Euro NCAP Vision 2030

Euro NCAP färdplan 2025-2030, GNS 8 dec 2022

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FOR SAFER CARS EURO NCAP

TRAFIKVERKET
SWEDISH TRANSPORT ADMINISTRATION

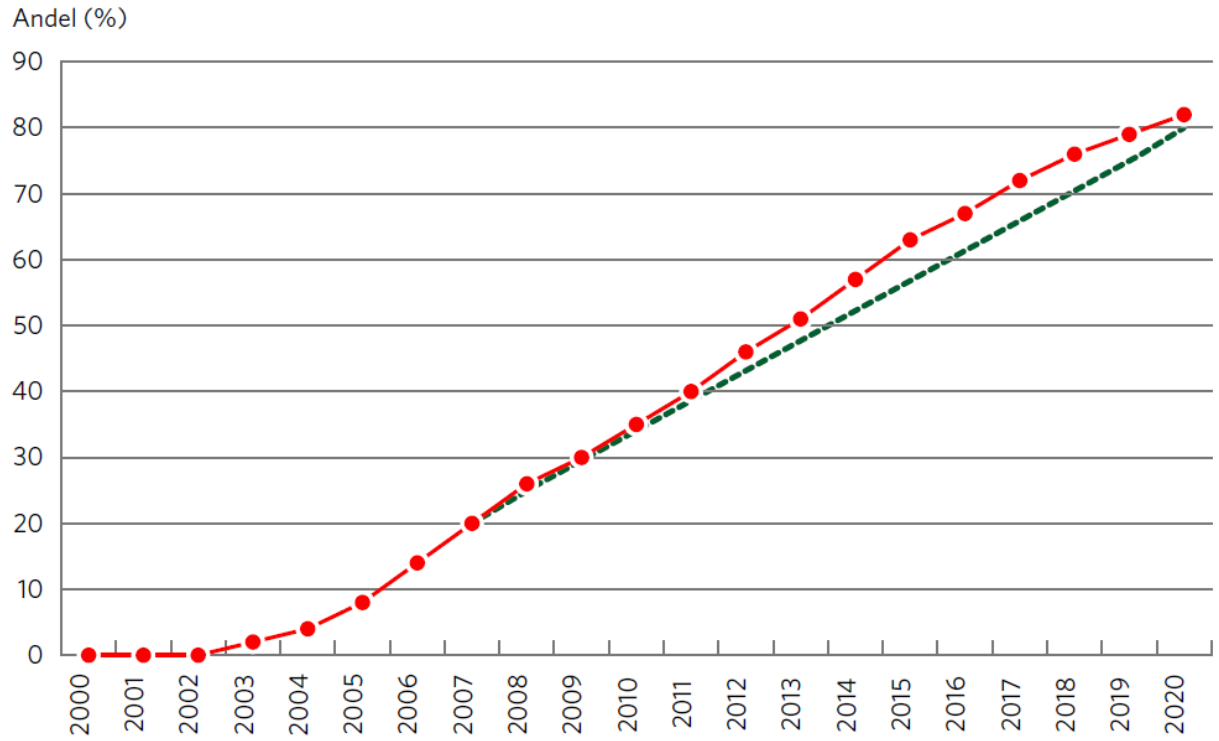
Euro NCAP konsumentprov

- Grundat 1997 av
  - TRL (UK)
  - FIA (internationell bilsportorganisation)
  - Trafikverket (then Vägverket)
  - International Consumer Research & Testing

Indikator “Säkra personbilar”

