Integrated Connected Data *for* Safer more Efficient Transport Management

its australia
Intelligent Transport Systems

MAY 2025

This report provides a summary of findings developed as part of the collaborative research project *Integrated Connected Data for Safer more Efficient Traffic Management Operations* made possible with funding from partners through the iMOVE CRC (Cooperative Research Centre) and supported by the Cooperative Research Centres program, an Australian Government initiative.

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Presidents foreword

In partnership with our members, ITS Australia works to design relevant and practical research projects to support a range of transport industry activities and goals.

At ITS Australia, we build relationships, advocate for industry, and engage with government to inform and advise. Our vision is to ensure transport is safe, sustainable, productive and accessible through the application of technology.

ITS Australia is a proud member of iMOVE Australia, the national centre for applied research and development in transport. As iMOVE participants, we have undertaken to contribute financially over a 10-year period and work to develop and participate in research projects that advance our industry and shape the future of transport in Australia.

ITS Australia is unique amongst iMOVE's partners. As the only not-for-profit member-based organisation, we play a significant role in developing and partnering on projects that provide immediate support to the challenges and uncertainties that face our industry. This is particularly the case in areas where there is a need for national consensus and harmonisation across diverse stakeholder groups.

I am excited to present this report, **Integrated Connected Data for Safer more Efficient Traffic Management**. For transport operators across Australia the two critical areas of focus are the safety and efficiency of the networks they manage, with planning for the future also a key consideration. Promising data sources and technology combined can provide real or near-time information for both proactive and predictive network management.

> **The findings in this report offer real recommendations for operators, service providers and data aggregators working across the network to deliver safer more sustainable and efficient transport networks for all Australians.**

ITS Australia can deliver this and other research projects only with the valued help of our partners, as well as our broader membership. I sincerely thank our partners on this project, iMOVE; the University of Melbourne; the Australian Government Department of Infrastructure, Transport, Regional Development and Communications; Transport Main Roads Queensland, Department of Transport and Planning Victoria, Transport for NSW, Main Roads Western Australia, and Transport Accident Commission.

Yours sincerely,

Silje Troseth

Silje Troseth
President, ITS Australia
April 2025

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Research like this couldn't be completed without the commitment and support from our project partners and researchers and we sincerely appreciate their engagement and enthusiasm for this project and we like to particularly acknowledge the individuals involved from our research and project partner organisations:

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About this report

This research is funded by iMOVE, the Department of Infrastructure, Transport, Regional Development and Communications; Transport Main Roads Queensland, Department of Transport and Planning Victoria, Transport for NSW, Main Roads Western Australia, and Transport Accident Commission, ITS Australia and the University of Melbourne, and supported by the Cooperative Research Centres program, and Australia Government initiative. ITS Australia led this report with research partner University of Melbourne to better understand how data and technology can deliver safer more sustainable transport networks in Australia.

For more information about this project please contact ITS Australia Policy Manager **Stacey.Ryan@its-australia.com.au**

Challenges

Current traffic operations and management practices primarily rely on traditional fixed-location sensors, including legacy loop detectors, and costly CCTV camera systems. However, the rapidly emerging transport technologies such as connected vehicles, communication technology, vehicle telematics, and smart signal control systems have created unprecedented opportunities for new methods in traffic management and control. This project aims to explore the potential of connected vehicle location data and telematics in conjunction with other available data sources, for safer and more efficient traffic.

Opportunities

This project explored the potential of utilising and integrating vehicle location and telematics data from connected vehicles (and bicycles) GPS and gyroscope data, alongside traditional sensors, for modern traffic management systems. The primary goal is to investigate opportunities to enhance traffic safety, efficiency, and environmental sustainability by utilising new and emerging telematics data, developing advanced methodologies, identifying new use cases, and deriving actionable insights. The study also investigated surrogate safety measures (SSMs) based on bicycle movement and risk data for proactive traffic management interventions.

> This project is a fantastic example of how See.Sense data can contribute to international research focused on safer, more efficient transport systems. By capturing the real experiences of cyclists on the road, we've been able to support ground-breaking analysis into crash risk, surface quality, and flow efficiency. These insights are vital for designing infrastructure and policies that protect vulnerable road users. Projects like this demonstrate what's possible when connected micromobility data is included in transport big data, making it possible for multi-modal traffic management. As an industry, we now have the opportunity to apply these learnings globally to create safer, smarter cities.

— **Irene McAleese**
Co-founder & CSO, See.Sense

SEE.SENSE®

> Compass is excited to be a part of the Integrated Connected Data Project, bridging research and industry expertise to drive innovation and real-world applications in connected vehicle data. This collaboration showcases the impact that public-private partnerships have in advancing safer roads, data-driven decision making, and resilient transport infrastructure in Australia and overseas.

— **Emily Bobis**
Co-founder, Compass IoT

COMPASS

01 Executive Summary

Objectives and outcomes

This world-leading research by a multi-party government led team examines untapped data sources with the potential to revolutionise transport management. Examining how to better leverage existing data and technology; and embracing the opportunities offered by connected vehicles; the project determined how data will deliver safer, faster and more efficient road travel, shaping a future of seamless mobility.

Advancing traffic management with data integration

This project explored how vehicle and bicycle location data, gyroscope readings, and other emerging technologies can improve traffic management. By analysing connected vehicle (CV) data, GPS signals, and bicycle telematics, we aimed to enhance safety, efficiency, and environmental sustainability in urban transportation. Our goal was to develop advanced methodologies, uncover new applications, and provide actionable insights for traffic control.

We started with an in-depth analysis of vehicle position data, measuring penetration rates, intersection turn volumes, and speed patterns. High-resolution CV data was combined with traditional sensors, bicycle telemetry, and historical crash reports. Using advanced techniques such as deep reinforcement learning (DRL), physics-informed neural networks (PINNs), and spatial mapping, we reconstructed traffic patterns, optimised intersections, predicted road hazards, and estimated emissions. To support real-time monitoring, we also built an interactive visualisation dashboard.

Our findings showed that AI-driven models using CV data improved traffic signals, reducing delays and congestion. Bicycle data helped pinpoint dangerous locations and risky behaviours often missing from crash reports. The dashboard provided real-time insights, empowering traffic managers to make faster, data-backed decisions.

We discovered that:

Bicycle-related crashes happened more often at intersections:

59%

than mid-block locations:

41%

with hotspots in city centres.

Harsh braking and swerving events, captured by gyroscope sensors, strongly correlated with potential crash sites.

