What happens when workers and mobile construction plants interact?

NRSPP
NATIONAL ROAD SAFETY
PARTNERSHIP
PROGRAM

Proudly managed by:
Downer
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AUSTRALIAN ROAD RESEARCH BOARD

Moderator

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Housekeeping

Webinar is = 45 mins

Question time = 15 mins

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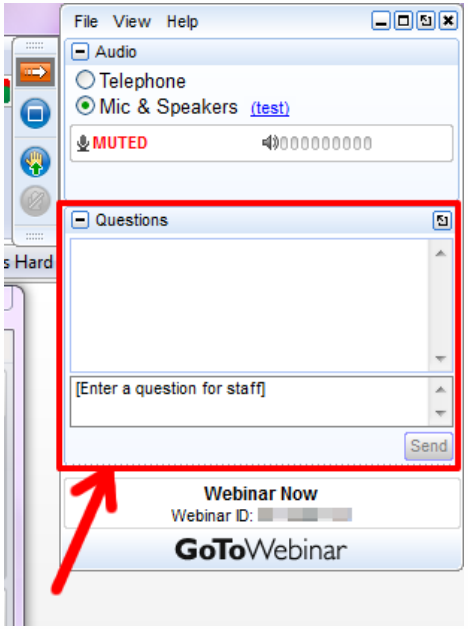
GoTo Webinar functions



