

PHILIPS Lighting

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Smart LED Lighting and City Data could help cities reduce CO₂ emissions by over 60% and achieve UN Sustainable Development Goals

- Philips Lighting tells a UN Special Event that smart LED street lighting and standardized city data could significantly help achieve the UN's Sustainable Development Goals
- New Report, jointly published with the World Council on City Data (WCCD), reveals the 63% greenhouse gas emission reductions made by Los Angeles due to connected LED lighting conversion could be replicated in cities across the world with other potential benefits including crime reductions, improved traffic safety and economic growth
- Call for global switch to 100% LED street lighting by 2025 which could reduce lighting's share of global energy consumption from 15% to 8%

Eindhoven, the Netherlands – Cities could make energy savings and CO₂ emission reductions of almost two-thirds through the introduction of smart LED street lighting, representatives of Philips Lighting, a global leader in lighting, will tell the United Nations today.

Appearing during the "Local 2030: Hub for Sustainability Solutions" Special Event at the UN Headquarters in New York today, Philips Lighting will highlight the need for high-caliber data to understand the value of LED systems and how a new partnership between the Philips Lighting and the World Council on City Data (WCCD) is addressing this need in collaboration with cities around the world.

A new report¹ jointly produced by Philips Lighting and the WCCD reveals that the city of Los Angeles made energy savings of 63% in 2016 by implementing such a system, generating cost savings of USD 9m and reducing its annual greenhouse gas emissions associated with public lighting by 47,000 metric ton. This is equivalent to the greenhouse gas emissions from almost 10,000 passenger vehicles driven for one year².

Philips Lighting says that if cities around the world adopted such systems, they could make vast reductions in their annual emissions and expenditure on electricity.

The report says that better quality lighting could also bring benefits such as reduced crime rates and improved citizen perceptions of safety, with Los Angeles observing a 10.5% drop in crime rates for offences such as vehicle theft, burglary and vandalism in the first two years of its LED conversion program.

Other benefits of connected LED street lighting cited by the report include improvements in traffic safety for all road users, city attractiveness and economic strength. By producing these benefits over and above emission reductions, smart LED lighting will also make a major contribution to meeting the UN Sustainable Development Goals, a globally-agreed set of targets for moving to a sustainable future by 2030.

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“City authorities face complex and challenging choices concerning infrastructure, balancing the need to maintain existing services while investing in improvements, managing population growth and enhancing sustainability – all within tight budget constraints,” said Harry Verhaar, Head of Global Public and Government Affairs, Philips Lighting.

“The operation and maintenance of street lighting is a major cost that contributes to these challenges for local authorities. But new technologies are transforming the way cities can deliver, operate and maintain public lighting in a way that can generate a wide range of benefits to the local authorities and the communities they serve. The challenge is building the investment case to enable them to implement this technology in the first place.

“We are calling for all cities to adopt 100% LED street lights by 2025. COP21 sent a clear signal of political support to tackle the effects of climate change, and a switch to energy-efficient LED street lights in cities would make a vast difference. Of approximately 300 million streetlights across the world, only about one in ten are energy-efficient LEDs, and just 2% are connected. Combining energy-efficient lighting with connected system management can deliver energy savings of up to 80% – which would make a significant dent in our climate change targets,” he added.

Lighting currently accounts for 15% of global electricity consumption, but with a universal switch to LEDs, lighting’s share of power consumption would fall to just 8%.

Stumbling blocks to the adoption of public sector smart technology projects include financing projects upfront, particularly with squeezed local authority budgets.

The report presents a measurement framework that can monitor and evaluate city-level impacts of smart and connected lighting investments, arguing that the adoption of standardized city data such as used in Los Angeles will help to inform infrastructure investment and decision-making and build the investment case for smart technology projects.

The WCCD has been mapping its ISO 37120 standard to the 17 themes of the United Nations Sustainable Development Goals, in order to support cities in taking a leadership position to address these goals.

“The ISO 37120 standard that the WCCD is implementing with cities globally defines a comprehensive set of 100 standardized indicators that enables any city, of any size, to assess their performance and measure progress over time in a way that can be accurately benchmarked and compared with other cities,” explained Dr Patricia McCarney, President & CEO, WCCD.

“This data can clearly quantify how investments can improve infrastructure service levels across a city and deliver benefits to its inhabitants. The benefits of smart infrastructure solutions cover financial, economic, social and environmental spheres so this data-driven approach is particularly useful for evaluating these.

“Mayors and city leaders throughout the world are taking on key global issues from climate change to poverty, migration, trade and investment, embodied in the SDGs. High calibre city data that is globally standardised is critical for city leaders to monitor progress on these global

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goals, benchmark performance and learn lessons from all international regions," she concluded.

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Notes to editors

¹ "The Citywide Benefits of Smart & Connected Public Lighting" report by Philips Lighting and WCCD, assessed through ISO 37120 data, published 2017.

² 47,000 metric tons of CO₂ emissions is equivalent to 9,928 passenger vehicles driven for one year, according to the [Greenhouse Gas Equivalencies Calculator](#)

City case studies

The City of Los Angeles integrated Philips Lighting's CityTouch connected street lighting management system, that integrates connected devices with web-based management applications, including a remote lighting management tool for cities to measure, manage and monitor connected street lights remotely through a real-time, map-based view; and a lighting asset management application which helps workflow management and maintenance planning. The city has now converted 140,000 street lights to LED and has 110,000 nodes connected and managed through the CityTouch system.

Buenos Aires is another leader in smart lighting, having entered into a public-private partnership with Philips Lighting and having upgraded more than 75% of its public lighting to energy-efficient LED lights connected to the CityTouch connected street lighting management system. As a result of these changes, Buenos Aires has been able to improve operational efficiency and realize energy savings of over 50%.

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About Philips Lighting

Philips Lighting (Euronext Amsterdam ticker: LIGHT), a global leader in lighting products, systems and services, delivers innovations that unlock business value, providing rich user experiences that help improve lives. Serving professional and consumer markets, we lead the

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industry in leveraging the Internet of Things to transform homes, buildings and urban spaces. With 2016 sales of EUR 7.1 billion, we have approximately 34,000 employees in over 70 countries. News from Philips Lighting is located at the [Newsroom](#), [Twitter](#) and [LinkedIn](#). Information for investors can be found on the [Investor Relations](#) page.