



TOWARDS ZERO HARM ACTIVE RISK MANAGEMENT

Aptella Safety Solutions

Proven technology for the moments that matter most in mining

Mining's most dangerous moments happen where people and plant share the same ground. Training, spotters, cameras, radios, all rely on human attention that can lapse.

- > Collision Management System: full intervention control for production, in-pit heavy equipment
- > Pedestrian Detection System: AI vision for pedestrians and light vehicles across mine facilities
- > Fatigue and Distraction Detection: proactive management of inattentive operators before a safety incident

150+

Fatal workplace accidents in
Australia every year

65%

Of workplace fatalities are
vehicle related

7

Every 7 seconds, a worker is
injured on the job

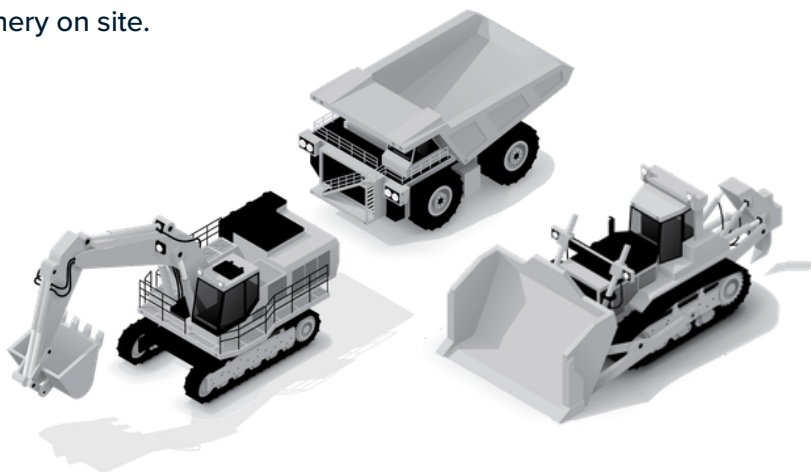


COLLISION MANAGEMENT SYSTEM (CMS)

Full intervention control for the heaviest machinery on site.

BUILT FOR:

- Shovels and excavators
- Dozers
- Haul trucks
- Draglines
- Auxiliary and light vehicles



HOW IT WORKS

- LIDAR 3D, RTK GPS, Time of Flight, AI camera and V2V radiofrequency, fused for centimetre level awareness
- Tag-free solution detects vehicles, people, berms, mining fronts and large rocks
- Predictive “detection tunnel” reads risk ahead of the vehicle, not just in the moment
- Built to eliminate false positives, so operators trust every alert
- Data feeds into TORSa Cloud for site wide visibility and KPI tracking

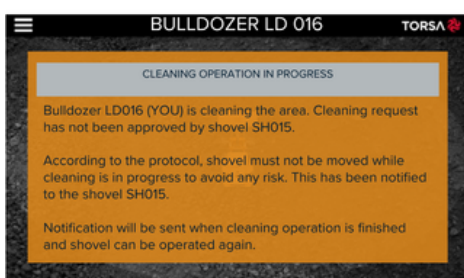
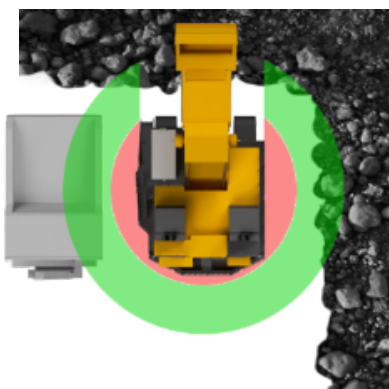
PRECISION DETECTION ZONE FOR SHOVELS

Three physical zones. One clear, visual read on areas of potential risk:

- Green zone: optimal zone for operation (loading or cleaning).
- Red zone: high collision risk.
- Grey zone: remote zone for operation (loading or cleaning).

Backed by a three tier alert escalation:

- Green zone: informative
- Orange zone: warning, medium risk
- Red zone: alarm, high risk