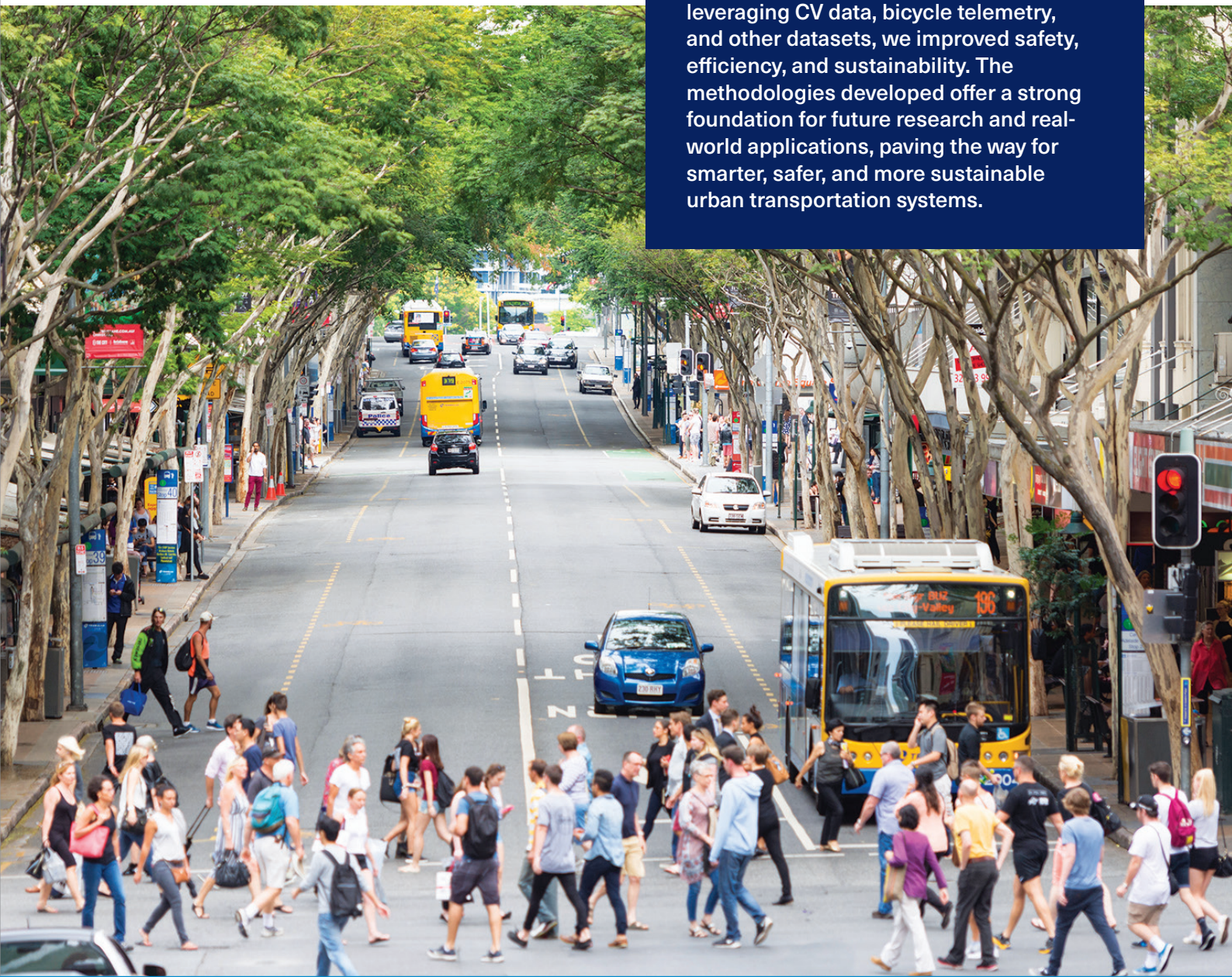
This data provided an early warning system, **allowing authorities to address road safety issues proactively**.

Deep reinforcement learning models using high-resolution CV data outperformed traditional traffic signals, reducing travel times and queue lengths. Computer vision models, enhanced with transfer learning, improved conflict prediction.

By studying driving behaviours at intersections—such as how vehicle type, signal phases, and time of day influenced movement—**we identified opportunities to enhance traffic flow and safety**.

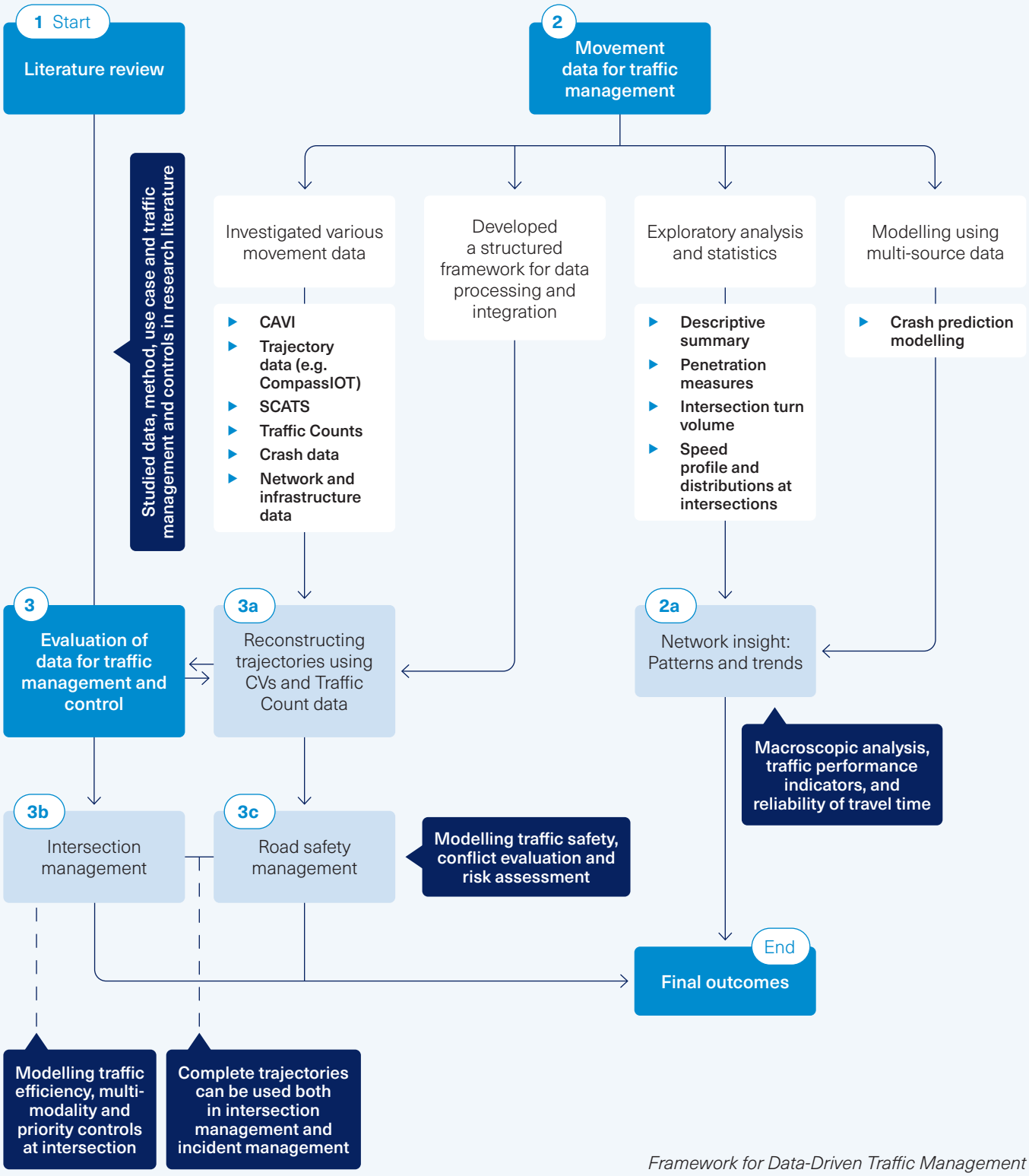
Reconstructed vehicle trajectories also helped estimate emissions, showing how traffic dynamics directly impact pollution levels. Unlike traditional traffic simulations, real trajectory data provided more accurate insights, proving valuable for **reducing emissions through better traffic planning**.

