

# Smart and Connected Streetlights Pilot

Urbanova is defining how to develop and design a living laboratory as well as harnessing data to gain insights, empower people and solve urban challenges in new ways. The Smart and Connected Streetlights Pilot will help increase energy efficiency and public safety while also assessing the role of air quality in healthy cities.

## SMART STREETLIGHT CONTROL

The pilot enables the intelligent management and control of the streetlights using Itron's OpenWay Riva™ Internet of Things (IoT) solution. The smart, connected sensor network provides the foundation for the streetlight pilot and future applications. The new generation streetlights not only save energy compared to predecessors, but they are also remotely controllable so that lighting conditions can be adjusted and optimized to improve public safety or urban ambiance. Data from the streetlights will be used to provide insights into energy savings and efficiency.

## HUMAN-SCALE AIR QUALITY

The pilot also features a human-scale urban air quality R&D component, measuring the quality of the air and other environmental factors to assess the role of air quality in healthy cities.

The data from the streetlights will be used with advanced weather and air quality models to improve understanding of micro-climates in urban areas. It will also provide unique and valuable information about how forest fires – which are common in the region – affect air quality and pollution in urban environments.

## FACTS-AT-A-GLANCE

**Streetlight Sensors:** 10 (additional 29 in fall 2017)

**Urbanova Partners:** Avista, Itron, Washington State University, City of Spokane

**Technology Platform:** OpenWay Riva™

**Data We're Gathering:**

- Ambient temperature
- Ambient light
- Peak noise level
- Motion detection
- Pole orientation/acceleration
- Particulate matter concentration (PM1, PM2.5, PM10)
- CO2 concentration
- Barometric pressure
- Temperature
- Humidity

