



AI driven operational insights for safer and more compliant industrial sites

The Machine Eye Platform

A digital platform for autonomous and continuous monitoring of transport derived risk in industrial sites: Improving visibility, insight and accountability; controlling risk and saving lives.

Machine Eye is a platform for HSEQ, operations and maintenance teams to efficiently manage large fleets

We help businesses track and manage their mobile vehicle fleets; monitor safety and compliance throughout the working day; and quantify business performance; while protecting operations from unscheduled downtime and costly investigations.



Identify Trends and Developing Issues



24/7 Monitoring



High resolution performance data across fleets/ sites



Records and playback of incidents or near misses



Automated compliance tracking and record keeping



Cost savings and efficiency improvements

AI driven operational insights for safer and more compliant industrial sites

Using the Machine Eye ecosystem businesses can digitise the capture and analysis of risk and incident data, identifying potential safety breaches before they can escalate towards a harmful incident.

- Identify Hotspots
- Flag areas of concern
- Design data based, target interventions
- Monitor compliance across large areas
- Base investigations upon historical data



“This system become a real time risk assessment for us - it quickly tells us where we need to direct attention and resources”

Onboard



Cloud based analytics and monitoring

Full Surround Visibility

Constant Connectivity

Real-time Edge AI Processing

Multiple Alarm Interfaces



Recommendations for the adoption of safety tech in the UK - Commissioned by HSE



Written by Machine Eye, it reflects the output from our work with HSE, Colas, Skanska and HS2 to identify barriers to the adoption of perception technology across the construction sector, and recommends key enablers and actions for both regulators and industry to accelerate uptake of digital safety solutions.

We're proud to have worked on such a landmark report, and look forward to continuing to work with all the partners on next steps from this.



Developed in Northern Ireland



Machine Eye for Loading Shovel Operations - Re-gen



Machine Eye for Loading Shovel Operations - Re-gen



Machine Eye for Loading Shovel Operations - Re-gen



Machine Eye for Loading Shovel Operations - Re-gen



MDR Plant Video

Machine Eye for Loading Shovel Operations - Re-gen



Dashboard Video

Innovating to reduce risk in the Waste and Resource Management industry



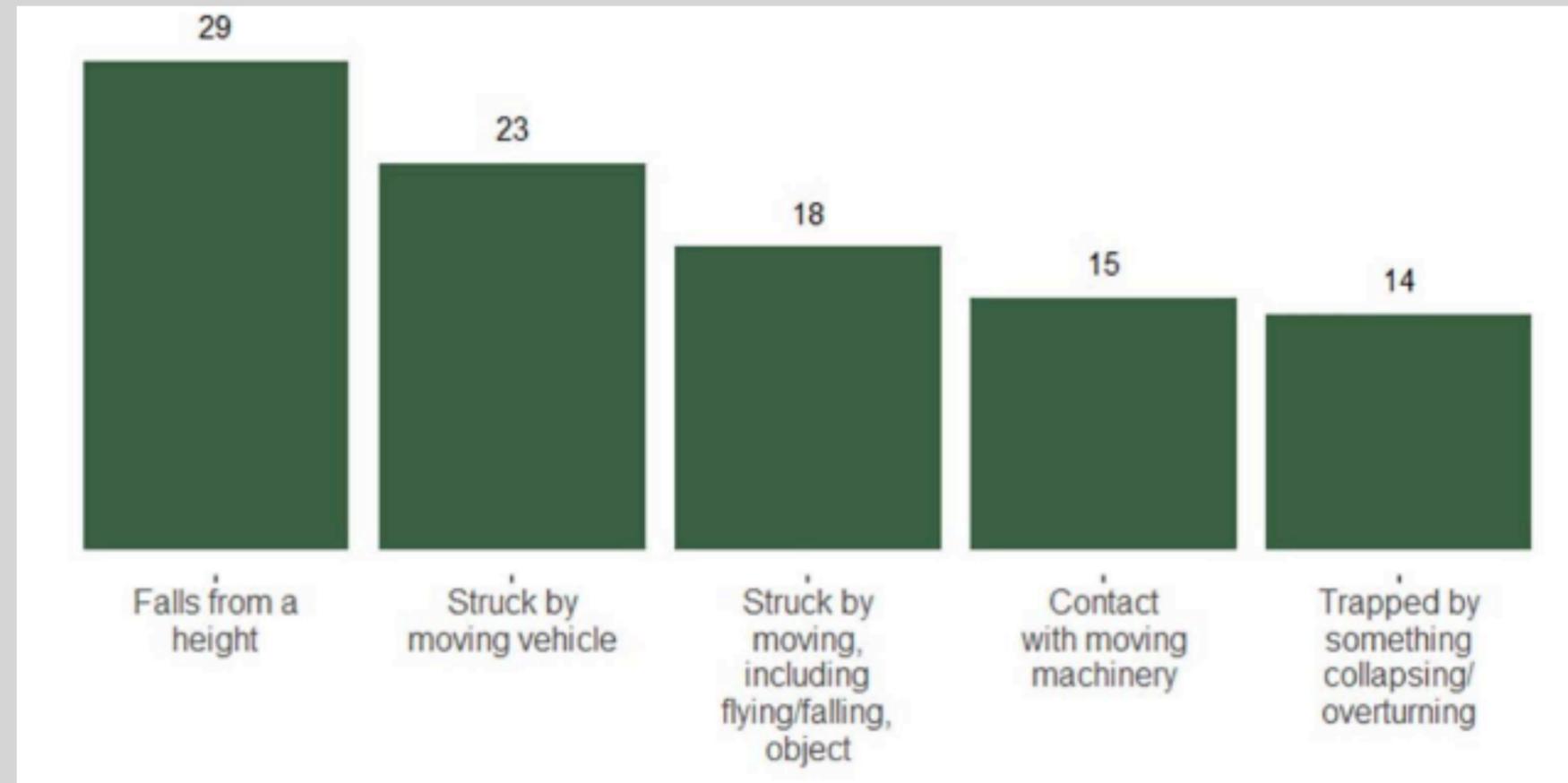


Why Machine Eye?