This project demonstrated how integrating multi-source data can transform traffic management. By leveraging CV data, bicycle telemetry, and other datasets, we improved safety, efficiency, and sustainability. The methodologies developed offer a strong foundation for future research and real-world applications, paving the way for smarter, safer, and more sustainable urban transportation systems.



Methodology

Project strategy and pipeline: A structured framework developed for using multi-source data for different aspects of traffic management and control



Framework for Data-Driven Traffic Management

Data-driven traffic management framework

We built this framework on a thorough review of existing research on data, methods, use cases, and traffic controls. This review identified best practices, exposed knowledge gaps, and determined the most effective methodologies for improving traffic management. Additionally, we interviewed government and industry stakeholders across Australia to understand how they integrated emerging data sources and technologies.

Analysing big data for traffic insights

We conducted an extensive analysis of movement data to understand traffic dynamics, beginning with **data fusion**. This process combined multiple datasets, including:

- **SCATS** (Sydney Coordinated Adaptive Traffic System) signal data
- **CAVI** (Cooperative and Automated Vehicle Initiative) trajectories
- **CompassIOT** (connected vehicle data)
- **Traffic counts** from loop detectors
- **Bicycle telematics data** and **network infrastructure maps**

We developed an automated processing framework to clean, transform, and prepare this data for use in traffic management algorithms. Our key steps included:

- Analysing trends and patterns from connected vehicle data
- Estimating the proportion of connected vehicles in overall traffic
- Calculating intersection turn volumes and speed profiles
- Developing crash prediction models
- Merging vehicle trajectory data with upstream traffic counts

Applying multi-source data for traffic control

Next, we used reconstructed vehicle trajectories and traffic counts in real-world traffic management applications. We tested and refined these data applications to improve traffic control systems. Our focus areas included:

- **Intersection signal control and multi-modal traffic operations**
- **Micromobility management**, improving bicycle safety and efficiency
- **Computer vision for traffic safety**
- **Network and freeway management**
- **Emission estimation**

This phase formed the core of our project, generating evidence-based insights on how reconstructed vehicle trajectories could enhance traffic management and create safer, more efficient transport systems.

Emerging data sources and technologies

Several technologies can enhance real-time transport management, including probe data, video analytics, and infrastructure-based monitoring. Stakeholders emphasised the need for data that captures all transport modes, including micromobility, pedestrians, and active transport users. Potential applications include:

- Congestion and performance monitoring
- Heavy vehicle movement tracking
- Demand management and congestion pricing
- Speed compliance enforcement
- Disaster response
- AI-driven traffic predictions
- Coordinated corridor improvements

Challenges in data integration

While integrating new data offers significant benefits, stakeholders highlighted several challenges:

- **Privacy & Security**
  Ensuring trust and reliability in data use.
- **Infrastructure Upgrades**
  Modernising traffic control systems to process new data.
- **Data Accuracy & Bias**
  Addressing inconsistencies in location and speed data.
- **Predictive Limitations**
  Improving models to better reflect real-world conditions.
- **Cost & Accessibility**
  Overcoming economic barriers and ensuring feasibility in rural areas.
- **Interagency Coordination**
  Aligning policies across different government levels.

Despite these challenges, integrating real-time data holds immense potential to transform transport operations, enabling smarter, safer, and more efficient mobility solutions.

Enhancing incident response and safety

For traffic incident management, we demonstrated how combining CV data with computer vision models can improve road safety. By analysing high-resolution CV data, we identified potential conflict points and risky driver behaviours, enabling proactive safety measures that help prevent accidents before they occur.

These findings highlight the powerful role of data in shaping the future of traffic management—making roads safer, reducing congestion, and optimising mobility for everyone.

Multi-source data for traffic control

Intersection signal control and multi-modal traffic operations

Micromobility management, enhancing bicycle safety and efficiency

Computer vision for traffic safety

Network and freeway management

Emission estimation

Stakeholder insights on data integration for transport management

A comprehensive review of literature and interviews with Australian government and industry stakeholders revealed key priorities for integrating data and technology into transport network management. The focus is on leveraging existing and emerging data sources to enhance safety, efficiency, and sustainability while navigating associated challenges.

Key priorities for transport operators

Transport operators are primarily focused on two goals:

1. **Improving Safety**
   Working towards reducing road fatalities to zero.

2. **Enhancing Efficiency & Sustainability**
   Optimising network performance across traffic management domains, including incident response, intersection control, freeway operations, and micromobility integration.

> **Probe data—real-time vehicle position tracking—emerged as a valuable tool for predicting traffic patterns and informing decision-making. There is also growing interest in using this data for long-term infrastructure planning.**

Emerging data sources and technologies

Several technologies can enhance real-time transport management, including probe data, video analytics, and infrastructure-based monitoring. Stakeholders emphasised the need for data that captures all transport modes, including micromobility, pedestrians, and active transport users. Potential applications include:

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- Speed compliance enforcement
- Disaster response
- AI-driven traffic predictions
- Coordinated corridor improvements

Tools and platforms

Making traffic data easy to understand

Data visualisation turns complex traffic information into clear, actionable insights. In traffic management, visualising data helps uncover patterns, trends, and anomalies that might be hidden in raw numbers. To make this process more intuitive, we developed an **interactive data visualisation dashboard** focused on evaluating traffic speed reliability using connected vehicle (CV) data.