Please type your questions here

Today's presenter

Paul Costanzo

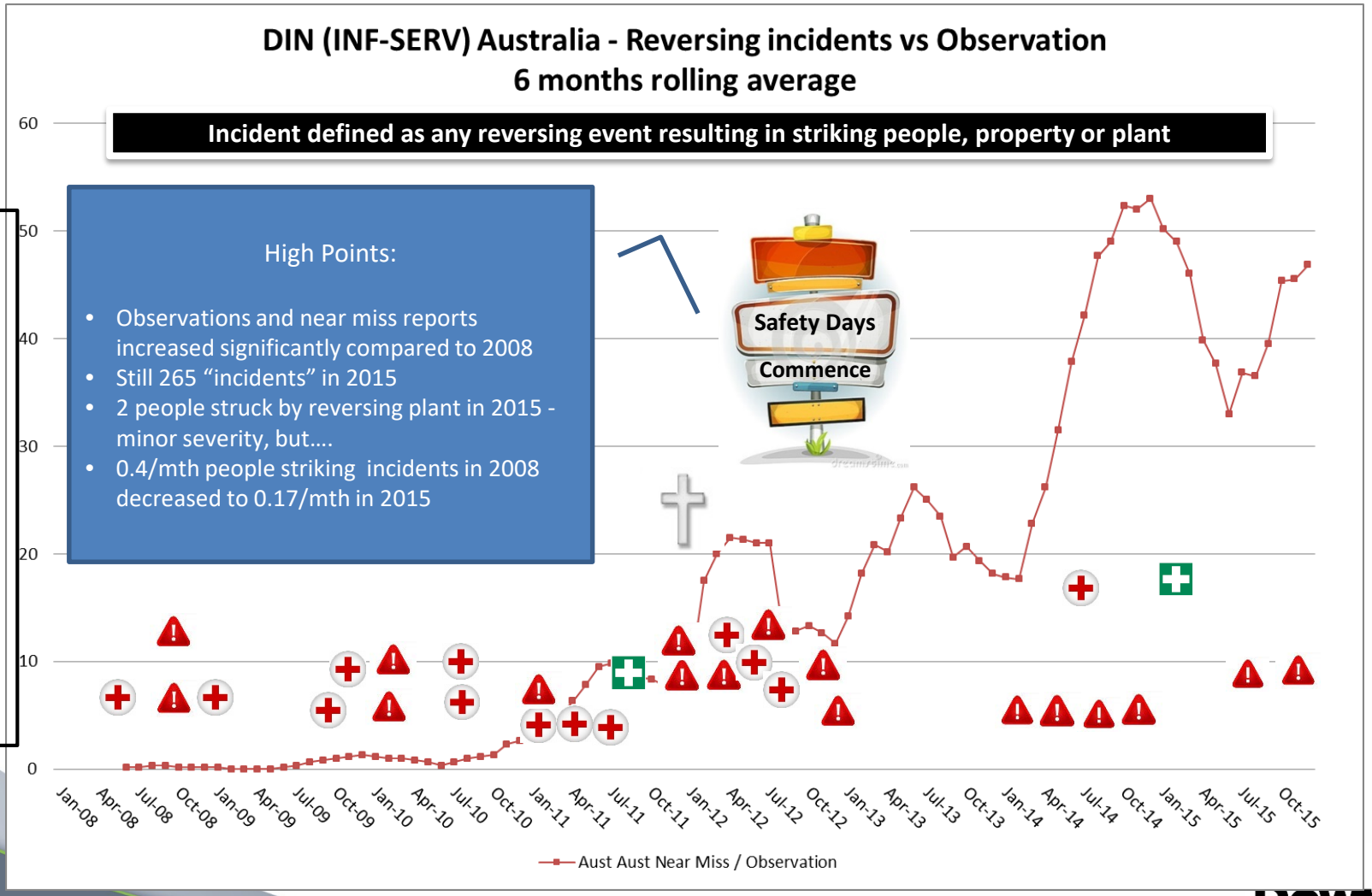
National Plant & Assets Manager

Road Services

What & Why ?

- Technology aspect of live Plant & Pedestrian Interface
- How do we measure impact on cultural change ?

Reversing Incidents (People & Plant Interactions)



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Journey Begins

- CEO driven safety days – Focus on Critical Risks
- Introduce Near miss line
- Mission possible – Engage with 3000+ people in 10 days

A new approach

MISSION:POSSIBLE
Safe position is my mission

The **RED ZONE**

- 10 metres separation
- Between plant and persons on foot
- In the possible direction of travel

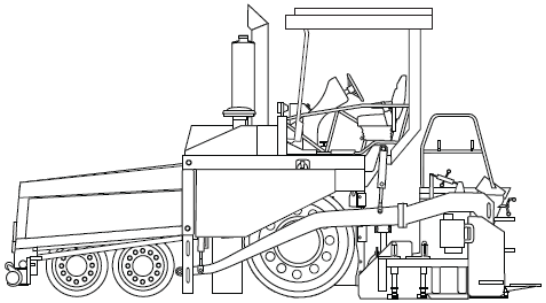
ZERO HARM Downer

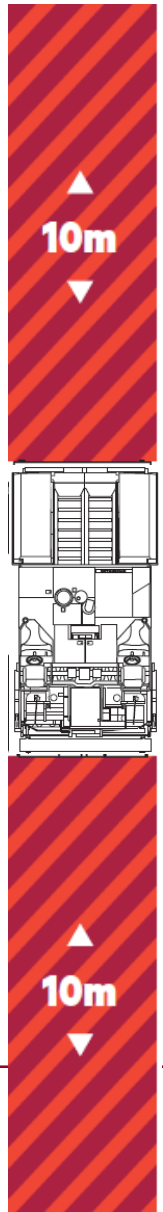
Applying the RED ZONE

MISSION:POSSIBLE
Safe position is my mission

Paver

- 10m **RED ZONE** applies in the possible direction of travel
- Working direction is forward / **RED ZONE** at the rear of the plant not active





