



Citelum, the lighting and smart services subsidiary of the EDF group, meets the energy efficiency, security, mobility and attractiveness needs of its customers, industries and cities, and supports them in their sustainable, low-carbon and connected projects.

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## MAJOR CONTRACTS

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### EUROPE

#### France

After one year, the control station which connects and remotely monitors the urban equipment of the 23 municipalities of the metropolitan area of Dijon, is 100% functional. "OnDijon" of which Citelum provides the software base via its Smart City MUSE<sup>®</sup> platform, has also proven to be an asset for managing the Covid-19 crisis, facilitating information sharing and rapid decision-making on the territories for the benefit of citizens.



#### Belgium

As part of the "Plan Lumières 4.0" awarded to the LuWa consortium made up of the companies Citelum, EDF Luminus, CFE and DIF, LED renovation works have started on the Walloon structuring road network. Several cases of intelligent lighting use (see "Innovation" section) have also been implemented through the installation of various flow sensors, detection and their interfacing to the centralized remote management system based on MUSE<sup>®</sup>. Ultimately, the contract will enable to achieve 76% of energy savings, the equivalent of 166,000 tons of CO<sub>2</sub> emissions avoided.



#### Denmark

Building on the winning of the two additional Greve and Egedal contracts, Citelum now manages the lighting of 7 municipalities across the country.

The Group is also expanding its activities in Copenhagen by highlighting the most visited places and buildings with nearly 90% energy savings, by installing exterior lighting for the new Cityringen metro line and by diversifying into the management of traffic light system infrastructures.



#### Spain

Citelum takes position in the Tarragona region in Catalonia as well as in Asturias with the Oviedo contract where Citelum has optimized lighting for an objective close to 80% energy savings and a reduction of 84 tons of CO<sub>2</sub> emissions per year.

In Palma de Mallorca, Citelum has rolled out new connected services: noise sensors coupled with light intensity and electric vehicle charging points integrated into the candelabra.



## CONTRACTS (FOLLOWING)



### Italy

Citelum now manages the lighting of more than 200 cities. Its strong expertise was key to provide the city of L'Aquila with the 1<sup>st</sup> European system that automatically regulates the intensity of lighting according to the circadian sleep-wake cycle. The solution integrated into the luminaires, contributes to lowering the city's energy consumption and reducing its CO<sub>2</sub> emissions while improving the quality of life of the inhabitants.



### AMERICAS

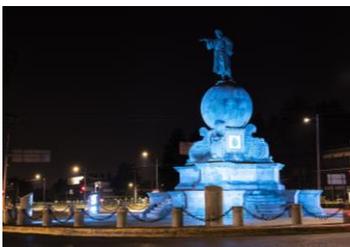
#### Brazil

Citelum which has renewed its contracts in Sao Francisco do Conde (State of Bahia), Caxias (State of Maranhão) and Goiânia (State of Goiás), is now accompanying the city of Valinhos (State of São Paulo) and has won a new contract in Imperatriz thereby strengthening its presence in the State of Maranhão.



#### Chile

Citelum won the lighting renovation and maintenance contracts for 5 new municipalities and has developed in the field of artistic lighting by illuminating the Sculpture Park of Providencia and the Pontifical Catholic University of Santiago de Chile.



#### Mexico

Citelum won the contract of Toluca de Lerdo, capital of the State of Mexico, and modernized the lighting of three of its main road axes, ultimately improving the quality of light, reducing the risk of accidents and increasing safety.

#### United States

Citelum conducted the outdoor and indoor lighting inventory for 14 marinas along the East Coast, from New Jersey to Florida, on behalf of Safe Harbor Marinas.



### ASIA

#### India

In India, Citelum manages 180,000 light points in Ahmedabad, including 6,000 intelligent lighting points on a corridor of the "high-level bus" network. Citelum is also renovating 74,000 lights in the city of Noida for Tata Projects Ltd.

#### China

Citelum which regularly increases the number of lighting points managed for the city of Kunming (nearly 110,000 points), has offered and installed 288 luminaires in the small mountain village of Qixingtian which was not yet equipped. The Chinese teams also took care of the lighting of a primary school.



## PRIVATE MARKETS

Citelum is pursuing the development its industrial and tertiary activities with the lighting optimization of the Renault site of Novo Mesto in Slovenia.

In partnership with E-On, Citelum also renovated the lighting of 2 of the 5 Eramet sites in France, thus combining technical know-how, energy performance commitments and a robust financing model.

In West of France, Citelum is optimizing the locations and renovating LED lighting for the historic Hennessy cognac bottling site of the LVMH group, La Vignerie.

Citelum also won the strong and low currents lots of a Pitch Promotion 50,000m<sup>2</sup> logistics warehouse which will be used for a European supermarket brand. The teams also modernized the indoor and outdoor lighting as well as the entire electrical installation, including the supply of Bluetooth wheel chocks in car parks.

