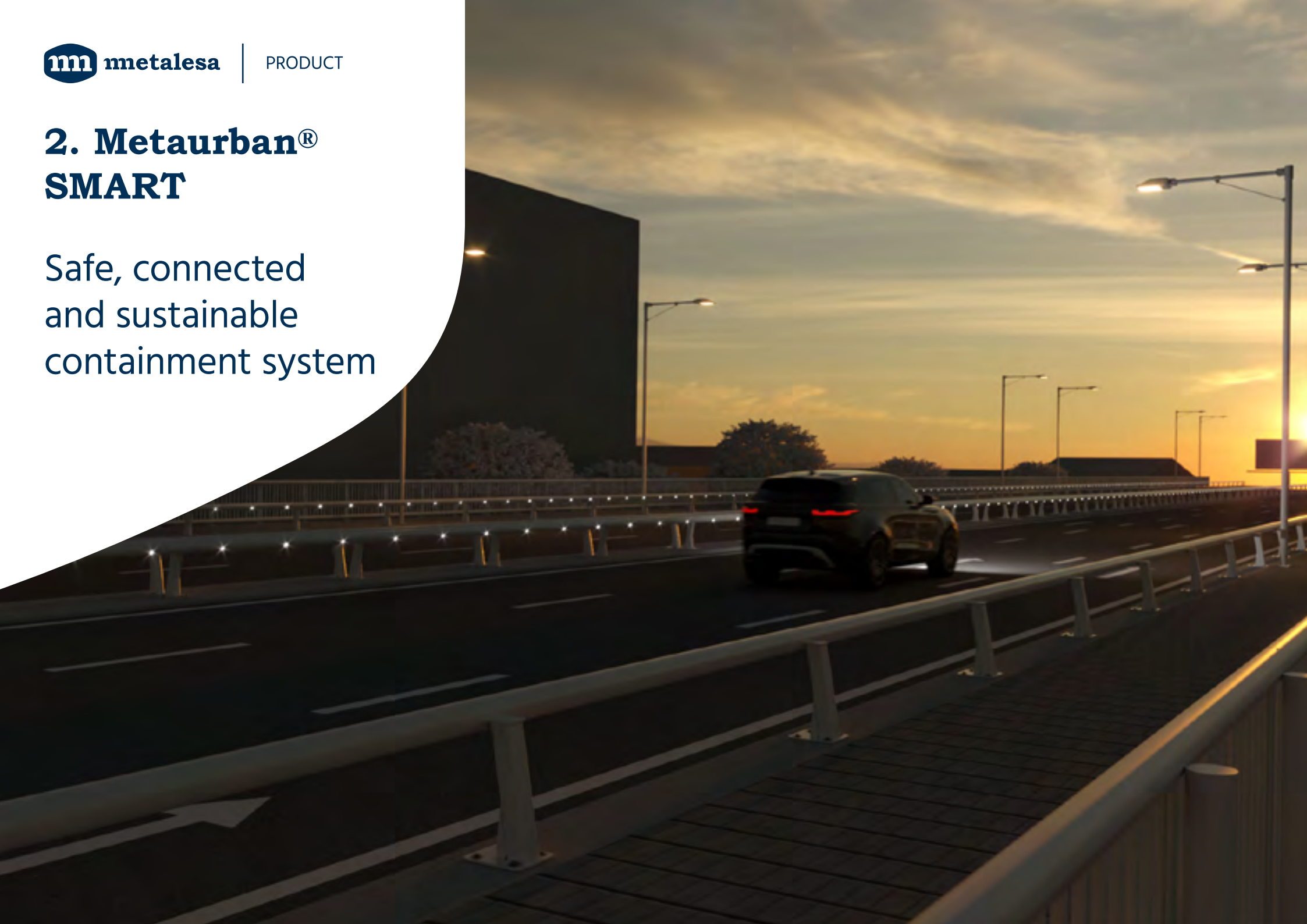


EN 1317

N1 Containment level

2. Metaurban[®] SMART

Safe, connected
and sustainable
containment system



Interconnected road safety system

Vehicle containment systems and other elements that promote sustainable mobility will change the way services are provided to citizens forever.

