Case Study

A Proactive Approach to Protecting Vulnerable Road Users:
Implementation of Side Underrun Protection Systems

Eather Group

Key Safety Focus:
Side Underrun Protection Systems

Side Underrun Protection systems (SUPs) are a vital safety technology that can shield vulnerable road users (VRUs), including pedestrians, cyclists, and motorcyclists, from severe or fatal injuries resulting from collisions with trucks. SUPs can help prevent a person from falling under the truck's wheels by pushing them away in the event of a crash, significantly improving crash survival rates[1]. These systems are readily available across Australia and can be retrofitted into new and existing fleet vehicles.

The Eather Group is engaged in several significant construction projects that require drivers to navigate densely populated areas such as the Sydney CBD. Acknowledging the substantial risks associated with truck and VRU interactions, the Eather Group proactively prioritised VRU safety by retrofitting SUPs on three fleet vehicles. This case study will explore the Eather Group's experience integrating SUPs into their fleet, emphasising SUPs as an effective and cost-effective solution for prioritising VRU safety in construction projects.

Implementation

To enhance VRU safety in highly populated areas like the Sydney CBD, the Eather Group made the decision to equip three of their vehicles with SUPs. Of these vehicles, two were newly acquired and had SUPs installed at an estimated cost of approximately $5,500, while the third vehicle required retrofitting, incurring a cost of approximately $2,000 and 10 hours off the road for installation. The SUP's were attached to both the front vehicle and the trailer it was pulling. SUP's for trailers are available on the Australian market. The additional cost for installation of SUP's per trailer was approximately $2,000.

Despite the associated costs, the Eather Group recognised that the safety benefits of SUPs far outweigh the financial investment. By implementing SUPs, the company has proactively prioritised VRU safety, mitigating the potential financial and legal costs of incidents, while also protecting their employees' wellbeing.

> **"If you were to spread [the cost of implementing SUPs] over a three- or four-year project, it'd only be a few cents per tonne... for all the extra safety"**
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> **– Divinia Eather, Eather Group**

Construction Truck Community Safety

Key Challenges

The implementation of SUPs by the Eather Group was a seamless process, with no significant issues encountered. According to the company, the SUPs had no impact on the driving of the vehicle, and as long as drivers maintained safe and responsible driving practices they required no additional driver training. The Eather Group highlighted that any issues encountered with the SUPs could likely be attributed to driver behaviour that did not align with established safe driver policies and procedures.

Achievements and Community Impacts

By implementing SUPs into their fleet, the Eather Group expects numerous benefits for the community, their organisation, and the wider industry.

These benefits include:

- Community safety: SUPs provide an extra layer of protection for VRU, especially cyclists, who share the road with trucks and reduce the likelihood of serious or fatal injuries in the event of a collision.
- Reputation: Vehicles equipped with SUPs visually demonstrate that the organisation is taking proactive measures to prevent injuries and fatalities, reinforcing their commitment to safety to the public.
- Driver wellbeing: Being involved in an incident resulting in serious or fatal injuries can be a traumatic experience for drivers and can have significant mental health impacts. By investing in preventative safety technologies such as SUPs, drivers feel better equipped when operating in metropolitan areas.
- Industry: The Eather Group's implementation of SUPs pushes the industry towards a higher safety standard by demonstrating the business case for investing in preventative safety technology.

Summary

The Eather Group retrofitted three of their fleet vehicles with SUPs to improve VRU safety in densely populated areas like Sydney CBD. The SUPs were seamlessly integrated into the vehicles and required no additional driver training. The Eather Group reported that the safety benefits far outweighed the cost of retrofitting SUPs. By implementing SUPs, the Eather Group demonstrated their commitment to the safety and wellbeing of VRUs and their drivers. The case study highlights SUPs as a simple and cost-effective but powerful solution for prioritising VRU safety in the construction industry.

About the Organisation

The Eather Group is a specialist business addressing the need for environmentally, socially, and economically sustainable solutions for NSW's major construction projects. Services include waste-to-resource solutions, transport solutions, bulk material supply and handling solutions, and plant hire solutions.