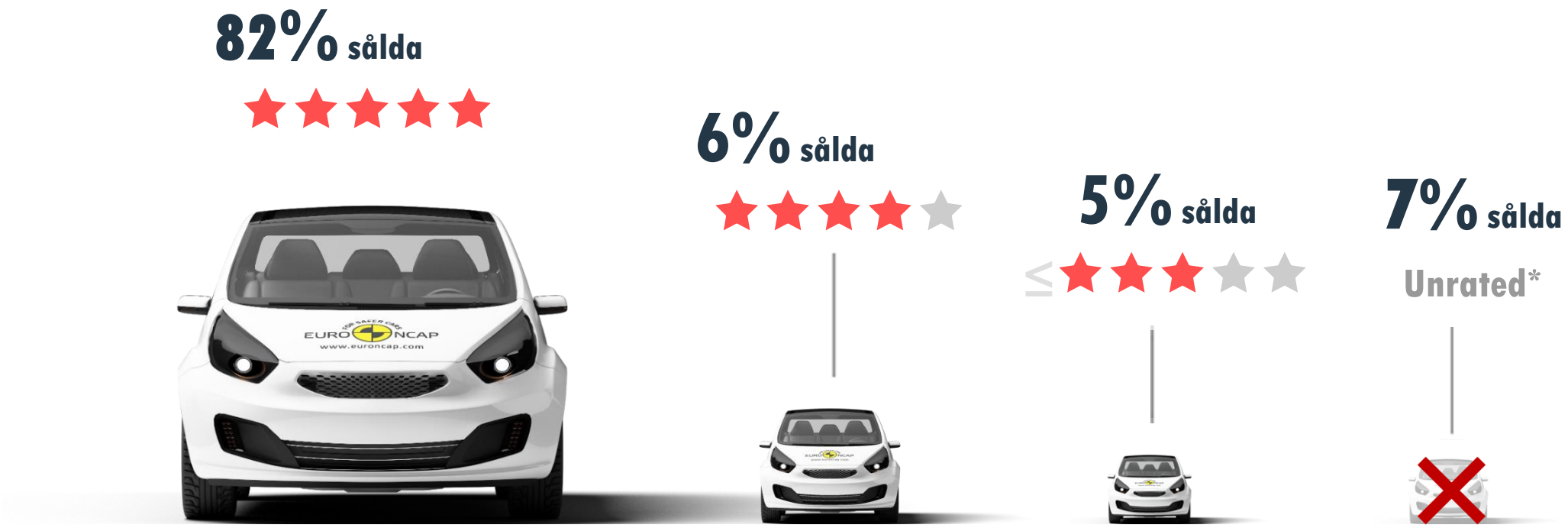
Figur 22.
Andel trafikarbete med högsta krocksäkerhetsklass för vuxna förare och passagerare i Euro NCAP 2000–2020, samt nödvändig utveckling till 2020.

Källa: BIL Sweden, Trafikanalys, Trafikverket.



TRAFIKVERKET

Euro NCAP
personbilar sålda i Sverige 2019



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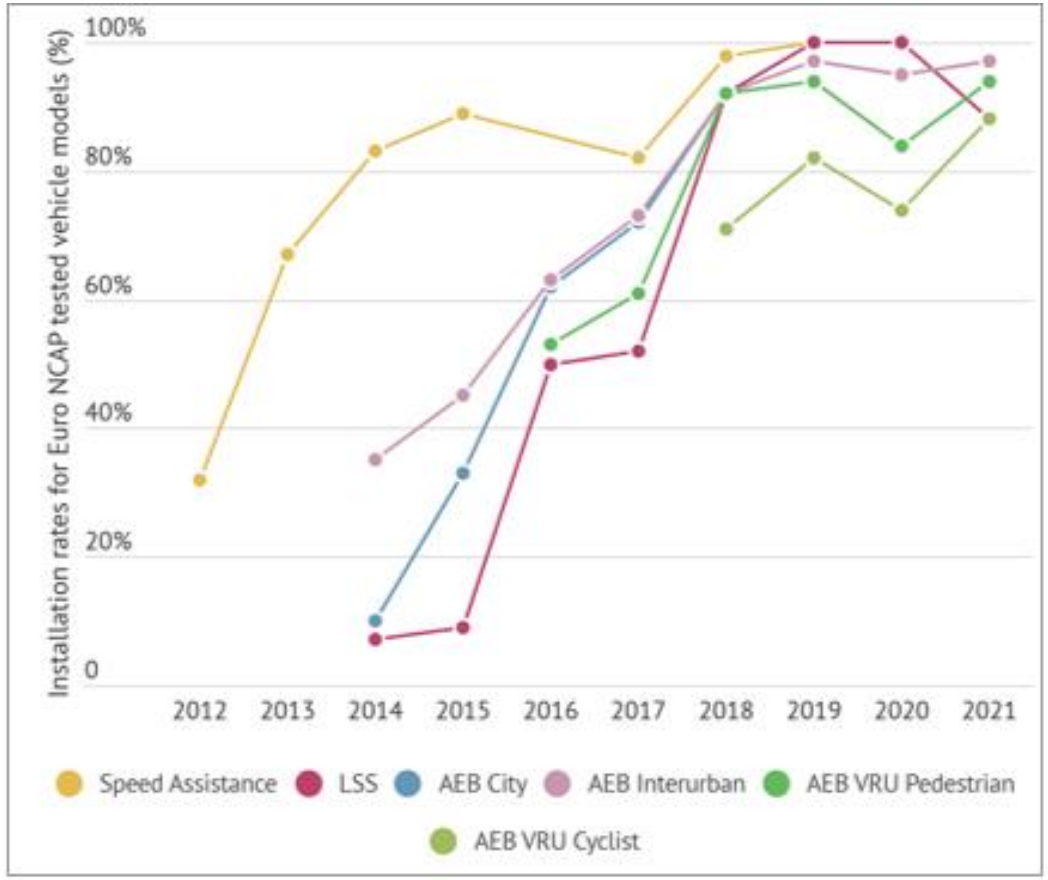
TRAFIKVERKET