They will no longer be passive systems that only operate reactively when an accident has already occurred. With the available technology (IoT, Big Data and 5G networks), they will incorporate sensors that are interconnected with their environment and coordinated with the Smart City ecosystem that detect risks in advance, highlighting them and preventing accidents from happening.





Are there frequent accidents in your city?

Are there common areas of retention?

Would you like to underscore driver caution in any time slot?

Are there any spots with poor visibility where speed needs to be limited?

Do you want to mark pedestrian crossings in a particular manner?

All this and more is possible with the new Metaurban® SMART, which brings a new dimension to containment systems.

10

Features that make it unique

The Metaurban® SMART barrier incorporates sensors that detect events and collect data in real time. It is so much more than an aesthetic containment system as it provides active safety (prevents accidents from happening) both day and night.

ACTIVE ROAD SAFETY



1. IN THE EVENT OF AN ACCIDENT



2. SIGNALING AT CERTAIN TIMES



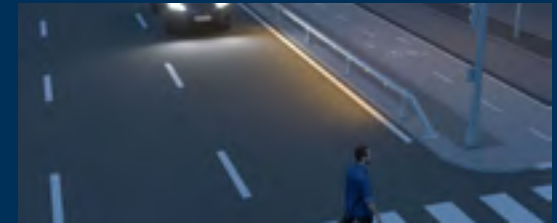
3. WITH LIMITED VISIBILITY



4. POSSIBLE FROST



5. MAXIMUM SPEED OR RETENTION



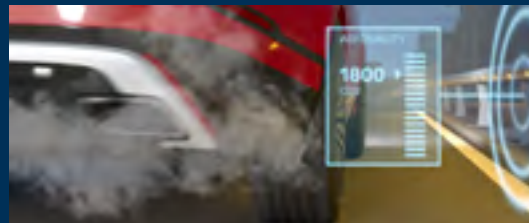
6. PEDESTRIAN CROSSINGS



7. COORDINATION WITH TRAFFIC LIGHTS



8. METERING CAPACITY



9. AIR QUALITY MEASUREMENT



10. PEDESTRIAN AREA OR CYCLE LANE LIGHTING



You decide what you want at all times

01 Scalable to the SMART option without new civil engineering works.

02 Activate or deactivate SMART scenarios based on your preferences or time of year.

03 Control of colour, flashing, light intensity, distances, direction of travel, activation times.

04 Option to differentiate behaviour, even with each light.

05 Integrate the data into your digital platform or use ours.

06 Do it yourself (training) or, if you prefer, we'll do it for you (service).

07 Light your municipality based on certain events.

08 Generate a more sustainable, friendly, attractive and safe environment.

	Metaurban®	Metaurban® SMART
CERTIFIED ROAD SAFETY		
CE Marking	•	•
DURABILITY AND AESTHETICS		
Aesthetic urban design barrier	•	•
Landscape integration	•	•
Galvanised anti-corrosive treatment	•	•
Thermo-lacquered anti-corrosive treatment (RAL chart)	•	•
SIGNALLING		
High quality LED		•
Signalling with RGB colours		•
Flashing signalling		•
Front and/or rear signalling		• (*)
SMART SCENARIOS - ACTIVE ROAD SAFETY		
10 scenarios		• (*)
Scalable to new scenarios		•
REMOTE MANAGEMENT (ANY DEVICE)		
Autonomous 24x7 operation		•
Status monitoring		•
Lighting/signalling management		•
(De)activation and configuration of scenarios		•
Alarm management		•
User-friendly interface		•
API for integrations with other platforms		•
CYBERSECURITY		
Guaranteed cybersecurity		•
ENERGY AND SUSTAINABILITY		
AC powered		•
Energy autonomy - Solar panels		OPTIONAL
Clean energy		OPTIONAL
Adaptive energy consumption		•
MAINTENANCE AND REPLACEMENT		
Easy to replace in the event of accident or fault		•

* Depends on the scenarios contracted
 * The entire barrier can be configured or just a specific distance
 * Works both day and night



Autonomy

Autonomous 24x7 operation.
 Alarms for events or incidents.