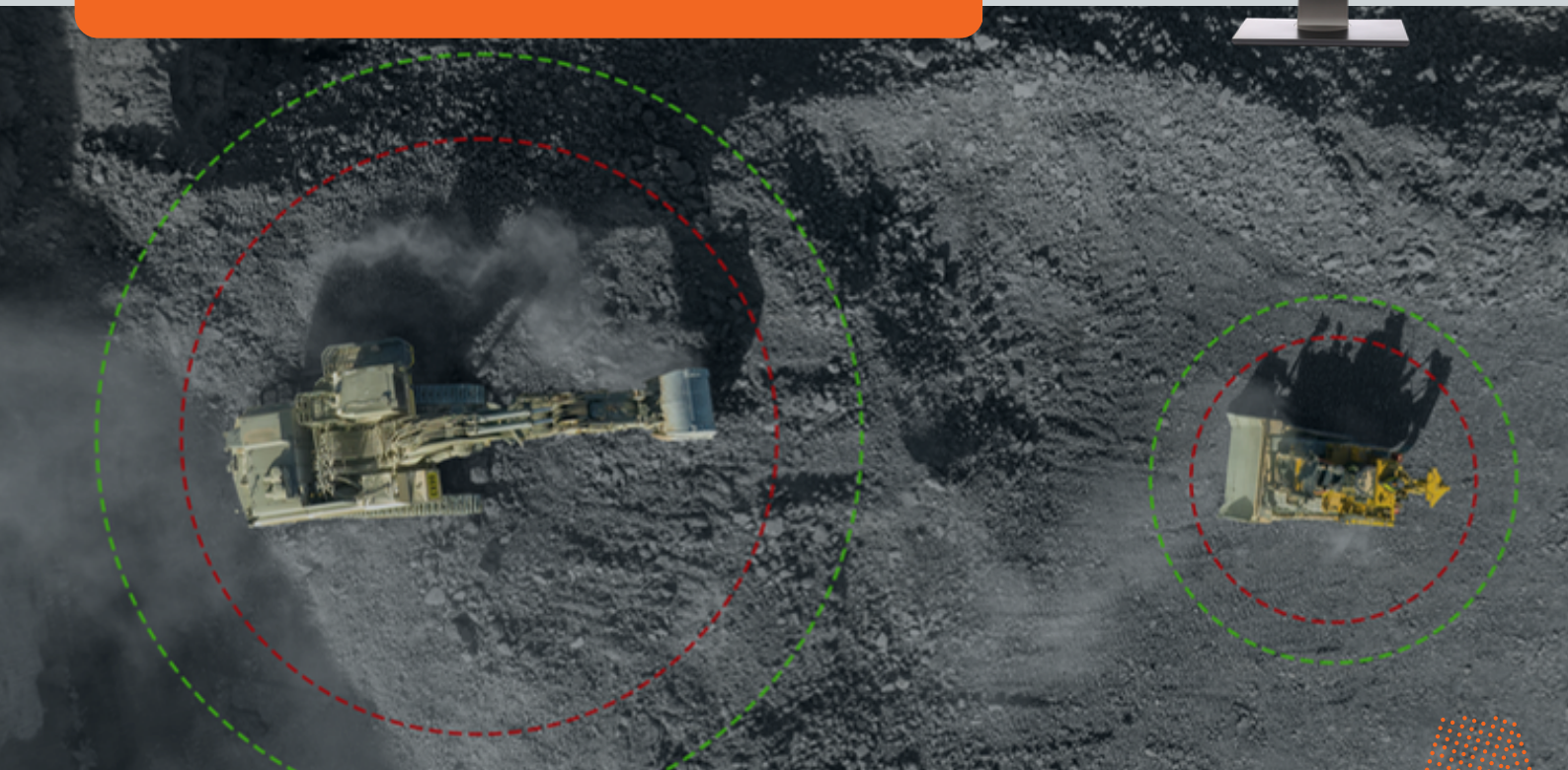
CERTIFIED TO EMESRT LEVEL 9

The highest tier in mining's vehicle interaction framework. Not just an alert, the system intervenes, braking or slowing the machine when the operator doesn't respond.

- Aligned with EMESRT
- Performs at Control Levels 7, 8 and 9
- Second company worldwide to pass University of Pretoria's independent TRL4 testing
- Complies with ISO21815

“Being able to harmonise such a rich set of data and not tire or frustrate the operator with false alarms is key. When procedures fail, technology should not.”

Denzil Khan, Aptella Product Manager





PEDESTRIAN DETECTION SYSTEM (PDS)

AI vision that protects people wherever plant and pedestrians share ground.

BUILT FOR:

- Forklifts
- Light vehicles
- Fixed infrastructure and facility zones
- Anywhere pedestrians, contractors or visitors move around mobile plant



HOW IT WORKS

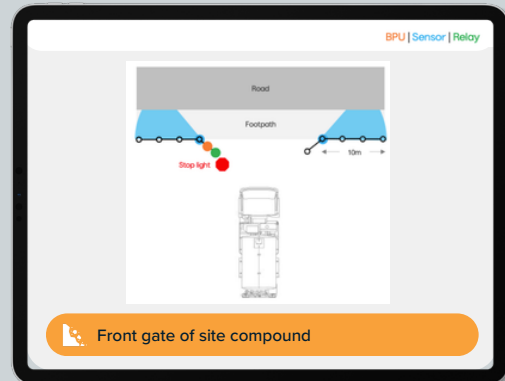
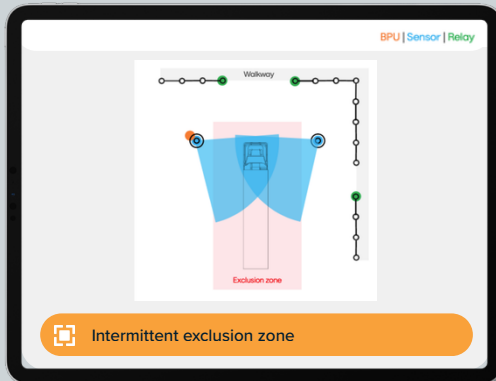
- Modern edge AI vision, no tags, wearables or network connection required
- Detects people, other plant, light vehicles and traffic cones
- Customisable exclusion zones, e.g. alert only when reversing
- Simple in-cab alerts: LED light, beep, vibration, no extra screen to watch
- Automated video and heat map reporting for training and near miss review
- Pre-trained AI, fast install, fleet up and running in minutes