Although CV data in this project represents only about **2% of total traffic**, it captures key traffic patterns and provides valuable insights.

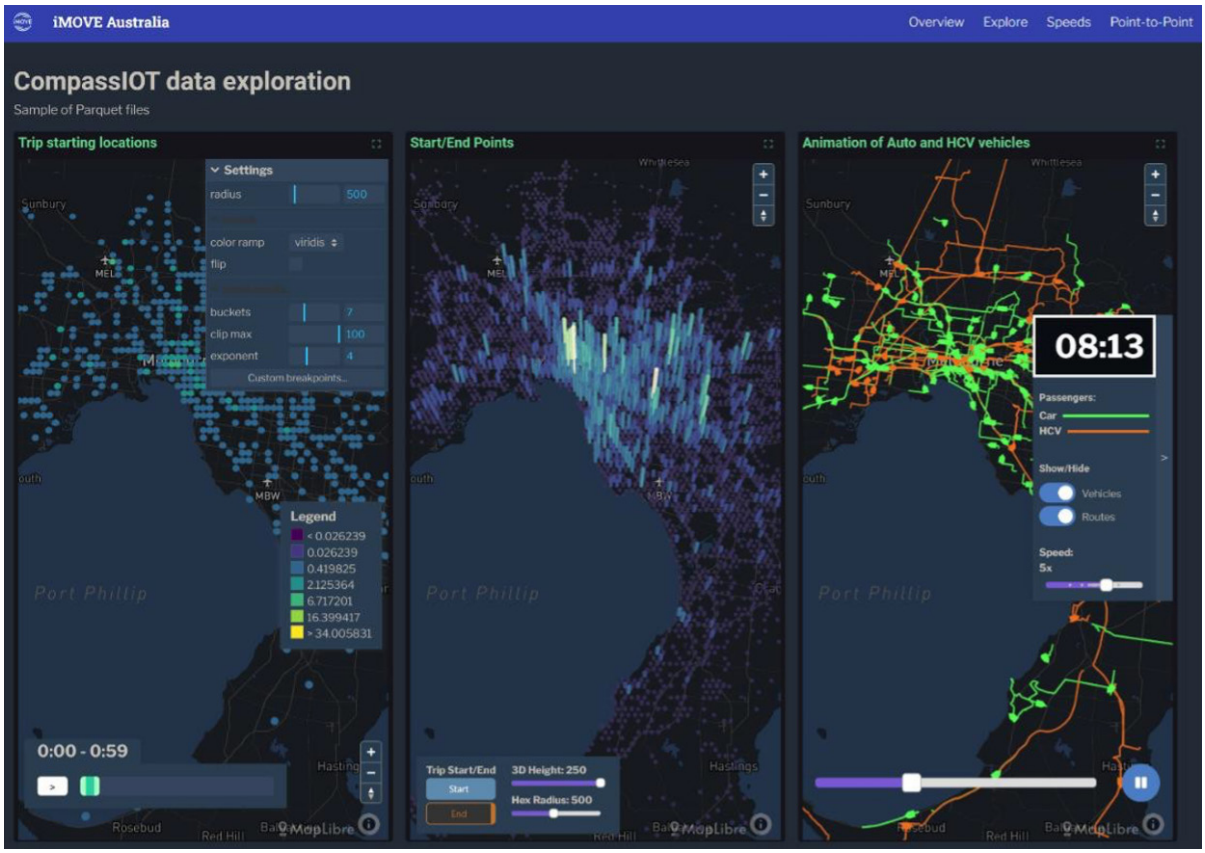
The dashboard makes this data accessible through an easy-to-use interface, allowing traffic managers and researchers, beyond just data analysts, to explore and understand traffic speed reliability in real time.

Interactive features for better traffic decisions

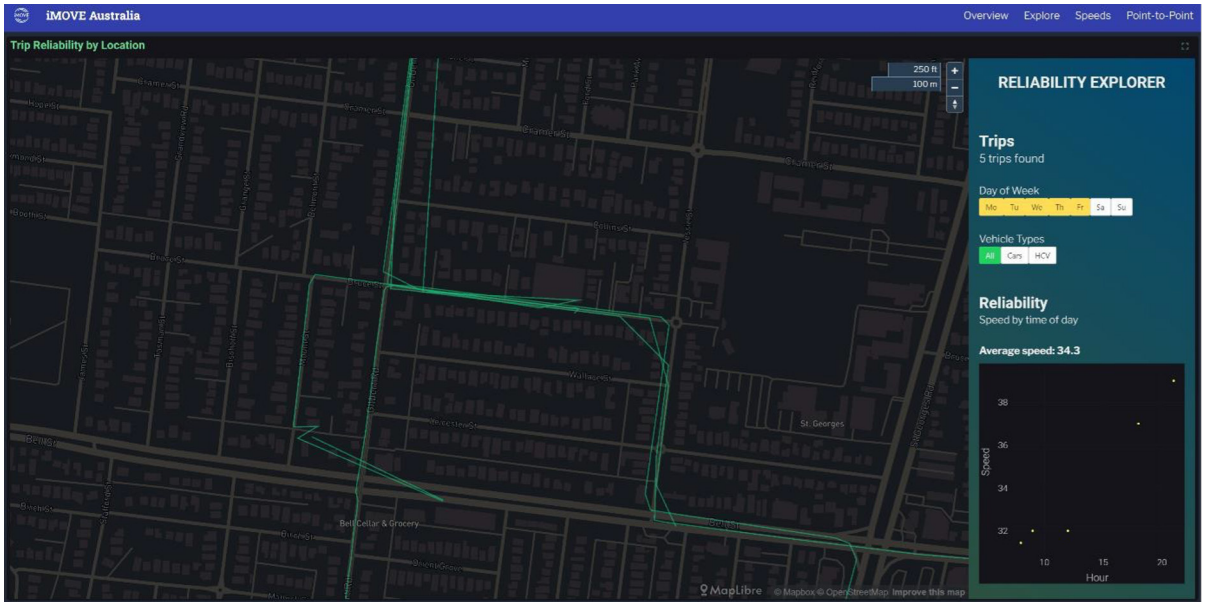
The demo version of the dashboard includes two key functions:

- **Traffic Overview** – Provides a high-level understanding of overall traffic conditions and performance (Screenshot 1).
- **Speed Reliability Evaluation** – Assesses the consistency of travel times on specific routes based on CV data (Screenshot 2).

By analysing this representative traffic sample, the dashboard helps users make informed decisions, refine traffic management strategies, and improve overall road conditions. Through clear visuals and real-time insights, it brings data-driven decision-making into everyday traffic operations.