Green energy

Using a solar panel and battery power system, the system generates all the energy it needs from green sources. No additional energy costs for the municipality.

* There is an option to connect it to the grid.



Adaptive consumption

Signalling and lighting on demand.
 The signalling is triggered by events, be they activation of sensors or astronomical clock, for a limited time or that desired by the customer. It makes it possible to adapt the consumption to your target carbon footprint.

3. PLUG&META[®] Technology

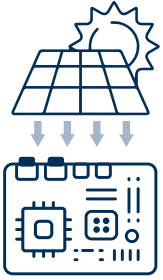
METALESA has worked for years on incorporating digital technology into its road safety and mobility products. The wide range of METALESA's patented **PLUG&META[®]** solutions allows almost any product in our catalogue to be converted into connected equipment, offering a new level of service for both local authorities and end users.

Just by coupling out IoT devices to the physical platform, the equipment becomes part of the city's digital ecosystem.

PATENTED



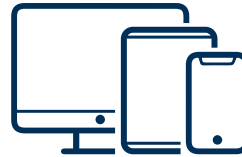
7 SELF-CONSUMPTION



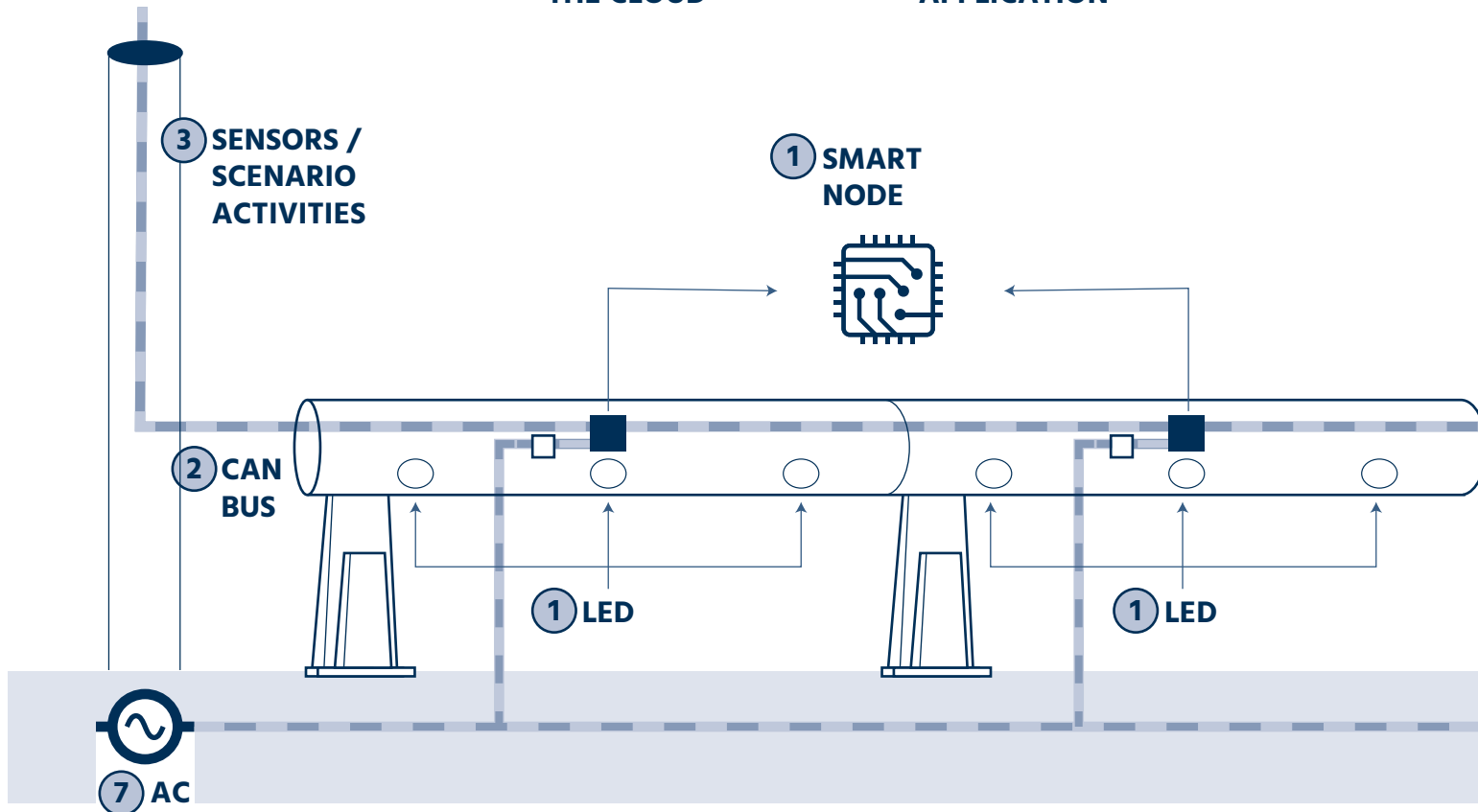
4 GATEWAY



5 DATA IN THE CLOUD



6 USER APPLICATION



Active security:

HOW DO WE DO IT

1. Node and LED lighting integrated into the barrier.
2. Secure communications between components using the CAN Bus communications protocol.
3. Sensors to detect events.
4. Communications gateway – open protocols – guaranteed cybersecurity.
5. Data storage in the cloud.