Main kinds of fatal accidents for workers (2021/22)

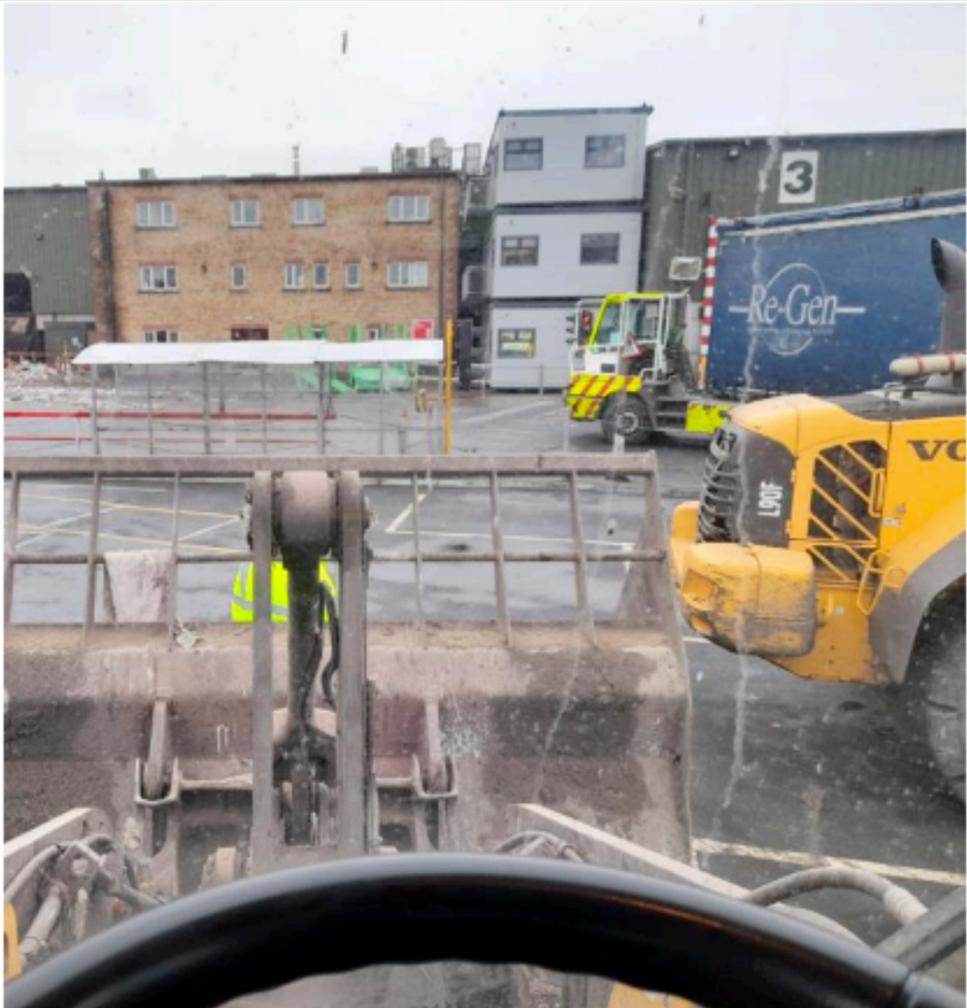
The most common kinds of fatal accidents to workers in 2021/22 continue as falls from a height, struck by moving vehicle, and struck by moving, including flying/falling, object. These accounts for over half of all fatal accidents to workers in 2021/22

By type of accident



Note: Chart above shows all accident kinds accounting for 10 or more deaths in 2021/22

All around visibility



Wheeled loading shovels in waste and recycling - HSE

Introduction

- There have been nine fatal vehicle-pedestrian collisions in the past four years involving wheeled loading shovels. Six of these were in the waste and recycling sector while the remainder involved wood chip.
- Some were due to poor forward visibility, while others resulted from reversing. Larger capacity buckets had been fitted to some machines, further reducing forward visibility.
- This safety notice is to remind dutyholders who use these machines of the need to fully assess and actively manage the risk of vehicle-pedestrian collisions.



Near Miss Video



Annotated Video

Measured expected benefits

- **Accurate** near miss numbers
- These type of near misses captured **automatically**
- **Increase in compliance** with PPE requirements
- **Risk Reduction** - measured by reduced significant near misses



Other benefits

- **Compliance** with site rules
- Compliance with **PPE** requirements
- Comfort knowing, we are **not missing** any **unreported** near miss involving machinery

Challenges in development

- **Getting buy in from operators** - changing perceptions from Big Brother to assisting them to reduce risk
- **Recycling Material in Bunkers** - biggest challenge to Computer Vision/ Machine Eye - technical adjustments to manage false positives
- I believe now that the system is functional on waste sites, it will be functional on any site



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