Screenshot 1: Traffic overview page of the iMOVE Australia data exploration dashboard. The page includes three interactive subplots showing (a) trip starting locations, (b) start/end points, and (c) an animation of auto and HCV vehicles.



Screenshot 2: Single-point travel speed reliability evaluation. The map displays trips passing through a selected location, with the reliability explorer showing speed statistics for the chosen day of the week and vehicle type.

02 Driver behaviour and safer streets

Road intersections play a critical role in urban transportation systems, where frequent fluctuations in vehicle acceleration, deceleration, and queuing contribute to higher safety risks, emissions, and fuel consumption.

Accurately identifying driving styles and speed patterns at intersections helps forecast these risks and informs strategies for safer and more sustainable driving. This study leverages telematics data and traffic signal settings to uncover spatiotemporal driving behaviour patterns at intersections.

To conduct this analysis, researchers examined over 41 million path trajectories from 2022, sourced from Compass IoT. They enriched the data by incorporating signal setting information from the Sydney Coordinated Adaptive Traffic System (SCATS). By evaluating how vehicles interact with traffic signals, the study identified distinct driving styles and their prevalence, offering key insights for urban planning and traffic management.

Understanding and analysing speed profiles and driving styles within intersections is crucial for enhancing safety and efficiency in urban environments. This research employed telematics data and intersection signal settings, using sequential clustering to reveal distinct driving behaviours at intersections. The study provides valuable insights for urban planning, traffic management, and educational initiatives to promote safe and sustainable driving practices.

Summary of key findings

1

Distinct Driving Styles: The study identified 16 distinct driving scenarios based on vehicle type, time of day, and traffic signal status.

2

Green Signal Phases: Most vehicles maintained speeds between 50% and 70% of the speed limit, while a small percentage of drivers exceeded speed limits, particularly among passenger cars.

3

Red Signal Phases: A small but notable number of passenger cars crossed intersections illegally during red signals, while commercial vehicle drivers followed traffic rules more consistently.

4

Yellow Signal Phases: Most drivers stopped at yellow signals, but a subset, mainly passenger car drivers during rush hours, crossed at high speeds.

5

Driving Style Variability: Commercial vehicle drivers exhibited greater caution, while passenger car drivers displayed a wider range of behaviours.

6

Rush Hour and Vehicle Type Effects: Rush hour conditions and vehicle types significantly influenced driving styles, with passenger cars engaging in riskier behaviours more frequently during peak hours.

7

Intersection Safety and Efficiency: Understanding these driving patterns is essential for developing strategies that enhance safety and efficiency at intersections.

This study provides a comprehensive understanding of intersection driving behaviours, offering actionable insights to improve urban traffic management and road safety.

03 Reducing congestion and emissions

Understanding tailpipe emissions at scale

This study offers a groundbreaking look at tailpipe emissions using real-world trajectory data, capturing the true dynamics of road traffic. Unlike traditional simulation models, this approach provides a more accurate picture of how traffic conditions influence CO2 emissions.

> **The findings highlight how both traffic volume and congestion play crucial roles in shaping emission levels, with distinct differences in their effects.**

Real-world vehicle trajectory data proves to be more effective than simulations in capturing emission intensity and variability. One key insight is that unpredictable congestion leads to inconsistent emissions, making congestion management essential for improving air quality. Emissions fluctuate based on traffic volume and flow patterns, varying by time of day and week.

Morning rush hours on weekdays create more volatile emissions than afternoon peaks, which tend to be more uniform. On weekends, peak periods start later in the morning and show lower emission fluctuations due to steadier traffic flow. Additionally, emissions drop as vehicles slow down near intersections or at the end of queues, reinforcing the link between speed, acceleration, and air pollution.

The study also maps emissions across time and space, revealing that the highest intensities occur well before intersections and gradually decline as vehicles decelerate. Emissions peak during rush hours on both weekdays and weekends, while off-peak periods show more stable emission patterns. Encouraging travel during off-peak hours could help balance emissions and ease congestion. Real trajectory data further exposes localised emission hotspots that might be overlooked in traditional models, offering new opportunities for targeted traffic management strategies.

The role of electric vehicles in reducing emissions

Introducing electric vehicles (EVs) into the traffic mix significantly lowers emissions. A fleet composed of just 10–20% EVs already demonstrates noticeable reductions, emphasising the impact of fleet composition on overall pollution levels.

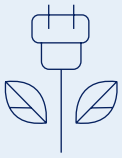
Interestingly, emissions per vehicle per second are lower during peak hours due to reduced speeds and acceleration but rise during off-peak times when vehicles accelerate more freely. However, emissions per meter of road remain higher during peak hours because of overall traffic volume and congestion. Increasing EV adoption helps smooth and reduce emissions throughout the day, making a compelling case for both electrification and strategic speed management.

We evaluated the impact of increasing EV adoption within the fleet. The baseline scenario (100% internal combustion engine vehicles) was compared to scenarios with 10% and 20% EV adoption.

Findings:

A 10% EV adoption

resulted in a ~10% emission reduction.



A 20% EV adoption

led to a ~25% reduction...

...showing a non-linear relationship, suggesting additional research is needed.

There was no significant difference in emission reduction between weekdays and weekends, indicating **consistent benefits of EV adoption**.

A path toward a low-carbon future

The study concludes that a combination of **effective speed management** and **widespread EV adoption** offers the best strategy for cutting emissions and creating a more sustainable transportation system.

> **By integrating real-world traffic data with targeted policy measures, cities can move closer to a low-carbon future while improving traffic efficiency and air quality.**

Understanding traffic dynamics is crucial for optimising transportation systems and enhancing urban mobility. Vehicle trajectory reconstruction plays a significant role in analysing fuel consumption and emissions, particularly at intersections. The primary objective of this study is to provide insights into how effective traffic management and the adoption of sustainable transportation options, such as EVs, can mitigate environmental impacts.

By leveraging real trajectory data, this research offers valuable information for developing strategies aimed at reducing emissions and promoting sustainable urban transport solutions.

04 Understanding how AI can predict road conflicts before they happen

Imagine if we could spot dangerous traffic situations before they turn into accidents. That's exactly what this study is working toward, using the power of artificial intelligence (AI) and computer vision.

How the technology works

Researchers enhanced a smart computer vision system called YOLOv8—think of it like the AI eyes of a self-driving car. Originally, this model could spot everyday things like people, chairs, or phones in images. But in this case, it was re-trained to recognise vehicle movement patterns and spot early warning signs of traffic trouble, like near-collisions or risky lane changes.

To teach the model, researchers fed it thousands of snapshots showing how cars moved—these included plots of car paths (called trajectories) and information about whether those movements led to conflicts. The model learned to predict when and where conflicts might occur based on this historical data.

