WeLight
SMART LIGHTING

Wellness TechGroup

Touch the future

❯ A Hub of services

Street lighting can be an ideal platform to support additional services due to its presence in remote areas, connectivity to the electricity grid, and proximity to people.

Thanks to IoT technology, lighting can be equipped with intelligence and connectivity, converting each luminaire into a data server (data-enabled lighting). This converts the system into a service that goes beyond just lighting.

Luminaries become nodes in the IoT ecosystem

❯ Benefits for

Administrators

Cities administrators can achive a double challenge: having a brilliant and safe city at the same time that save money and achive sustainability goals.

Citizens

Citizens enjoy a more environmentally responsible and comfortable lighting that can also contribute to their safety thanks to adaptive lighting.

Lighting operators

Maintenance works become easy as you have real time information related to all your lighting assets. You can plan workflows and act against consumption deviations and incidents.
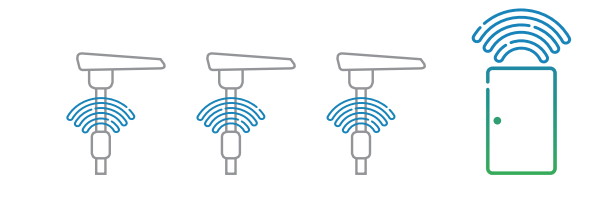
Providers & service companies

You can help your customer giving the best service level, minimizing incidences, contributing to energy optimization and giving detailed information.
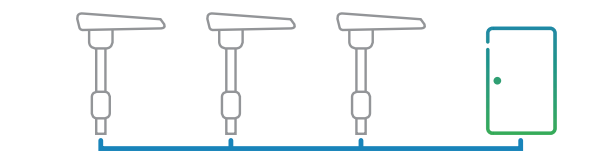
Four lighting control modes
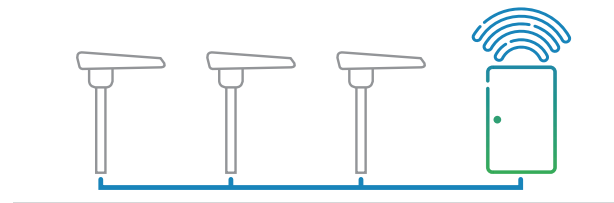
Group ON/OFF control - Central cabinet control

Individual Dimming Control - Point to point dimming control

Individual PLC control - Point to point PLC control | PLC communication

Individual Wireless control - Point to point Wireless control

❯ An integrated, open & flexible system

WeLight Smart Lighting system has been developed to improve the quality and efficiency of public lighting for enhanced service and a better user experience. Integrating new technologies in the public lighting infrastructure has the potential to generate savings, optimize processes, and facilitate improved decision making. It establishes a base for the implementation of a smart digital platform to manage other city services, a step towards becoming a Smart City.

WeLight monitors and controls the public lighting infrastructure, detecting irregularities in consumption or operational malfunctions, as well as compiling consumption and savings reports. The system helps managers to prepare inventories and carry out both preventative and corrective maintenance. This solution not only guarantees energy efficiency but is also key for public and traffic safety.

Remotely managed lighting, along with the integration of devices like artificial vision cameras and influx or noise sensors, form a smart security system for public safety and security agencies. Likewise, remote management of luminaires with color variations can be used for adaptive decorative lighting and tourism during public events, seasons, etc.

Smart Spaces

- Safe City
- Clean & Efficient City
- Smart Destinations
- Smart Campus

Use Cases

· Energy consumption management: profiles of point-to-point control

· Public safety application: anti-panic lighting and guided evacuation

· Applications for decorative lighting

· Lighting for large scale events

Wellness TechGroup offers an end-to-end solution for optimal service, made up of IoT devices such as Unigate or Actis, as well as the complete WeLight Manager, the software platform.

With these components, the solution allows for two distribution models: remote management at the top of the electrical panel (control panel and circuits) and point-to-point remote management, both of which are compatible with conventional lamps (halide, sodium vapor, mercury vapor, etc.) and LED. Or, through wireless LPWA communications (LoRaWAN, Sigfox, cellular) or PLC (Power Line Communications).

In addition, system distribution is made easy and agile using a mobile application.