PROVEN RESULTS

- Mort & Co: 65% fewer critical detections of people in hazardous zones within three months
- Winner, Best WHS Technology Deployment and Adoption, Australian Workplace Health & Safety Awards 2024
- Second company worldwide to pass University of Pretoria's independent TRL4 testing



Fixed use case addressing OHS team's egress concerns



“Blindsight empowers organisations to see what they couldn't see before. By leveraging AI and video technology, companies can finally identify risks in real time.”

Nick Corr, Aptella Market Development Manager, Safety





INSIGHTS AND INTERVENTION, FOR A SAFER SITE.

Compare the benefits between collision management and pedestrian detection solutions for your mine.

Collision Management System	Pedestrian Detection System
In the pit	Infrastructure & Services
Machine to machine, machine to person	Machine to pedestrian, plant and vehicles
Full EMESRT Level 9 intervention control	Real time alerts, no wearables required
Haul trucks, dozers, shovels, draglines	Forklifts, light vehicles, fixed infrastructure

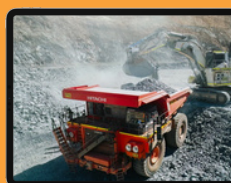
OPERATIONAL TECHNOLOGY SOLUTIONS BY APTELLA

Solutions with proven results on Australian mine sites, backed by a dedicated and experienced team



HP Machine Guidance

Give your operators the power to mine to the design and reduce downtime



Fleet Management Systems

Know the Who, What, Where and When of every machine across your site in real-time



Geospatial Solutions

Technology that facilitates fast, efficient and accurate data collection and set-out for a wide range of applications



Wireless Mesh Network for Mining

Industrial mesh network that autonomously adapts to operational and environmental changes in open-pit operations.



Safety Solutions

Providing companies with the successful Planning, deployment and operation of Collision Awareness Systems



Rehab Technology

Designing push strategies to lower the cost of Rehabilitation projects and improve effectiveness



WHY APTELLA

WE'RE THERE WHEN YOU NEED US

Aptella delivers intelligent positioning and automation solutions that help industries work safer, smarter, and more efficiently. With over 400 employees and more than 15 years of experience across Australia, New Zealand, and Southeast Asia, we partner with customers to solve complex challenges in dynamic environments. As a majority-owned subsidiary of Mitsui & Co., Aptella is backed by global expertise and a strong international network.

Our long-standing partnerships with global leaders like Carlson, TORSA, Blindsight, Rajant, and Quantum Systems ensure access to proven technologies tailored to real-world needs. We don't just supply systems—we make sure they perform. Aptella's services span the full lifecycle of your technology, from installation and training to remote support and preventive maintenance, helping operations stay productive, safe, and efficient.

MINING SOLUTIONS BACKED BY EXPERIENCE

Aptella's Mining Team brings specialised expertise to surface operations across Australia, New Zealand, and Southeast Asia. With solution-ready technologies including machine guidance, fleet management, collision avoidance, and monitoring systems, we help mining operations improve safety, productivity, and decision-making. Our team is embedded in key mining regions, providing responsive local support and change management to ensure every system delivers from day one.

Focused on long-term performance, we work side-by-side with mining teams to optimise technology across its full lifecycle. From initial deployment to ongoing service, our goal is to help customers maximise return on investment and operational efficiency. Backed by Aptella's broader capabilities and global partnerships, our mining specialists deliver innovation, reliability, and results tailored to the unique demands of the mining industry.





Aptella Service Level Agreements

Committed to Performance, Reliability, and Results



Remote Support

Our team can diagnose issues, monitor system performance, and guide on-site personnel through troubleshooting, remotely and in real time. Minimise disruption and keep your operations running smoothly.



Installation and Commissioning

From planning through to handover, we ensure every component is configured, tested, and performing to specification before it goes live on site.



Training

We provide hands-on training for operators, maintenance personnel, and management teams ensuring your people have the knowledge and confidence to get the most out of your technology investment.



Preventive Site Support

Identify potential issues before they impact operations. Our preventive maintenance approach keeps systems reliable, reducing downtime and maintaining peak fleet performance.



Operational Technology Auditing

Benchmark your systems against best practice and operational objectives. We identify gaps and opportunities, to ensure your technology delivers measurable value over time.



Data Customisation and Dashboard Configuration

Every site is different and so is the data that drives it. Aptella tailors reporting dashboards and analytics tools to your operational needs, to support clearer, better decision making.