To check how well the AI was doing, the team used a score called "Mean Average Precision" (or MaP for short). This is like a report card that tells us how good the AI is at spotting traffic issues in the right place and time. A perfect score is 100%, and the improved model scored over 80%—a strong result.

At first, the team tried to train the AI to recognise how *severe* a traffic conflict might be—ranging from minor fender-benders to deadly crashes. But the data for the more serious crashes was too limited, making it hard for the AI to learn reliably. So they switched tactics.

Instead of looking at severity, the team re-framed the problem by teaching the AI to classify conflicts based on how *expensive* the resulting damage would be. For example, a minor scratch might cost little, while a major collision could cost thousands. They created nine categories—like rear-end collisions ranked from level 0 to 4, and lane-change incidents from level 0 to 3.

> **Rather than using one big model to detect all types of conflicts, the team created a group of smaller models—each one trained to specialise in just one type of conflict. This "ensemble model" approach turned out to be a game-changer, nearly doubling the AI's accuracy compared to the all-in-one version.**

A cost model was developed which detects conflicts based on the cost of damages incurred, with 9 difference levels and corresponding cost ranges.

Finding the sweet spot

> **Another discovery: the AI worked best when analysing images with a specific size—500x500 pixels. This size gave the clearest view for detecting conflict patterns accurately, compared to smaller image sizes.**

Key takeaways

- The AI model (YOLOv8) was successfully enhanced to predict traffic conflicts using visual data of vehicle movement.
- Instead of predicting injury severity, the team focused on predicting the *cost* of conflicts, which proved more reliable.
- Dividing the AI into several specialised models (an “ensemble”) led to much better performance.
- The most accurate results came from analysing images sized 500x500 pixels.

05 Understanding traffic and emissions: what real vehicle movements can teach us

Imagine being able to watch how every car moves through a city – where it slows down, stops, and speeds up. Now imagine using that information to understand how much pollution those cars create. That's exactly what our study did.

We used real data from connected vehicles – cars that share their location and speed with sensors – to recreate how traffic flows through busy intersections during different times of the day. Unlike older studies that used guesswork or simulations, we looked at real-life vehicle movement to understand how traffic conditions affect emissions.

What we looked at

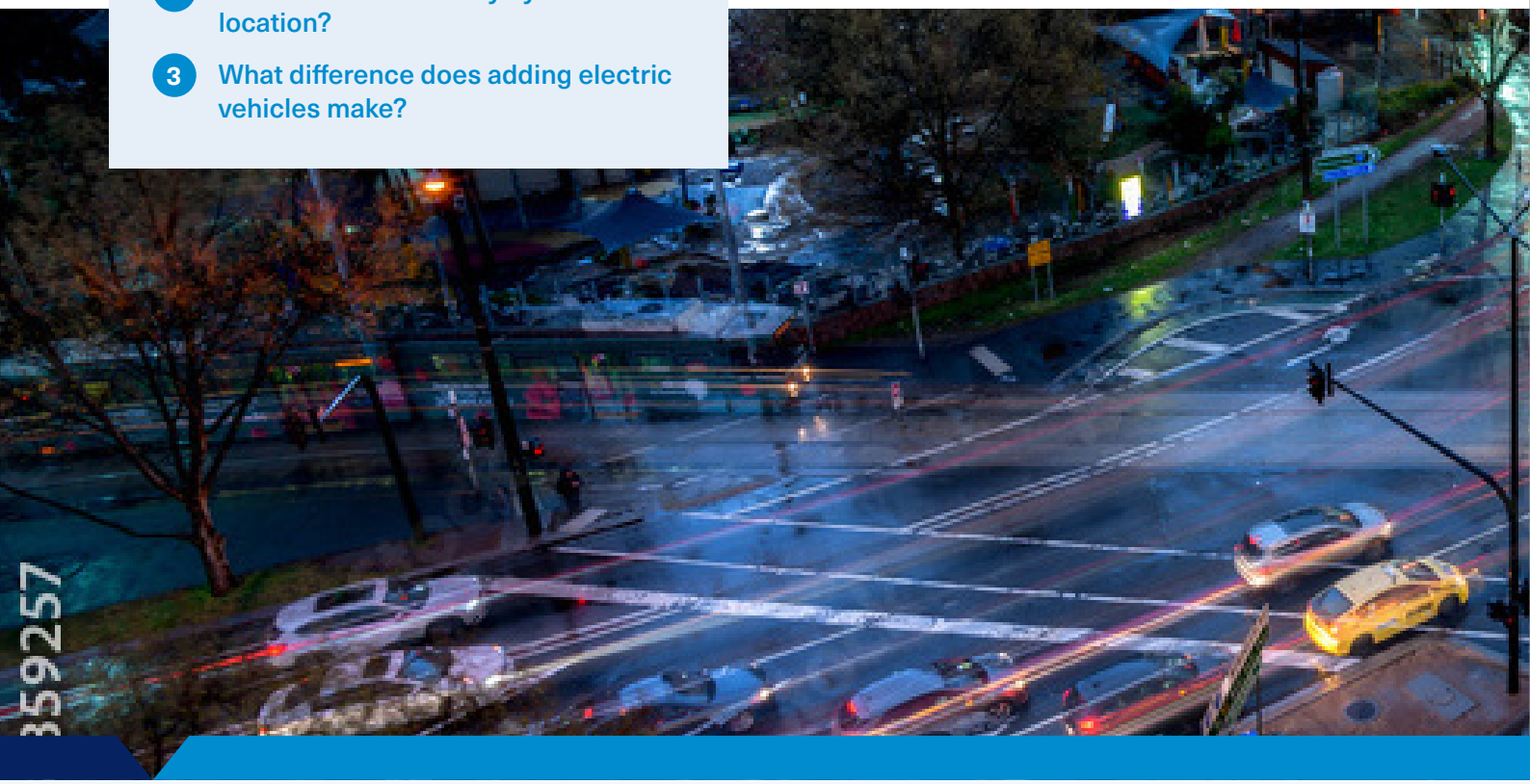
Our study focused on three big questions:

1. How do different traffic conditions affect emissions?
2. How do emissions vary by time and location?
3. What difference does adding electric vehicles make?

What we found

During busy weekday mornings, traffic was more chaotic. Cars were stopping, starting, and accelerating more often especially near intersections. These patterns caused higher and more variable emissions. In contrast, afternoon rush hours were more predictable, and emissions were slightly more stable.

On weekends, traffic was calmer. The busiest time was later in the morning, but overall, cars moved more smoothly, and emissions were lower and more evenly spread.