WeLight uses multi-operator SIMs, ensuring high quality network connection and coverage.

Security measures are implemented in both hardware and software (VPNs, SSL certificates, etc.) so that all information can be securely transferred online.

WeLight is a flexible modular solution with multiple configuration and distribution options using a software as a service (SaaS) or licensing model.

In short, WeLight Smart Lighting offers reliable alerts for critical real-time decision making, allowing cities to react quickly to irregularities.
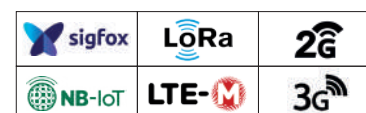
Welight Manager

Unigate
· Remote management of central cabinet systems
· Enabled with most extended interfaces and protocols
· Lighting or HVAC switch on/off
· Dimming point to point control through PLC or RF
· Cable theft protection

Actis One/Plus
· Remote control of light points
· Luminaire inside mounted
· 1-10V&DALI driver compatible
· Revenue grade energy metering
· External sensors data input
· Adaptative lighting
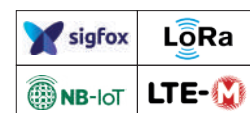
Actis Plus Nema 7
· Remote control of light points
· Plug&Play installation: Nema 7 socket
· DALI-2 & 1-10v driver compatible
· Revenue grade energy metering
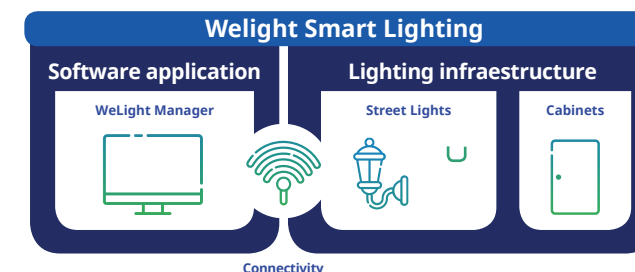· External sensors data input
· Adaptative lighting

✓ Improve efficiency in the management of public lighting systems.
✓ Maximize the value of investments.
✓ Optimize system operations.
✓ Improve service to citizens.
✓ Have real-time information.

❯ A fully integrated end-to-end solution

Manage the lighting of your city and control its energy consumption and assets.

Welight Smart Lighting
Software application | Lighting infraestructure
WeLight Manager | Street Lights | Cabinets
Connectivity

❯ Modules

Lighting and Energy Remote Management in Panel / Point to Point

Inventory of City / Building Assets

Maintenance Incident Workflow

Management Modules

Reports: Energy, Maintenance, Billing

❯ WeLight in 5 steps

01 Know all the data of your service instantly
Equipment monitoring and control. The frequency of information collection is every five seconds.

02 Decision making in real time
Monitoring of consumption in real time, programming of the operation of public lighting and warning of incidents.

03 Manage each luminaire remotely
Asset management with geographical positioning and key parameters.

04 Easy and flexible system
Deploy independently through an app or phone call. SaaS mode.

05 Information analysis
Reports of consumption, savings, service level, savings and billing deviations.

Gandía and Smart Lighting: a 20% annual savings

Gandía's updated public lighting system, thanks to remote-controlled LED technology, is now more economically efficient and environmentally friendly.

City, Lighting

Gandía has a population of over 70,000 and is one the region's main tourist destinations thanks to its privileged location between the sea and mountains. The main objective of this mid-sized city was to improve the quality of life of its citizens, and to increase the efficiency of its public lighting. Integrating new technology in the city's lighting infrastructure not only lead to savings, but provided valuable information for decision-making and process optimization, laying the foundations for the implementation of a digital platform that could be used to manage other IoT services throughout the city. The city government launched a project to renovate and optimize its municipal outdoor lighting network with the help of Alisea ESCO, which was chosen in a public tender. The 15-year contract will lead to significant savings in electricity costs thanks to LED technology from LEDUS and the implementation of WeLight, the Smart Lighting solution of Wellness TechGroup solution.

Villaviciosa de Odón lanches one of the largest renovation projects for public lighting based on LoRa communications.