Questions

Support Technology

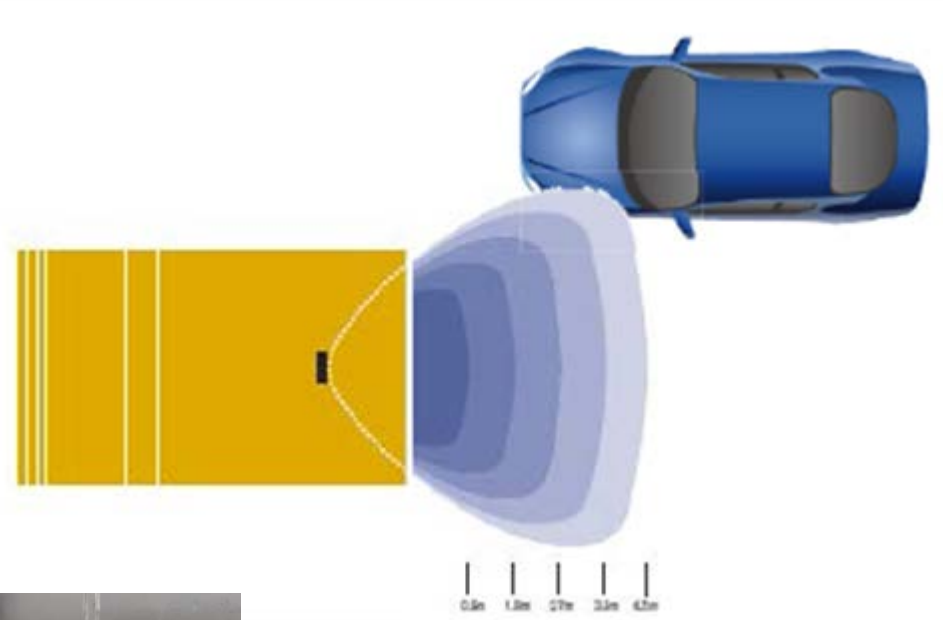
- Showcased technology types
- Core technology types include,
  - Radar, Lidar, Sonar, Sonic, Vision, RFID, Infrared

Key Focus Areas

- Work in all conditions
- Multiple detection states
- Configurable detection zones
- Interface with OEM systems
- Measure and track effectiveness
- Influence culture

