

Proactive and Predictive Incursion Protection for Roadside Workers



Forsite
Connected Safety™

A connected safety platform that detects and evaluates approaching vehicle risk, giving workers more time to act.

Prepared for National Incursions Working Group

23 July 2026



Forsite
Connected Safety™

Forsite Safety has operational deployments in Australia and now mobilising across European and UK programmes.

Successfully partnered with tier 1 construction companies, major construction projects, government asset owners, traffic management companies & incident response operators.

**Every Worker Connected.
Every Worker Protected.**

Forsite Connected Safety.
Powered by Acusensus.



Changing Behaviours, Saving Lives



Designed for Industry Deployment

Incident response

Live lane working

IPV-protected operations

Single and dual carriageway works

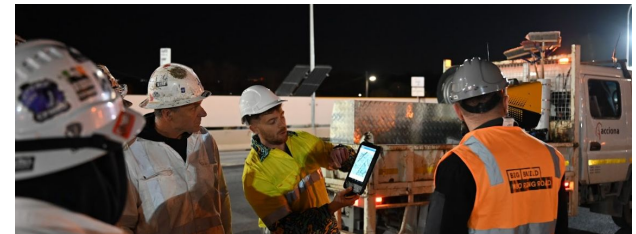
Hard shoulder working

Static lane closure

Maintenance works

Short-notice / reactive works

Motorway | Urban | Rural



The Predictive Safety Loop

1

DETECT

Radar detects vehicle or object movement from 240 metres away, across 6 lanes of traffic.



2

CLASSIFY

Machine learning analyses speed, trajectory, acceleration and lane position to evaluate risk in real time.



3

ALERT

Workers at risk receive targeted vibration, light and sound warnings.

Up to 8 seconds before potential impact, depending on speed / detection method.



4

LEARN

Every event is logged with location, vehicle data, warning time and video for reporting, training and prevention.

240m

Detection

Instant

Classification of inputs to determine risk profile

Up to 8 sec

Advanced warning time

24/7

Continuous protection

Every vehicle, continuously evaluated.

Forsite's predictive risk engine continuously analyses approaching vehicles in real time, assessing their speed, trajectory, acceleration, location/proximity and behaviour to identify potential hazards and trigger alerts before risks fully materialise.

INPUTS - WHAT FORSITE EVALUATES



SPEED



TRAJECTORY



ACCELERATION



PROXIMITY



BEHAVIOURS

FLAGS FIVE KEY RISKS



Excessive Speed

Tripod & Vehicle Mounted

Vehicle travelling above posted/reduced limit on approach.

Risk increases as vehicle approach speed rises.



Acceleration into Risk

Tripod & Vehicle Mounted

Vehicle increasing speed as it nears the work zone.

Threat builds before a breach occurs.



Exclusion Zone Breach

Tripod & Vehicle Mounted

Vehicle crosses the protected safety perimeter.

Instant alert the moment the boundary is broken.



Trajectory Drift

Vehicle Mounted System

Vehicle drifting toward the vehicle without correction.



Sudden Swerve

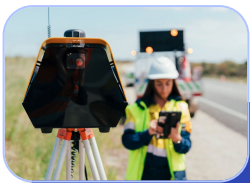
Vehicle Mounted System

Abrupt directional change towards the vehicle.

Forsite identifies risk and protects workers before the risk escalates.

Every Worker Connected, Every Worker Protected.

Forsite connects workers, vehicles and sites into one intelligent network that predicts danger before it happens. Combining machine learning, radar and connected wearables, Forsite transforms safety from reactive to proactive.



Base Station

Radar and camera fusion detects vehicles.

Evaluates speed, trajectory, acceleration and lane position.

Tripod or vehicle-mounted.



Wearables

Multi-sensory alerts delivered through vibration, light and sound.

Tailored and configurable for different worker groups.

Lightweight, rugged, water and dust resistant. Duress activation built in.



Cloud Safety Platform

Each captured alert event logged with location, vehicle speed, warning time and video.

Live site maps, incident review, compliance analytics and heatmaps of high-risk corridors across the network.



Escalating Alerts Tailored to Your Operations

Alert thresholds are **configurable** to match operational environments.

Speed limits, exclusion zones and trajectory sensitivity are set in collaboration with the operating company.

Level 1 NOTICE

Be aware of a potential risk.
A gentle tap on the shoulder.

Subtle vibration pulse

Level 2 WARNING

Assess risk and consider
appropriate action.

Strong vibration + sound + light

Level 3 ALARM

Take immediate action.
Move to a safety area.

Rapid, intense multi-sensory alert



Built for Roadside Work in Any Environment



Tripod Mounted System

Targeted deployments to protect and alert worker groups - systems can be deployed through worksites to maximise coverage



Vehicle Mounted System

System calibrates and alerts are set in 6-10 seconds providing end to end protection before leaving the vehicle.



