

Sikkerhet i buss

Jon Stenslet - Ruter As

Leder materiell og anlegg

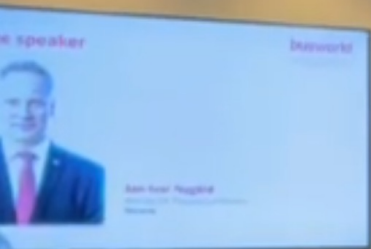
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27.10.2025

Ruter#

Sikkerhet på agendaen – Busworld 2025





EUROPEAN
TRANSPORT
WORKERS'
FEDERATION

Protecting Drivers: ETF Manifesto for safer buses



September 24, 2025

<https://www.etf-europe.org/resource/etf-bus-safety-manifesto/>

A NEW DEAL FOR SAFE BUSES



Every bus driver deserves the right to a safe working environment - including protection from fatal or serious injury in preventable road collisions. Yet, evidence shows that current bus designs across Europe fail to meet even basic safety standards expected in other road vehicles. We demand an end to this double standard.

The Problem

- No mandatory crashworthiness standard exists specifically for buses.
- The United Nations (UN) R29.03 standard is designed for trucks and fails to reflect the unique geometry and operational use of buses.
- There were approximately 950 known cases across Europe in the past decade, bus drivers were killed or seriously injured in frontal collisions.
- Collisions even at low speeds (~30 km/h) have proven fatal for drivers due to inadequate structural protection.
- Front-end design flaws (e.g. low driver seat position, no crumple zones, lack of protective features like airbags or collapsible columns) place drivers in a position of extreme risk.

In the last ten years, 1459 bus drivers in Europe have been killed or severely injured in accidents. Around 2/3 of the bus accidents in Europe have been with frontal impact. Approximately 963 bus drivers have been killed or severely injured in accidents where improved collision protection systems might have significantly reduced the severity of the outcomes (TOI report, 2025).

The report "Crashworthiness of buses - Analysis of European data and suggestions for improvements" (2025) has presented a study showing that current structural designs of bus fronts provide inadequate collision protection for drivers, that the crashworthiness requirements in UN Regulation R29.03 are insufficient, and that there is a need for improved front-end design in buses.

Our Demands

1. Improve UN Mandatory Bus Crashworthiness Standards

Develop and enforce UN regulations for bus driver frontal impact protection.

Build upon and expand UN R29.03 with bus-specific adaptations that reflect the realities of bus operations, including small-overlap crash scenarios and low-speed, high-impact design tests.

2. Ensure Equal Safety Across Sectors

Bus drivers must be afforded the same level of structural and passive safety as car and truck drivers — no exceptions.

All new buses should include airbag-seatbelt integration, collapsible steering columns, and safety seat design as standard.

3. Adopt the Vision Zero & Safe System Principles in the Transport sector

Transport safety policies must prioritize injury elimination over cost-efficiency.

Mandate designs that absorb kinetic energy and protect all users, including drivers, passengers, and vulnerable road users.



There is no mandatory EU crashworthiness standard focusing on bus drivers. However, Norway has successfully implemented the R29.03 frontal crash test standard for buses as of 1 October 2023 (originally designed for trucks).

Call to Action

We, the undersigned trade unions and worker representatives, demand that:

- National governments support Norway at the United Nations Economic Commission for Europe (UNECE) to put this issue formally on the agenda and begin the process to improve driver frontal protection.
- Propose new or revised UNECE regulations on bus crash safety by the end of 2026.
- Manufacturers work with trade unions, social partners and regulators to urgently look at appropriate safety models to improve collision protection across all new buses.

Rapport TØI + simuleringsprosjekt

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Keynote speakers



Tor Olav Naevestad
*Researcher
Transport-economic Institute of
Norway*



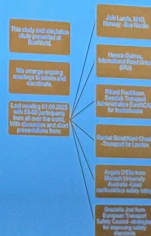
Manuel Laso
*Project Manager Commercial
Vehicles
IDIADA*

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CONGRESS

Rapport TØI + simuleringsprosjekt

Dissemination and coordination

Dissemination and coordination



This study and simulation was presented at BusWorld.

We arrange ongoing meetings to inform and coordinate.

Last meeting 01.09.2025 with 50-60 participants from all over the world. With discussion and short presentations from:

Jofri Lunde, NHO, Norway - Bus Nordic

Hamza Guirrou, International Road Union (IRU)