Radar & Lidar

Radar

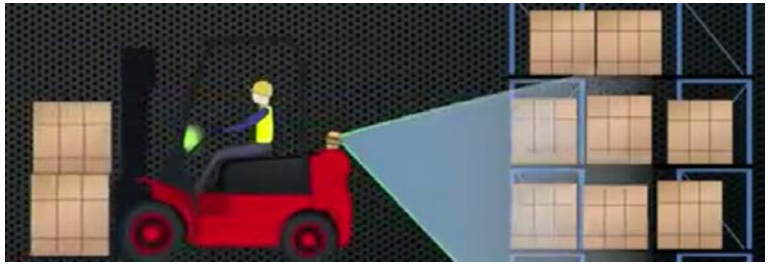


Lidar

Sonic & Sonar

Same technology as deployed in most Passenger Cars

Vision



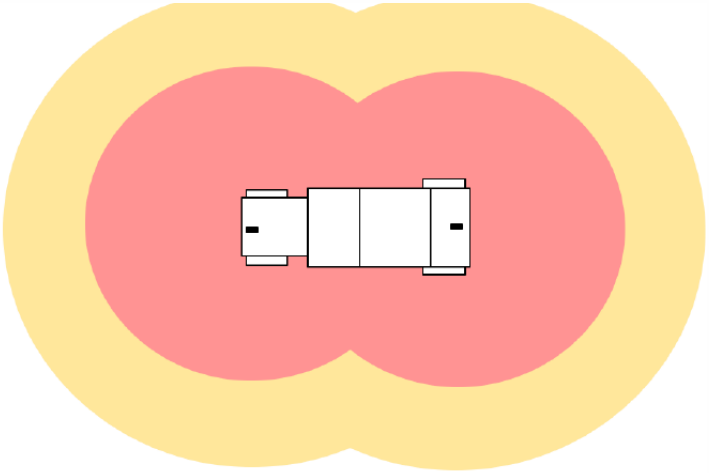
Ignore Racking

Detect Person

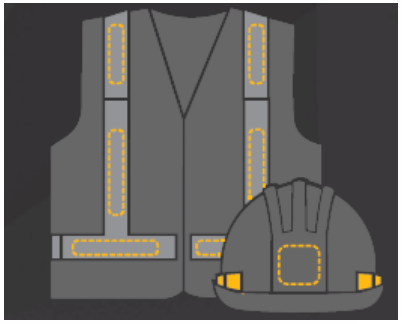
RFID

Single Sensor

Multi Sensor



Tags integrated into jackets, vests , overalls , hardhats etc



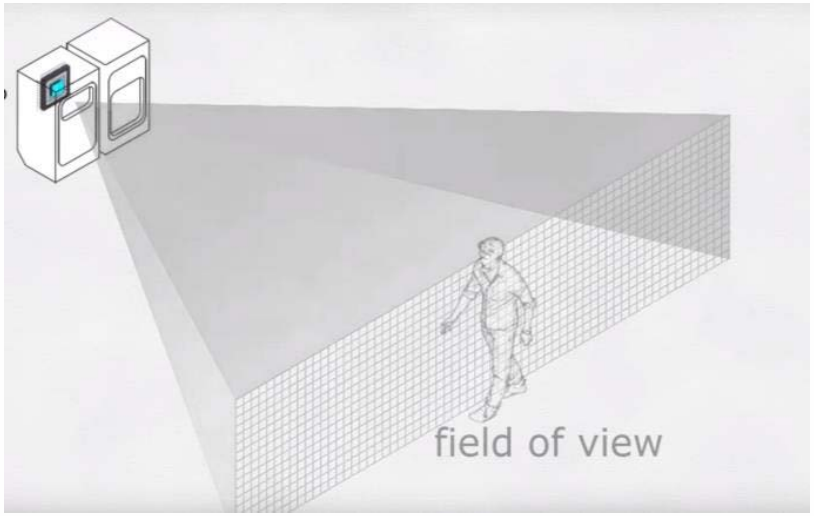
A detection, now what ?

- Alert operator
- Alert person in danger
- Influence machine behavior
- Report on performance