Installationsgrad



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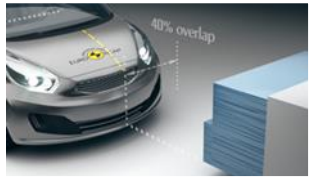
TRAFIKVERKET

Adult occupant







Child occupant



Vulnerable Road User





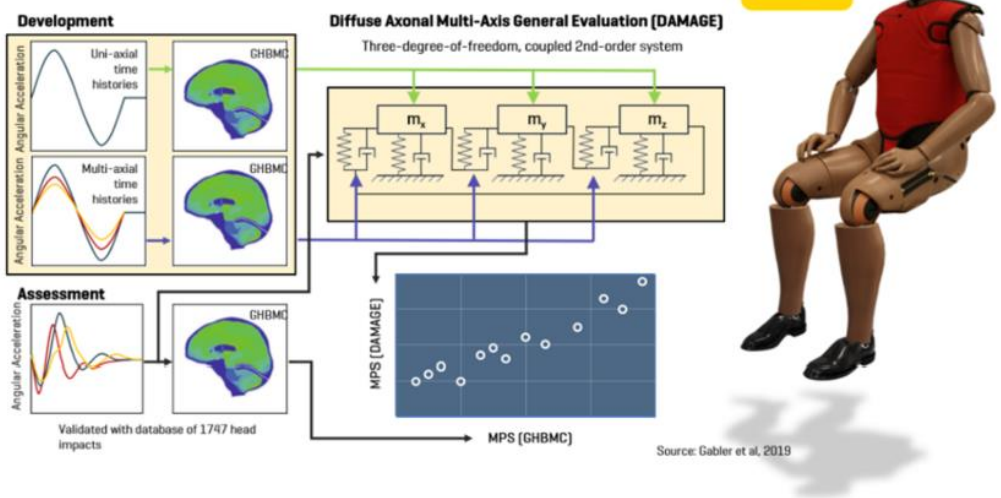
Safety assist



TRAFIKVERKET

2023 Rating Update

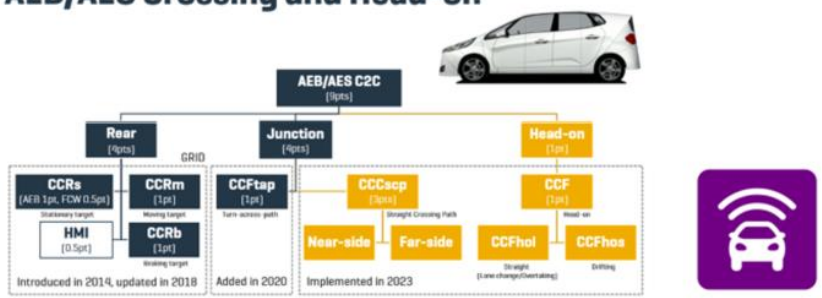
Brain Injury Assessment



Child Presence Detection

Initial Warning	Escalation Warning	Intervention
	(direct sensing systems only)	(direct sensing systems only)
• Targets the driver • Directly after locking <10s • Visual and audible warning for ≥3s • Temporary delay or cancellation	• After initial warning, warn driver and others • Repeats every 60s for 20 min period • Vehicle and/or mobile phone warning	• Supersedes or replaces escalation warning, 10 min from locking • Open to possibilities - must actively reduce the threat of hyperthermia