6. User application for management from any device.
7. AC powered or through solar panel installation.

PATENTED



Open, yes; embeddable, yes; safe... that too

- In real time and 24x7
- Monitoring of every component alarms for events and faults
- Access to statistics
- Personalisation to your requirements
- Remotely
- From any device

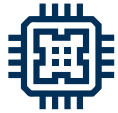
Management from wherever you want

- We give you access to our management platform.
- You can integrate it into the system you already have via an API.

While ensuring the security of your data

- Secure CAN bus approved wiring connections, without wireless connections between components.
- Authentication by password or certificate.
- Possibility of security profiles by user type.

Integrated hardware components



NODE WITH ELECTRONICS AND FIRMWARE WHERE THE INTELLIGENCE IS HOUSED



HIGH QUALITY LED (RGD) LIGHTING



GATEWAY TO CHANNEL REMOTE COMMUNICATIONS



ENSORS TO DETECT EVENTS



SPECIAL WIRING FOR CAN BUS COMMUNICATIONS – DISTRIBUTED CONTROL



ROBUST ENCAPSULATION TO PROTECT THE ELECTRONICS AND DISAPATE ITS HEAT



AUTONOMOUS 24/7 POWER SYSTEM WITH GREEN ENERGY

4. Sustainable urban development

A city model conceived to guarantee the quality of life of its people requires travel around urban and metropolitan areas to be sustainable.

The Metaurban® SMART barrier helps communities and urban environments enjoy safer and more efficient traffic control for both pedestrians and drivers.



