



SafestepTM

Assurance Everywhere





SafeStep™ by Ardent

In 2025, Ardent won the Transport for London innovation challenge. Successfully creating a solution to trips and falls happening every year

In 2024 there were...

- 712 reported trips and falls on stairs
- 369 minor injuries
- 18 serious injuries and 1 fatality



Innovation Process

A functional prototype was deployed featuring two key safety measures:



Upper Saloon Alerts

Encourages passengers to remain seated until the bus stops.



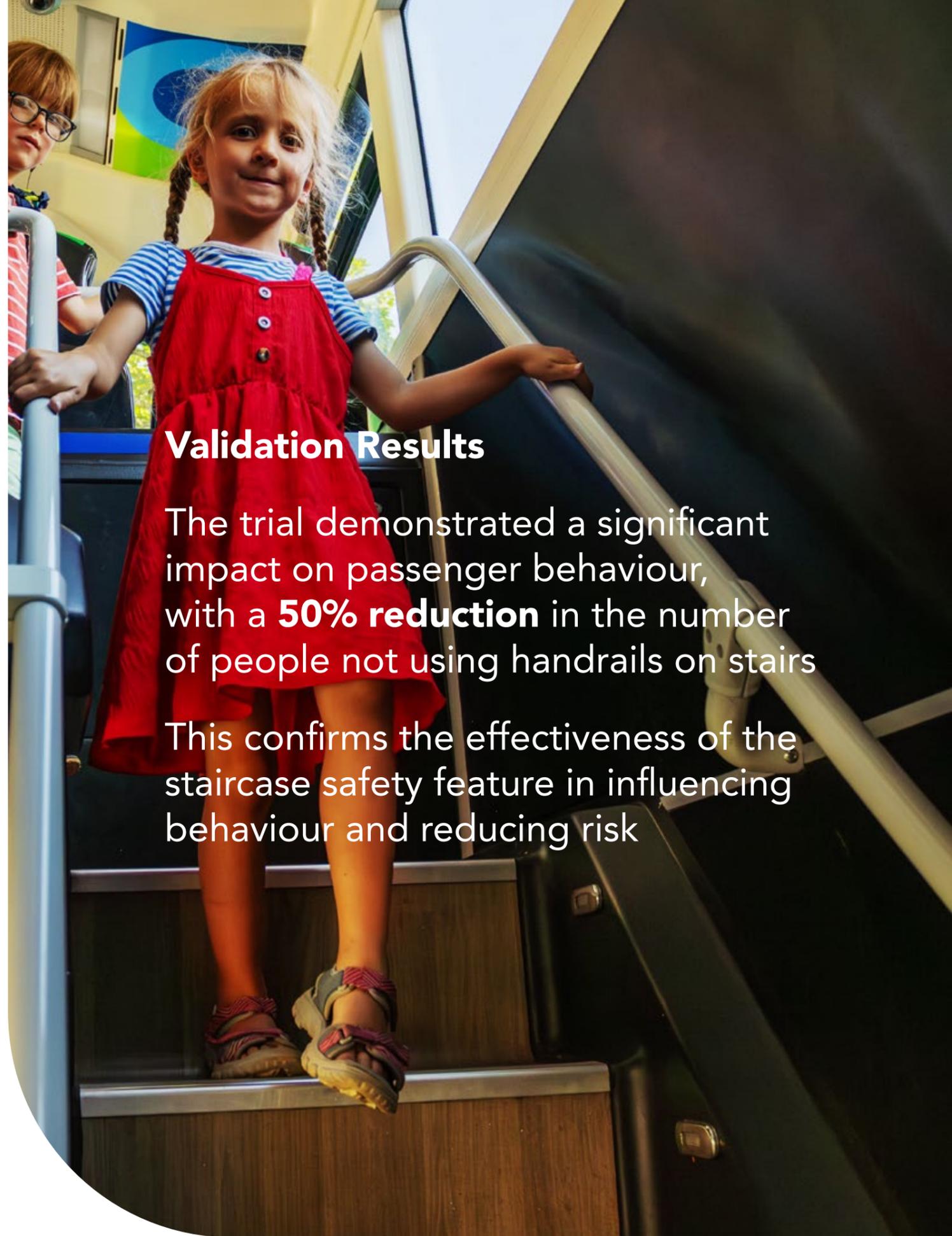
Staircase Safety Alerts

Detects passenger movement on stairs and plays an audible reminder to use handrails.

Validation Results

The trial demonstrated a significant impact on passenger behaviour, with a **50% reduction** in the number of people not using handrails on stairs

This confirms the effectiveness of the staircase safety feature in influencing behaviour and reducing risk



SafeStep™ by Ardent

SafeStep by Ardent is a customisable passenger safety system that produces clear, sensor-triggered alerts to reduce onboard accidents and improve the travel experience. With features like boarding announcements, seat availability updates, and integrated safety systems, it improves both passenger safety and operator efficiency.

Key Benefits

Clear Alerts:

Messages like “Please hold on to the handrails” are triggered by sensors, improving onboard safety.

Accident Reduction:

Reduces passenger incidents and lowers insurance claims for transport providers.

Customisable System:

Adapts to both operator and passenger needs with tailored messages, triggers, and rules for optimal performance.

Additional Features:

Includes boarding alerts, saloon seat availability, and wheelchair area notifications.

Proposed Hardware

Safe Assist Module (SAM) or Multi Message System (MMS)

Occupancy sensors and speakers

Full integration with other safety systems like Acoustic Vehicle Alert System (AVAS) and fire suppression



Transforming passenger safety with dynamic, automated messages that anticipate and address risks in real-time

- ✓ We have developed a solution that will pro-actively message passengers of risks in real-time.
- ✓ We are working with operators and transport authorities, Ardent has finished a series of trials on highly-utilised bus routes in London – initial results show positive behavioural changes of passengers.
- ✓ We are transforming passenger safety with dynamic, automated messages that anticipates and addresses risks in real-time.

SafeStep™ is designed and manufactured in the UK.

Assurance Everywhere

To find out more or to explore how we can help you enhance the safety of your vehicles, contact our sales team on +44 (0) 1423 326 740



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