



aimes

Ecosystem for
transport innovation

The University of Melbourne is hosting a world-first project with 50 partners in government, transport and tech – AIMES, the first and largest ecosystem of its kind. AIMES, the Australian Integrated Multimodal EcoSystem, is testing highly integrated transport technology with a goal to deliver safer, cleaner and more sustainable urban transport outcomes globally.

AIMES is taking engineering to the streets, collecting and computing data from smart sensors and systems installed across 100km of Melbourne's inner North – a living laboratory – complete with all the realistic complexities, obstacles and rules that come with urban travel.

This network of smart sensors is designed to connect all parts of the transport environment. The focus is on multimodal transport – connected vehicles, connected public transport, connected pedestrians and cyclists, intersections and smart public transport stations.

Impacts at a glance



The global market for smart transport solutions based on integrated digital infrastructure is estimated to be worth more than

\$250 billion

by 2021



The annual economic cost of road crashes and congestion in Australia is estimated a

\$27 billion and
\$18 billion

per annum respectively



Connected transport can reduce the economic cost of road crashes by more than

90%

and help reduce the cost of congestion

In partnership with



For more information, visit us online:
eng.unimelb.edu.au/aimes



Aimes ecosystem

The connected ecosystem makes up the largest ever inner-city grid of streets mapped with diverse, intelligent and distributed sensors to monitor real-time flow of vehicles, cyclists, pedestrians and public transport through the grid. The ecosystem enables in-depth testing and unprecedented implementation of connected transport technology. It offers a platform for government, industry and academia to work collaboratively to explore better transport outcomes in a dynamic real-world environment including:

- » Real-time information to users
- » Real-time, proactive operational management
- » Prevention of traffic incidents and congestion
- » Comprehensive testing ground for all connected and automated vehicles trials.

Location

Located on the fringe of Melbourne's central business district, AIMES comprises an ideal mix of road users, road types, infrastructure and traffic challenges:

- » Local roads with low speed and low traffic – ideal for testing on-road intelligent transport technologies and exploring applications for connected and automated vehicles
- » Major arterial roads with heavy traffic, trams and buses – ideal for collecting live traffic data and live simulation
- » A mixed commercial and retail strip – ideal for connected freight and city logistics
- » Several bus and tram routes – ideal for connected public transport testing
- » Major cycling routes and one of the busiest districts used by pedestrians to walk to work – ideal for smart non-motorised applications of connected transport systems.

Testing ground

AIMES is a testing ground for the deployment of Connected Intelligent Transport Systems in complex urban environments, including Vehicle-to-Vehicle (V2V), Vehicle-to-Infrastructure (V2I) and Vehicle to Vulnerable Road User (V2X) communication systems.

What's connected

From cars and cyclists, to trucks, buses, trams and automated shuttles, to stationary sensors placed at intersections and roadside cabinets, AIMES is creating an integrated multimodal transport network.

Collaborate with us

If you're involved in the productivity, safety or efficiency of the transport system, you'll want to be involved in AIMES.

Contact us if you would like to find out how your organisation can benefit from working with AIMES.