SUSTAINABLE DEVELOPMENT GOALS



5. Technical service



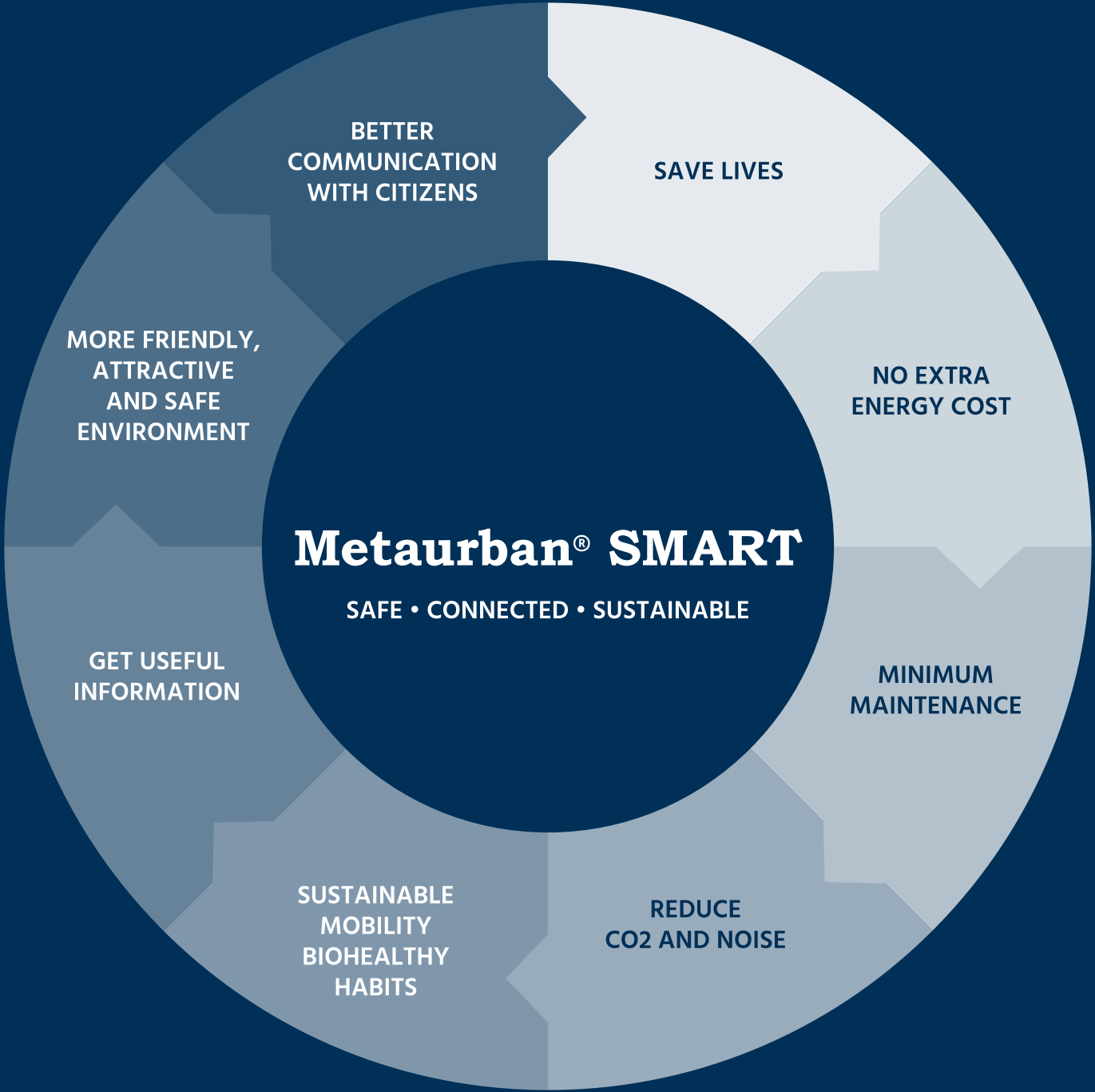
If you are independent in your municipality and have your own smart city platform:

- Connect to our API to control the product remotely.
- Supply of spare parts for any component.
- On-demand interventions for faults.
- Training for your team.



Delegate this management to us if you prefer:

- Periodic information on the status of the system.
- Management of your customisation requests.
- Monitoring of your alarms.
- Proactive actions on faults.



BETTER
COMMUNICATION
WITH CITIZENS

SAVE LIVES

NO EXTRA
ENERGY COST

MORE FRIENDLY,
ATTRACTIVE
AND SAFE
ENVIRONMENT

Metaurban® SMART

SAFE • CONNECTED • SUSTAINABLE

MINIMUM
MAINTENANCE

GET USEFUL
INFORMATION

REDUCE
CO2 AND NOISE

SUSTAINABLE
MOBILITY
BIOHEALTHY
HABITS



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