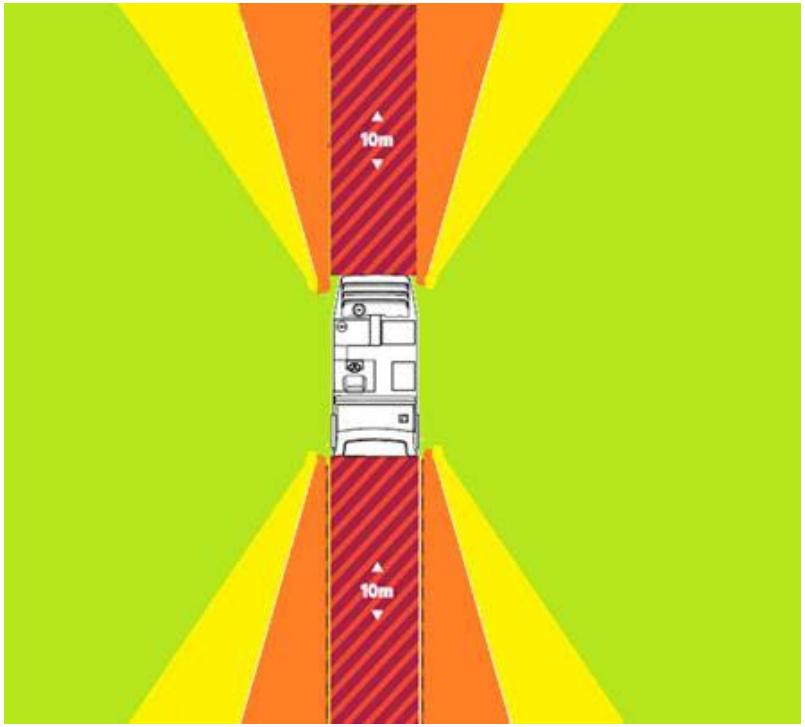
Today

- Hybrid system
- Algorithm driven
- Perpetually upgradeable

3D Mapping live

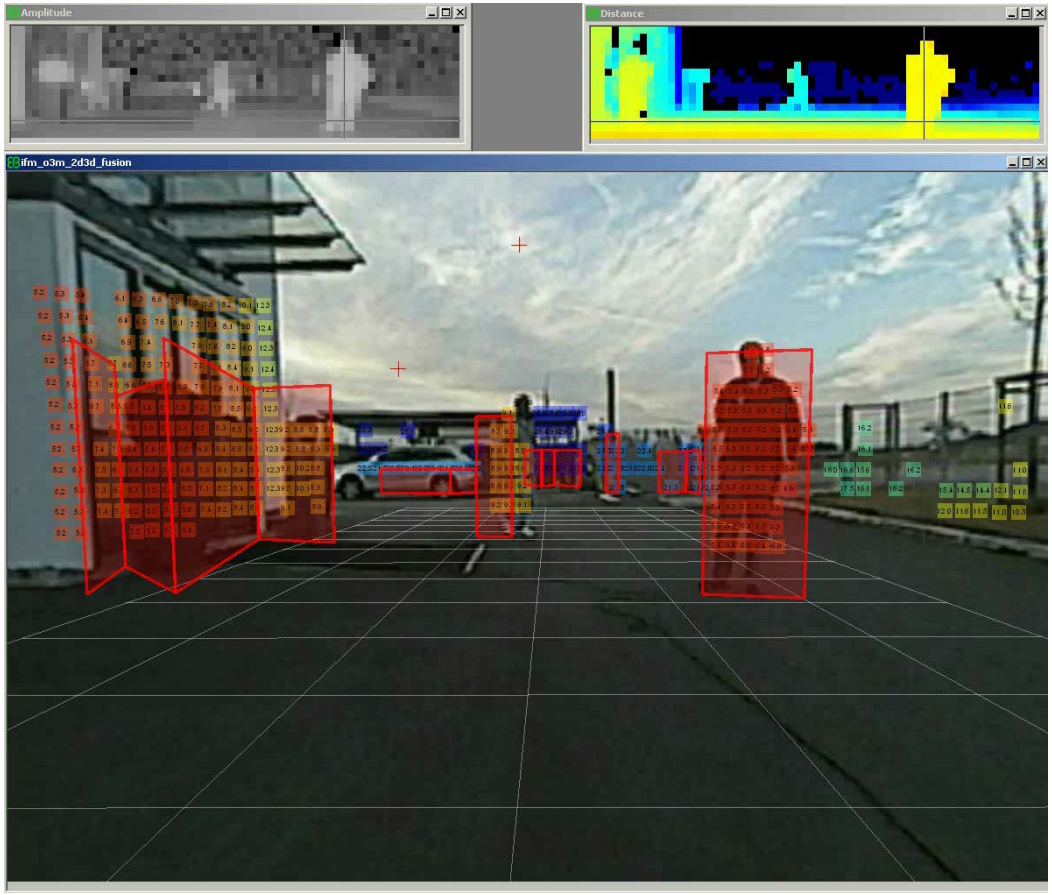


3d mapping occurring live at very high resolution

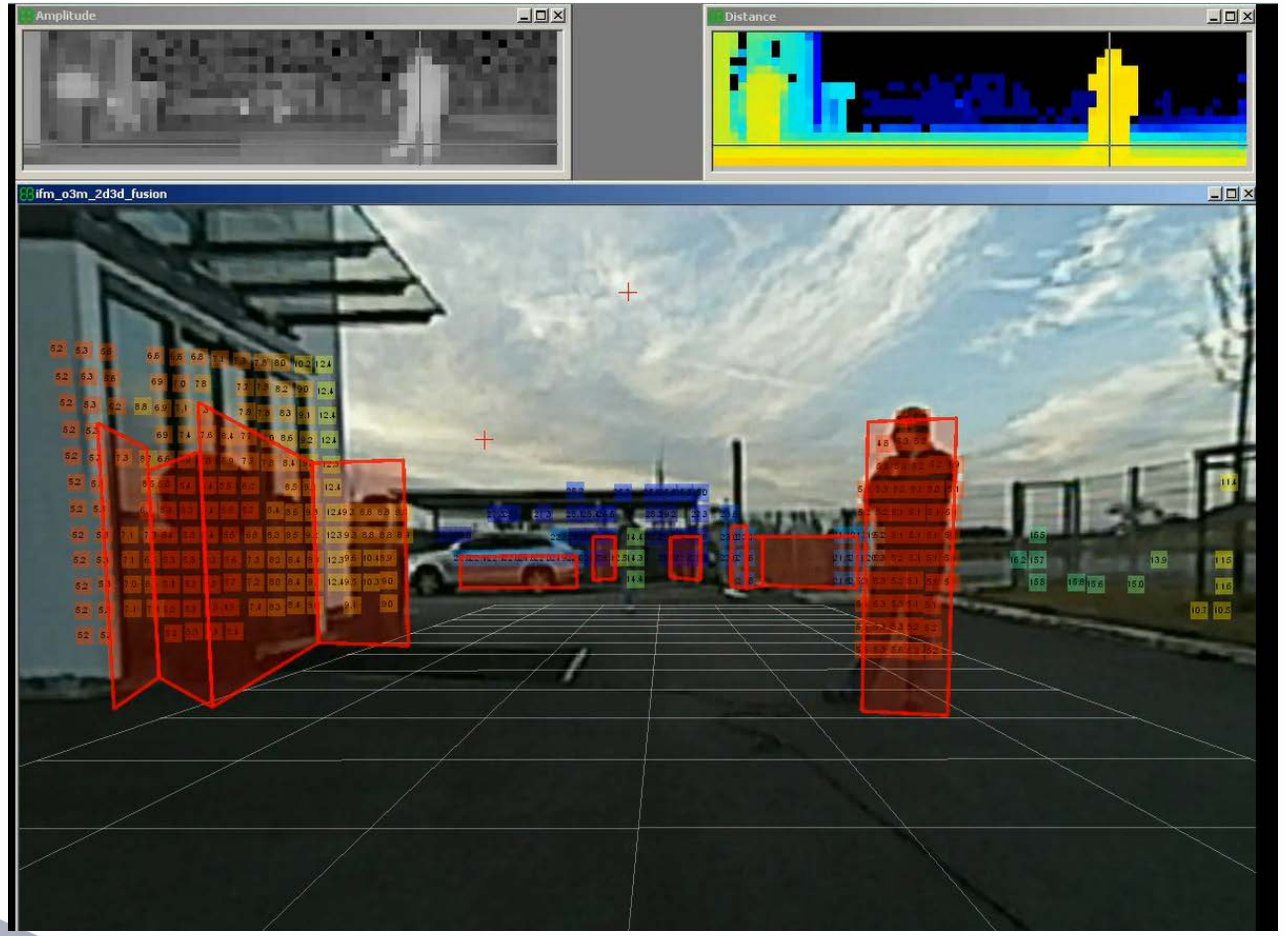


Create multiple detection zones with unrivaled accuracy

Demonstration



Demonstration - Still



Current Field Trial

2 * Units in field trial, Vision Infrared 3D mapping

Live feed analytics

Whats next ?

- Refinement of algorithm
- Reduce size of hardware
- Live feed from site through sensors
- Machine control trials

Questions

Thank you for your participation today

Please stay tuned for our next NRSPP webinar that is coming up:

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