City, Lighting

The City Council of Villaviciosa de Odón proposed to carry out the renovation of its old luminaires to LED technology. This initiative that will greatly reduce the installed power, maintaining the quality of lighting thereby improving the efficiency of the facilities and, more importantly, achieving significant energy savings. This in addition to getting the savings achieved would allow the city to comply with current regulations. The action would affect 4,632 points of light and would mean an approximate saving of 72 percent compared to current consumption. Wellness TechGroup provided ESCO Imesapi with the LoRa communications-based remote control technology necessary for the project.

Large lighting renovation project in Villaviciosa de Odón

Innovative vision of citizen safety throught public lighting

An innovative public safety project that incorporates an intelligent adjustable lighting system with control mechanisms for the influx of people, both integrated with smart platforms to quickly inform and assist in decision-making in real time.

City, Lighting, Physical Security, Platform, Security

Led by the Seville City Council, this unprecedented citizen safety project used the latest innovative technology to ensure the safety of visitors and residents. Wellness TechGroup played an important role in the project, implementing their Smart City Lighting solution, WeLIght. This element made it possible to vary light intensity and color temperature on the 173 LED lightpoints installed in high-risk areas. This system was connected to an intelligent horizontal platform and integrated with cognitive video platforms, for 360º crowd control, incident detection and ensured urban safety.

› Enabling Smart Cities development

Our software platforms bring valuable and actionable city insights to our customers to improve operations and reduce costs. They comply with all Smart City and IoT standards as well as security protocols and APIs, making them open, scalable, secure and interoperable tools capable of integrating with other city systems and technologies. The platforms utilize a layered architecture and databases that are specifically designed for the IoT paradigm.

› WeLight brings

Improved Management

· Detects malfunctions in public lighting in real time, improving response time and service.

· Reduces operating costs.

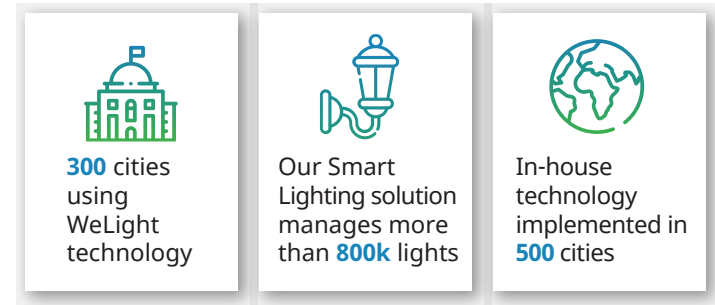· Controls and reduces energy consumption.

· Lighting comfort.

Integration and Scalability

· Compatible with multiple technologies and manufacturers, such as LEDs and conventional lamps.

· Customizable modular platform.

· Compatible with existing information systems.

· Compatible with point-to-point systems and cable anti-theft systems.

· Adapts existing lighting infrastructure to the Smart City network.

· Uses standard technologies like LoRaWAN.

Versatility

· Allows for changes in color profiles, intensity and temperature.

· Adaptive lighting.

· Ensures public safety by integrating with other smart elements and indicating evacuation routes.

· Enhances both the resident and tourist experience.

300 cities using WeLight technology

Our Smart Lighting solution manages more than **800k** lights

In-house technology implemented in **500** cities

300   **800k**   **500**

Our vision for Smart Cities

Smart City projects require a 360º approach that focuses on all city services and infrastructures, going beyond individual verticals and systems for maximized interaction and benefits across city areas.

› Already trust WeLight

Wellness TechGroup designs and
delivers smart technology solutions
that make cities, territories, and
companies safer and more efficient.

Spain

Seville
Calle Santo Tomás 13
41004 Sevilla
Tel. +34 954 151 706
info@wellnesstg.com
www.wellnesstg.com

Málaga
Tel. +34 690 182 390
malaga@wellnesstg.com

Madrid
Tel. +34 678 778 168
madrid@wellnesstg.com

Australia

Adelaide
+61 457 156 025
australia@wellnesstg.com

United States

Orlando
+1 /435) 306-2687
usa@wellnesstg.com

Mexico

Mexico City
+52 (1) 453 08081
mexico@wellnesstg.com

Germany

Munich
+49 172 821 7233
deutschland@wtelecom.de

Sweden

Kalmar
+46 702 312 454
sweden@wellnesstg.com