Supporting a data-let approach with smart sensing technologies

Why smart movement counters?

Thousands of people travel through our urban spaces every day. The paths they take affect the whole city environment, and with the progression of COVID-19, it is more important than ever to understand how our cities move.

Smart sensing technologies have an important role to play in providing a clear picture of the city pulse:

- Pedestrian counters monitor foot traffic, direction of travel, retail frequency and peak usage times, growth and changes in urban areas

- Bicycle counters provide data on the use of bike paths, numbers, direction and frequency of bike traffic
- Vehicle counters detect and measure traffic volumes and patterns, speed, congestion and transport incidents

This data helps to shape the future of our cities by enabling insights into social, economic, environmental and mobility trends. It supports a coordinated approach and ensures that interventions are evidence-based and aligned to the unique conditions and challenges of individual spaces.

Our approach

We have established a Smart Movement Sensor Library that provides council with a network of 12 pedestrian, vehicle and cyclist counters. The sensor library include a range of:

- Simple technologies which are easy to install and relocate for short-term deployments
- Sophisticated sensors using artificial intelligence, machine learning and three-dimensional technologies for longer-term deployments

The sensor library provides an opportunity for council to maximise the value and benefits of smart technologies and data across broad business areas. It supports the delivery of several council and wider priorities including:

- Traffic and Road Management Plans
- Local Area Management Plans
- Economic Development Strategy
- Open Space Strategy
- Safe Travel and Bike Strategies
- Yarra Smart City Approach

Data collected from the sensors will help to provide insights into our streets, parks and recreation spaces, bike trails and roads. It will also assist in identifying business-critical needs, accurately evaluating risk, optimising engagement strategies, data storytelling, and analysis to inform future planning.

Project snapshot

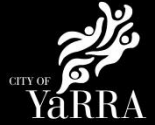|		
Artificial Intelligence (AI) and Machine Learning	Deep analytics and three dimensional imagery	Ultra high accuracy - 95% to 99%
Infrared and heat seeking technologies	Advanced and predictive sensing	Long-life battery, solar and mains power

Connect with us

Please contact us to learn more about this project and others like it. We look forward to connecting with you as we progress Yarra Council's Smart City Approach.

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