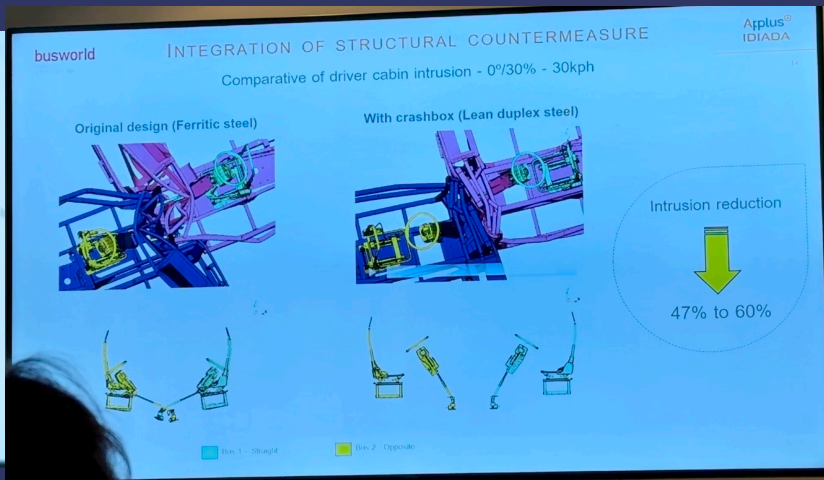
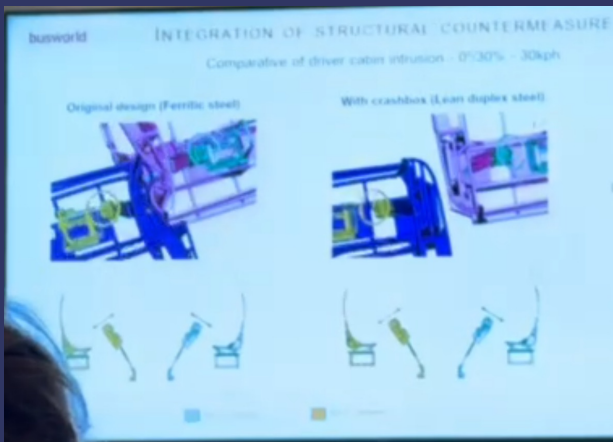
Rikard Fredrikson, Swedish Transport Administration EuroNCAP for trucks/buses

Rachel Birrell/Kerri Cheek - Transport for London

Angelo D'Elia from Monash University Australia - Used car/truck/bus safety rating

Graziella Jost from European Transport Safety Council - strategies for improving safety standards

Simulering av karosseri-forsterkning: Eksempel fra Busworld 2025



Eksempel (Transport for London): PTA sikkerhets-program inkl. kjøretøy-krav

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Safe vehicles

All buses using London's roads must have safety at the forefront of their design

Bus Safety Standard – what we are doing

The Bus Safety Standard, developed with the Transport Research Laboratory and launched in October 2018, contractually requires the use of safer vehicles, and supports safer behaviours and speeds, specifying safety requirements that new buses entering service in London must meet. These safety requirements for new buses were first specified in 2019, with subsequent requirements in 2021, the next set of measures are due to be introduced in 2024. The safety requirements extend over four different areas: driver assist, partner assist, occupant protection and partner protection.

- Driver assist: covers features intended to help the driver to avoid or mitigate the severity of a collision (also known as Advanced Driver Assistance Systems)
- Partner assist: helps other road users to avoid a collision
- Occupant protection: aims to minimise injury to bus drivers and passengers if a collision occurs
- Partner protection: aims to minimise injury to other road users if they become involved in a collision with a bus

The 2019 safety measures include: Intelligent Speed Assistance, which limits buses to the posted speed limit; an Acoustic Vehicle Alerting System for quiet-running vehicles to ensure the bus is audible to road users outside the bus; non-slip flooring to reduce passenger slips, trips and falls; pedal indicator lights to reduce incidences of pedal application error; and blind spot mirrors to increase visibility of vulnerable road users.

The 2021 safety measures include: Camera Monitoring Systems that replace wing mirrors in order to reduce blind spots; additional occupant-friendly interior measures; and a mechanism to prevent the bus from moving when the driver leaves the cab, substantially reducing the risk of rare but potentially dangerous bus rollover incidents.

The Bus Safety Standard is evolving as new technology and insights are developed, with the next set of measures to be introduced in 2024, including Advanced Emergency Braking and a new bus front-end design to reduce the impact in the event of collisions.

Bus Safety Standard measures

Driver assist

Helping the driver to avoid or mitigate the severity of incidents:

- Advanced Emergency Braking
- Intelligent Speed Assistance
- Improved direct and indirect vision
- Pedal application error
- Runaway bus prevention

Partner assist

Helping other involved road users – the collision partners – to avoid the collision:

- Acoustic conspicuity
- Visual conspicuity

Occupant protection

Reducing severity of injuries for people on board the bus

- Occupant-friendly interiors
- Slip protection

Partner protection

Reducing severity of injuries for road users outside the bus in a collision:

- Vulnerable road user frontal crashworthiness



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YUTONG

Think Eco, Move Green



Veien videre: flere muligheter (1/3)

10



KOLLEKTIVTRAFIKK-
FORENINGEN

 farte.no

skyss 



Innlandstrafikk

Ruter#

FRAM

Møre og Romsdal fylkeskommune



Agder kollektivtrafikk

 Svipper



Brakar



Nordland
FYLKESKOMMUNE



reis
nordland



ØSTFOLD
KOLLEKTIVTRAFIKK

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Veien videre: flere muligheter (2/3)

BUS NORDIC

FELLES NORDISKE KRAV VED ANSKAFFELSE AV BUSSE

2023

Versjon 2.0 – desember 2023 - Godkjent av Bus Nordics styringsgruppe for bedre offentlig transport

BUS NORDIC ER UTARBEIDET I SAMARBEID MELLOM NASJONALE BRANSJEORGANISASJONER FOR OFFENTLIG
TRANSPORT I DE NORDISKE LANDENE OG OPPDRAGSGIVERE I DE NORDISKE HOVEDSTADENE



Prøver å få
startet
prosjekt hos
UN ECE
(december
meeting)

Dissemination and coordination