We found that emissions are worst not just at intersections, but far before cars even reach them. This is because cars start slowing down and forming queues upstream, especially during peak hours. During off-peak and other times when traffic is smoother emissions stay lower and more consistent throughout the road.

> **This tells us that managing how traffic builds up in certain places can be just as important as managing the flow at intersections themselves.**

We looked at what would happen if 10% and 20% of vehicles were switched to electric. As expected, emissions dropped. A 10% switch led to about a 10% drop in pollution. A 20% switch actually led to **more than** a 20% drop—around 25% less emissions. That's a powerful signal that electric vehicles can help cities clean up their air.

You might think that slower traffic always means worse pollution, but that's not always true. During rush hour, even though cars were moving slowly, they weren't accelerating much. That actually led to **less** pollution per car per second. In contrast, during quieter times, cars could drive and accelerate more freely—which led to **more** pollution per vehicle, even though fewer cars were on the road.

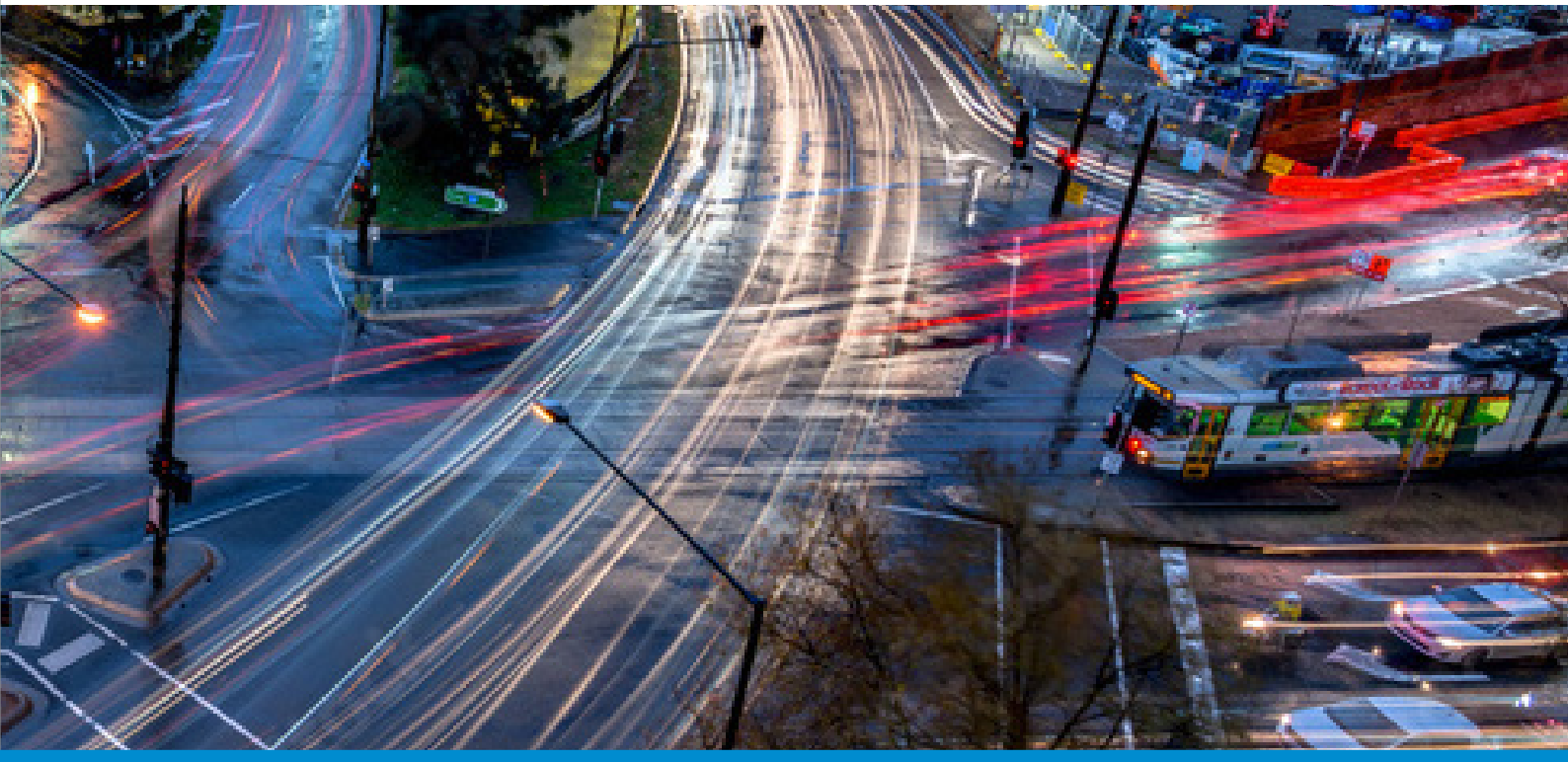
But because there are **more** vehicles during rush hour, the **total** pollution during peak times is still higher overall.

What this means for cities

Our study shows that small changes can make a big difference:

- **Improving traffic flow**—especially before intersections—can reduce emissions.
- **Encouraging travel during off-peak hours** helps spread out traffic and pollution.
- **Switching even a small percentage of vehicles to electric** can dramatically cut emissions.
- **Managing vehicle speeds**, especially preventing unnecessary acceleration, can reduce pollution.

By using real-world data from actual vehicle movements, we're now better equipped to design cities that are cleaner, healthier, and smarter about traffic.



06 How cycling data made an impact

As part of the project, See.Sense sensor data delivered real-world insights into cyclist behaviour, safety, and journey efficiency. By combining this with other traffic data, the project uncovered valuable findings to help design safer, more efficient streets.

Bicycle safety and risk identification

Cycling safety is often compromised at busy intersections and high-traffic areas.

Key findings included:

