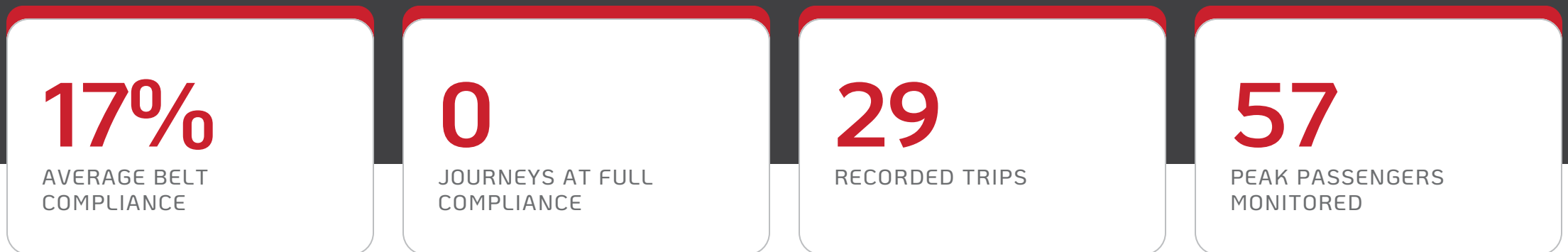




Seatbelt Warning System: NSW School Bus Trial

A real-world evaluation of seat-by-seat compliance monitoring · February 2024 – April 2025

Following a series of high-profile bus incidents in Australia, CDC NSW partnered with **Transport for NSW** and **MAX SAFE** to measure real-world seatbelt compliance among a broad range of passengers — and to test whether a hard-wired monitoring system could capture accurate, seat-by-seat compliance data in a live school transport environment.



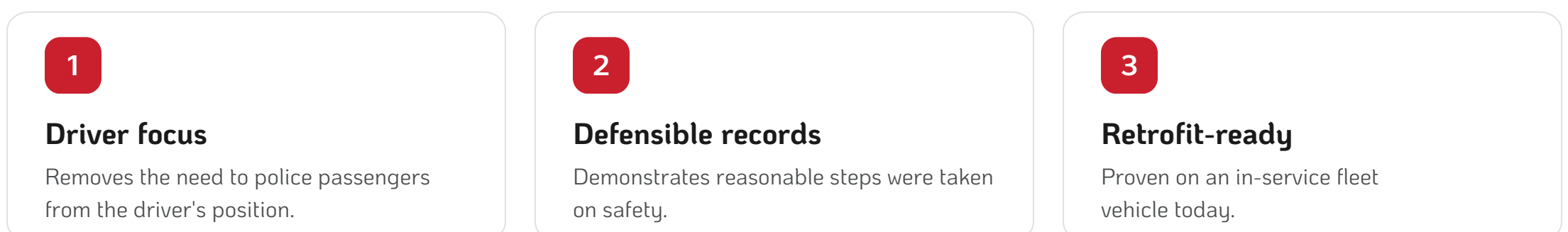
WHAT THE DATA SHOWED

- **No journey** achieved full seatbelt compliance across the trial period.
- Non-compliance **rose as the bus filled up** — the busier the service, the more unsecured belts.
- **Middle and rear seating zones** had the highest rates of unsecured belts.
- Increasing chance of **driver distraction** and passenger risk.
- Signage and audible prompts alone were **not enough** to lift compliance.

SYSTEM PERFORMANCE

- When installed and left undisturbed, the system **performed reliably** — accurately detecting buckle status and seat location.
- It produced **time-stamped, auditable** journey records on a seat-by-seat basis.
- Faults during the trial traced to **third-party wiring interference**, not system design — and resolved without design changes.

WHAT IT MEANS FOR OPERATORS



TRIAL AT A GLANCE

Lead agency	CDC NSW
In collaboration with	Transport for NSW
Technology partner	MAX SAFE
Vehicle	Volvo B8R / Volgren
Configuration	80 seats
Location	Ballina Depot, NSW
Period	Feb 2024 – Apr 2025

THE TAKEAWAY

Where seatbelts are fitted, the law requires them to be worn — yet without active monitoring, compliance stayed low even with decals and audible prompts in place. The evidence supports monitoring as a **systematic** safety measure, not an optional one.

Note on interpretation: The 17% figure reflects baseline passenger behaviour, captured with signage and audible prompts present but without sustained enforcement. The system's full alerting configuration was not continuously active throughout the trial due to operational factors (buckle ergonomics for younger children, third-party interference, and data-recovery logistics) external to the core system design.