Reactive to Evidence Led Decision Making

The same road can look safe or risky depending on what you measure. Forsite captures the data that traditional monitoring misses, turning every deployment into network-level intelligence for future traffic management strategy.



Speed Compliance



Driver Behaviour



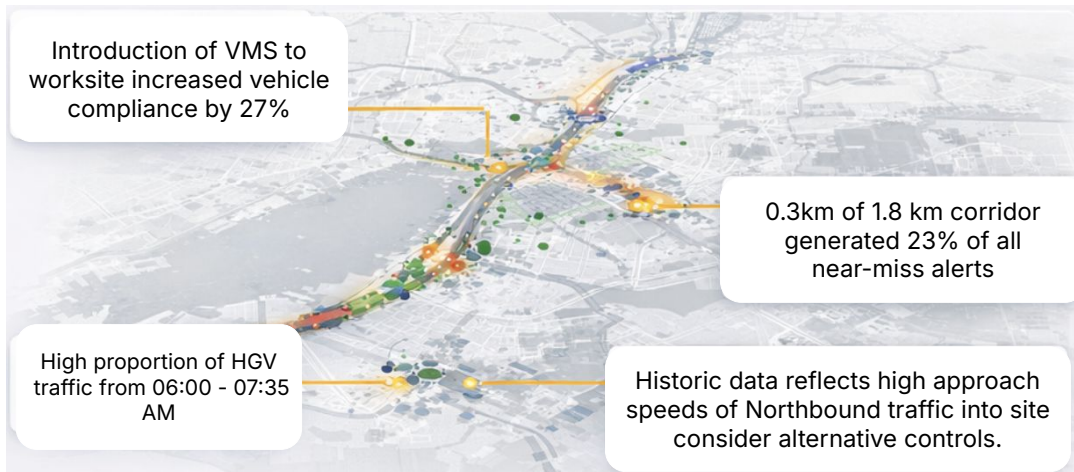
Vehicle Classification



Repeat High-Risk Corridors



Site Risk Profile



Every Forsite deployment generates intelligence that can be used to identify high-risk locations, evaluate traffic management effectiveness and improve the ability to control risk using live and objective data.

Every Incident Captured. Every Near-Miss Documented.



Video Evidence

15 seconds before and after each incident captured automatically



Vehicle Behaviour Data

Speed, trajectory, acceleration and proximity logged



Incident Review

Objective and auditable records in one secure portal



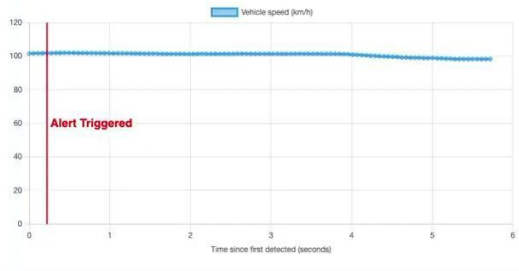
Training and Prevention

Real incidents used for crew safety training



Transparent Inputs

Detail on why the alert was triggered incl. distance captured, alert latency and warning time.



Property	Value
Alert Triggered	25/3/2026 1:07:10 am +11:00
Alert Name	Traffic Alert (80 km/h)
Base Station	guardian-040
Severity	Alarm
Reduced Speed	40 km/h
Posted Speed	110 km/h
Alert Threshold	80 km/h
Direction	Towards
Vehicle Speed	102 km/h
Warning Time Provided	5.5 seconds
Distance From Radar	154.31 m

Creates an objective, auditable record that supports incident review, lessons learned & event logging from every site.



Trajectory Risk

Melbourne - Vehicle Mounted Deployment

Vehicle drifts over fog line on approach to roadside assistance vehicle, alert provided instantly as vehicle drifts into an at risk trajectory providing 3 seconds for the operator.

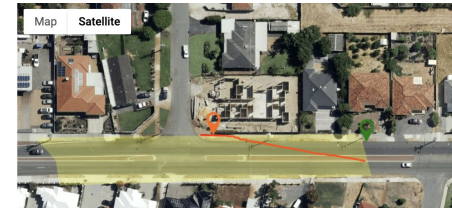
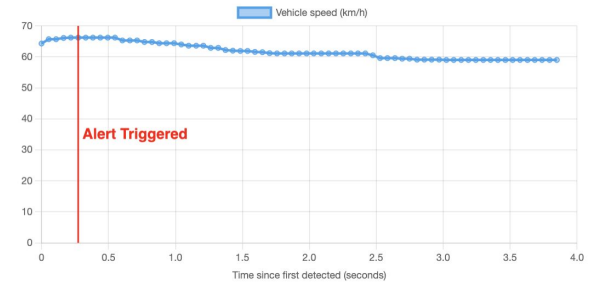


Speed Detection

Perth, Australia

Motorbike undertakes vehicle at speed on approach to worksite.

66 km/h - Alerted within 0.3 seconds





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Click image above to view the video

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