



Street lighting to enhance the future of smart cities



Public Procurement Principle: **Integration, Efficiency**



Procurement Stage: **Pre-tendering, Tendering**



Audience: **Procuring entity, Civil society, Policy maker, Private sector**

Description

Many cities have been investing in street lighting projects to advance their smart city strategies and provide better services for citizens. Through smart street lighting systems, cities aim to improve security, achieve energy efficiency, reduce maintenance costs, ensure better data management, and generate revenue. In practice, local authorities have fixed data points that are already pre-powered to act as a base for additional sensors. A smarter street lighting system offers the opportunity to control the output of every luminaire.

From street lighting projects to the entire integration with Internet of Things (IoT) networks, cities are realising the potential in street lighting systems as a vehicle to advance their smart city agenda as well as crime detection and traffic crash prevention. For example, in 2021, the city of Atlanta, United States (US), announced an expansion of 10 000 streetlights in targeted areas as part of the One Atlanta—Light Up the Night crime and traffic crash prevention initiative. The city estimates that crime could decrease by as much as 20% in neighbourhoods through streetlight intervention. The possibility of connecting other devices (e.g. cameras, traffic information boards, sensors, etc.) to this control can also contribute to increasing the safety of residents and visitors to the city (e.g. pedestrians, drivers, cyclists, visitors, etc.).

Cities can use the data available to manage better public services for citizens. Data is available in motion sensors and cameras, for example, and it could be used to map traffic flows and identify the best schedule for maintenance. In addition, smart sensors increase revenue opportunities with add-ons available for different advertising opportunities and Wi-Fi hotspots. However, when adding smart sensors to the street lighting system that may transmit data, cities need to consider data privacy by not collecting data on citizens without their consent. In addition, cities can use the street lighting system to communicate with citizens. For instance, during the COVID-19 pandemic, street lighting systems provided alerts and updates on the COVID-19 situation

OECD (2021), Unlocking the Strategic Use of Public Procurement in Bratislava, Slovak Republic, OECD Publishing, Paris, <https://doi.org/10.1787/d616e4d9-en>.