## INNOVATION

### PROMOTING SOFT MOBILITIES



Citelum has successfully tested, alongside the city of Copenhagen and Itron partner, a new solution for dynamic lighting and darkening around pedestrian crossings that are not demarcated by any traffic or pedestrian lights.

To achieve this result, Citelum and its partners installed radars on the pedestrian crossings already connected to the Itron intelligent communication network. When the radar detects a pedestrian, a signal is sent to the luminaire which increases its light intensity.

## SUSTAINABLE DEVELOPMENT

### AIR QUALITY AT STAKE

In Asnières-sur-Seine (Paris' suburbs), Citelum is carrying out an experiment to characterize the sources of atmospheric pollution in the city, and in the long term, to adapt mobilities, redirect urban traffic if necessary, consider intelligent parking solutions. Objectives: to limit the environmental impact and to provide a better quality of life for citizens.

Several innovative devices have been thus tested and installed on the lighting candelabras:

- cameras connected to the 3G / 4G network analyzing traffic thanks to artificial intelligence algorithms and recording trucks, cars, two-wheels vehicles and pedestrians;
- air quality sensors powered by solar panels reading pollutant levels;
- passive tubes (installed as part of the partnership with AirParif) reacting to the surrounding pollution and offering a comparison of the levels detected via the sensors.

### SECURING THE ROAD WITH LIGHT

In Wallonia, the "Plan Lumières 4.0" forecasts energy savings, user security, biodiversity preservation, deployment of new connected services including the adaptation of the road network to future autonomous vehicles.

The high-performance LED luminaires selected will provide more precise color rendering for clearly improved visibility, comfort and safety for users.

The levels of lighting are adapted to the different types of road axes and modulated according to the situations: exchangers which light up at the arrival of a vehicle, light warning a driver in the wrong way, light intensity increased in the event of a bad weather or the arrival of a pedestrian near the road.



## QUALITY – HEALTH – SAFETY – ENVIRONMENT

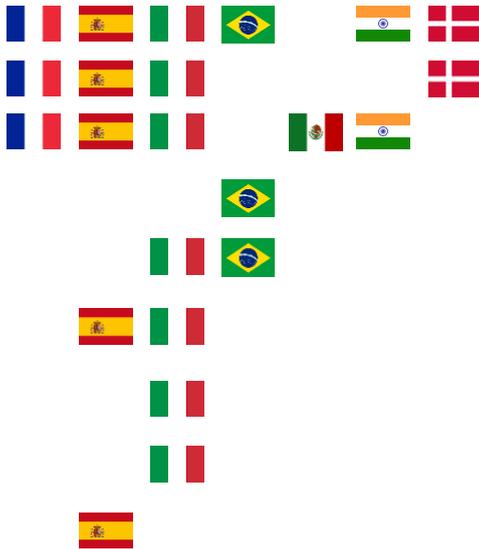
In 2019, Citelum and all of its management continued to anchor the Health and Safety culture among the teams around the world.

**2019 Frequency rate:** 2.87, a reduction of 46% compared to 2018.

Otherwise, Citelum has defined its Sustainable Development policy, in line with EDF group policy and adapted to its businesses.

CERTIFICATIONS

- Quality **ISO 9001**
- Environment **ISO 14001**
- Health-Safety **OHSAS 18001 / 45001**
- Compliance management systems  
- Guidelines **ISO 19600**
- Anti-bribery management systems **ISO 37001**
- Energy management **ISO 50001**
- Energy management - Companies providing energy services (ESCO) **UNI CEI 11352**
- Social responsibility **SA 8000**
- EU Eco Management and Audit Scheme **EMAS**



## KEY FIGURES

### WORKFORCE

**2 489** employees (end 2019)

France	600
Brazil	458
Mexico	343
Spain	334
Chile	241
Italy	215
China	85
India	77
United States	56
Denmark	52
Belgium	25
Morocco	3

### FINANCIAL RESULTS

**TURNOVER**  
310 M€

**INTERNATIONAL**  
73% (of turnover)





Naples, Italy



Maracanaú, Brazil



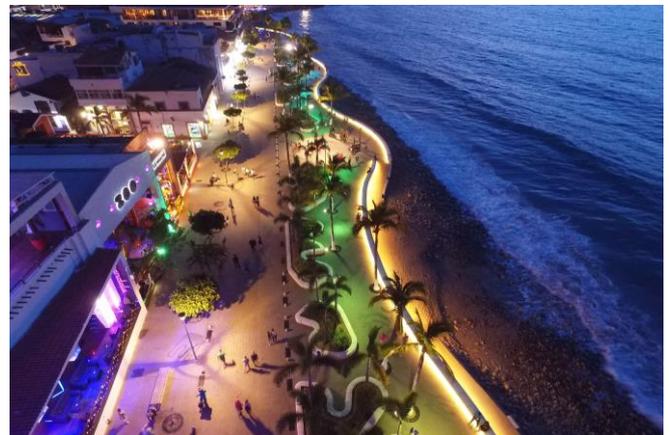
Bordeaux, France



Alcala de Henares, Spain



Copenhagen, Denmark



Puerto Vallarta, Mexico

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