Telefónica Tech reinforces remote luminaire management with AI to save up to 30% energy

Telefónica Tech, Telefónica's digital business unit, is evolving its smart outdoor lighting solution with the incorporation of a new layer of artificial intelligence (AI) that will allow city councils to adapt lighting profiles to the real needs of cities and achieve energy savings of up to 30%.

The technology company has integrated the capabilities of its Smart Steps platform into the smart lighting solution, which allows remote management of the lights in real time, taking into account the information from each streetlight collected with sensors with NB-IoT connectivity. Thanks to artificial intelligence and the analysis of mobility insights in the area, points of interest and weather conditions, the power at which each streetlight is adjusted can now be adapted to the real demand of each location.

Smart Steps is the mobility analysis platform developed by Telefónica Tech that uses artificial intelligence and advanced analysis to process data relating to crowd behaviour in an anonymised, categorised, extrapolated and aggregated way, using data from millions of mobile phone lines. With this platform, Telefónica Tech obtains patterns that are key for public administrations and private companies to make more informed decisions and plan urban infrastructures and services more efficiently for special events that can alter behaviour in cities.

Telefónica Tech's smart outdoor lighting solution helps reduce light pollution by providing valuable information to more efficiently control the switching on and off of each luminaire, the light profiles, and their energy and power. Furthermore, it enables the early identification of faults so that preventive or predictive maintenance can be carried out, thus optimising travel and reducing the cost of operation and maintenance by up to 20%.

The crowd mobility analysis of the Smart Steps platform also allows us to understand how to adapt the lighting levels of each area when there is a special event or a point of interest, taking as a reference the statistical data of movements that occurred during the celebration of the event the previous year and taking into account the meteorological data, in order to develop a public lighting plan that satisfies the needs of the citizens.

Alfredo Serret, global IoT director at Telefónica Tech, explains:

> We continue to innovate to offer customers the most comprehensive solutions on the market with which to improve people's lives and achieve a positive impact on the environment. Our smart outdoor lighting solution, now enhanced with the mobility insights of our Smart Steps platform, allows us to recommend the most appropriate lighting profile for the real circumstances and to continue working on the development of more efficient and sustainable smart cities

The comprehensive smart outdoor lighting solution has been previously tested at The ThinX, Telefónica Tech's IoT laboratory, where customers, partners and institutions discover the latest technologies and participate in the development and co-creation of any IoT project before its mass deployment.

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