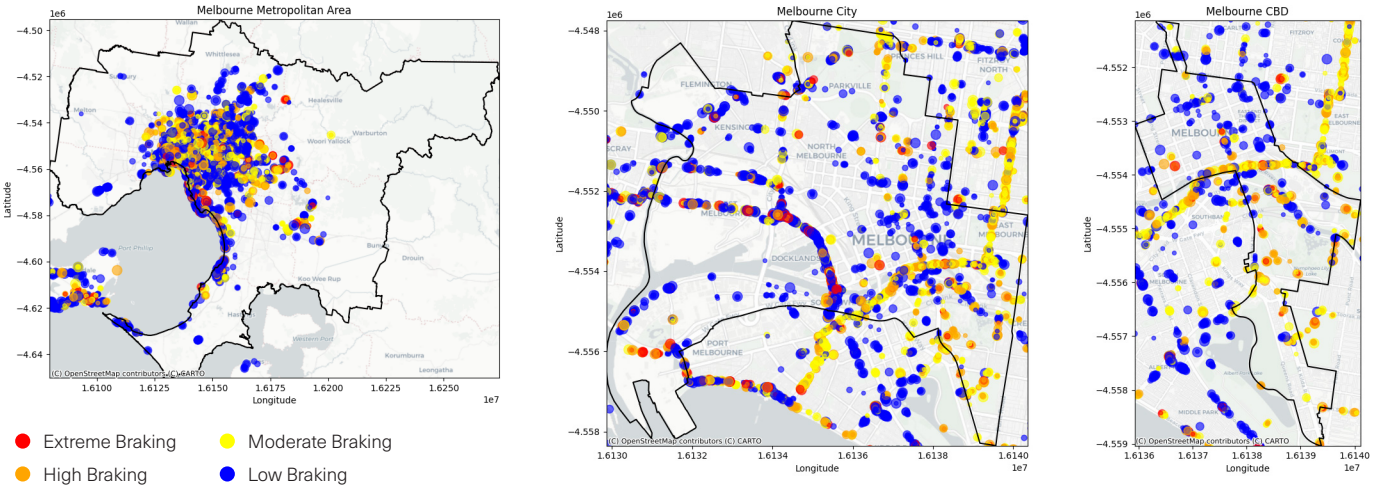
- **Crash risks at intersections**
  59% of bicycle-involved crashes occurred at intersections.
- **Harsh braking and swerving hotspots**
  See.Sense data was a strong indicator of potential crash sites, effectively identifying hotspots for improvement.
- **Surface quality insights**
  See.Sense data highlighted poor road surfaces, identifying locations needing maintenance to prevent incidents.

Bicycle flow efficiency

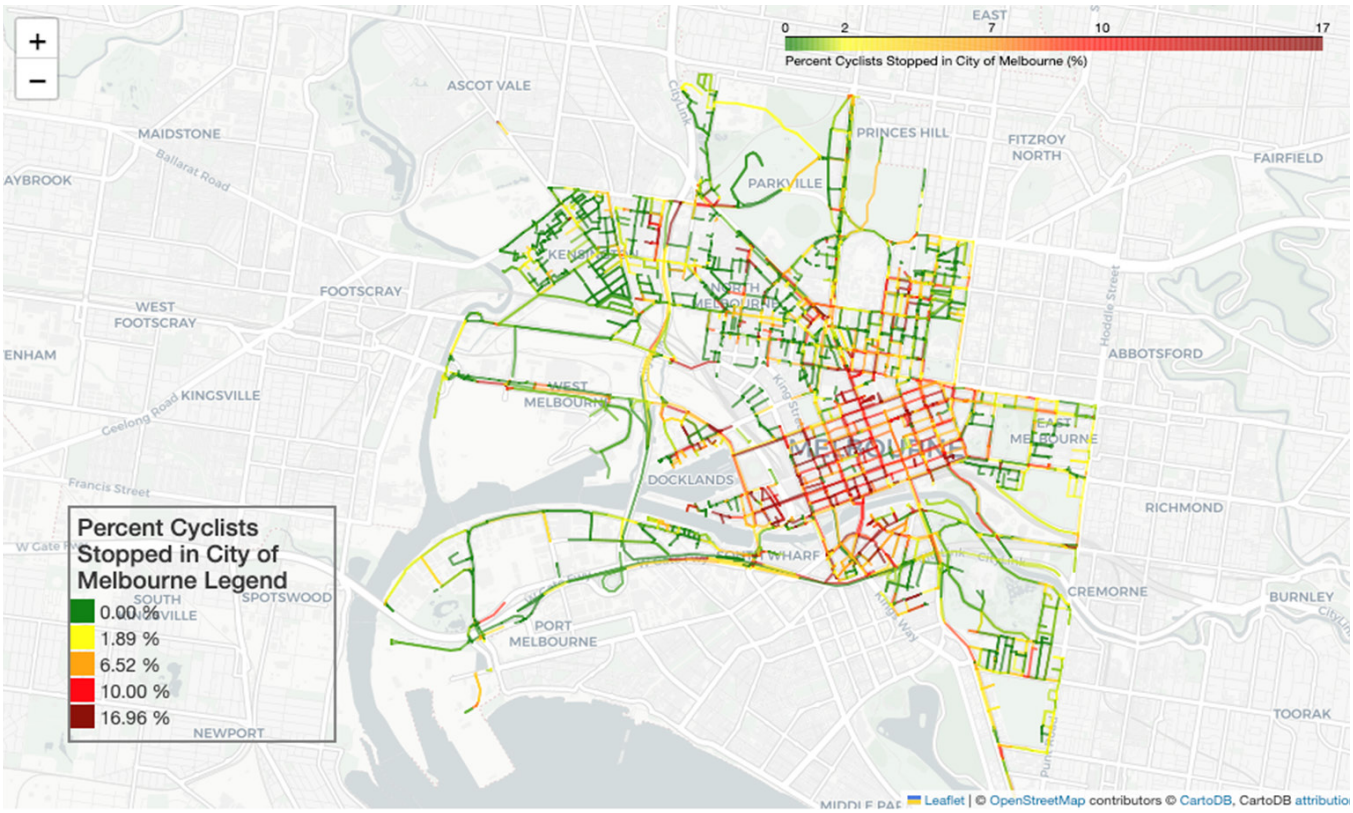
Delays and slow speeds are a common challenge for cyclists, particularly in urban centres.

The data from See.Sense showed:

- **Longer delays at major intersections**, especially where car-prioritised signals dominate.
- **Better performance on dedicated bike paths**, which allowed higher speeds and smoother journeys.
- **Cyclist profiles identified through machine learning**, revealing patterns across commuter, leisure, and delayed cyclist groups.



Areas of Extreme, High, Moderate and Low Braking in City of Melbourne identified with See.Sense data



Percentage of Cyclists Stopped in City of Melbourne, identified with See.Sense data

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Intelligent Transport Systems

About ITS Australia

ITS Australia is the peak body for advanced transport technology in Australia supporting the delivery of safer, more efficient, sustainable transport solutions. Representing our industry for over 30 years we are locally and internationally recognised as a leader in our field.

We inspire, guide and support the application of ITS across smart transport infrastructure, connected and automated transport, and intelligent mobility. We connect a thriving Australian ITS ecosystem and inspire extraordinary achievements through cooperative collaboration.

We are the largest single gathering of industry, government and academia dedicated to the research, development and deployment of ITS technologies in Australia.

Our Vision

Transport is safe, sustainable, productive and accessible through the application of technology.

Our Mission

Shaping future transport by leading and inspiring our industry. We champion Australian expertise, foster global opportunities, and nurture a resilient and vibrant transport sector now and into the future.

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