AEB/AES Crossing and Head-on



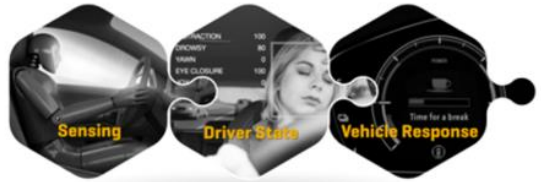
VRU Protection

AEB/AES for PTWs

Cyclist Dooring

aPLI Leg Impactor

Driver State Monitoring



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TRAFIKVERKET

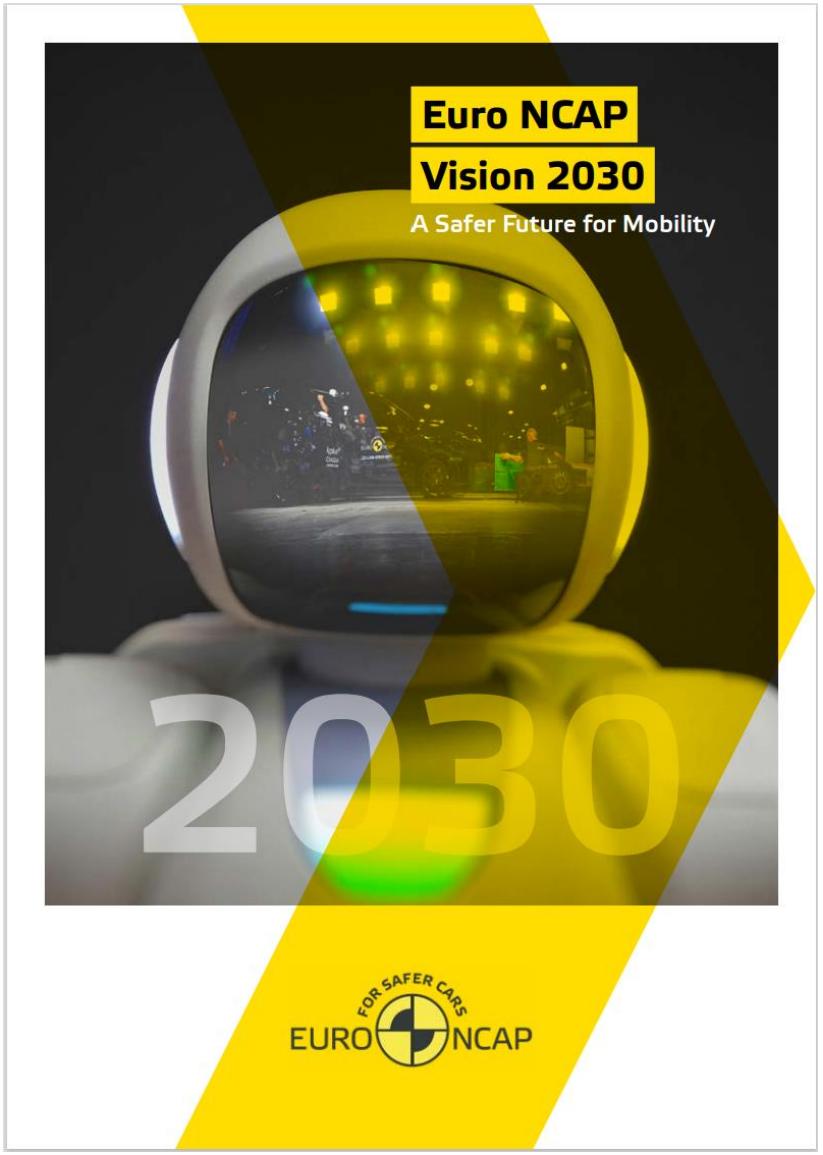
Assisted Driving

Commercial Van Safety

Euro NCAP

- Roadmap **2025-2030**

Published Nov 9, 2022



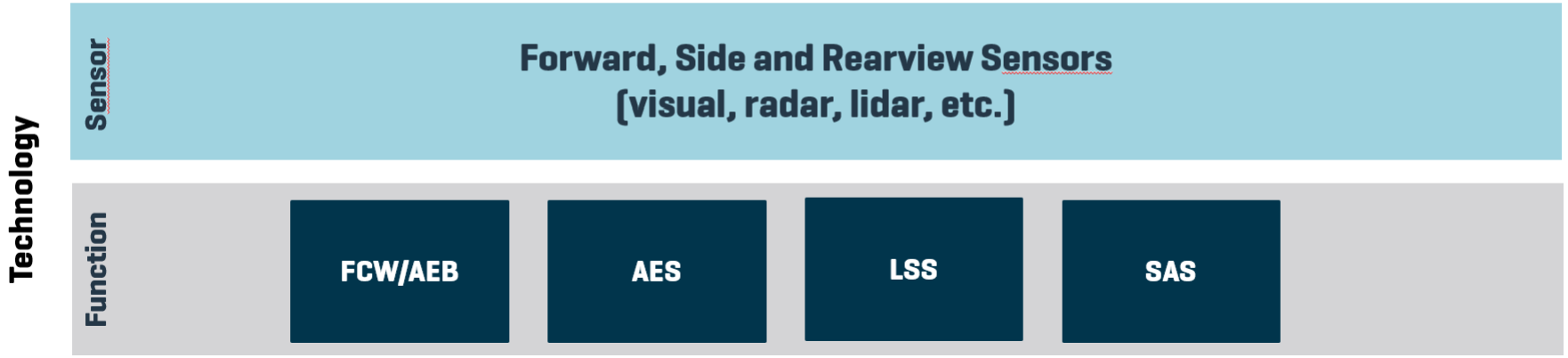
TRAFIKVERKET

Adult occupant	Child occupant	Vulnerable Road User	Safety assist

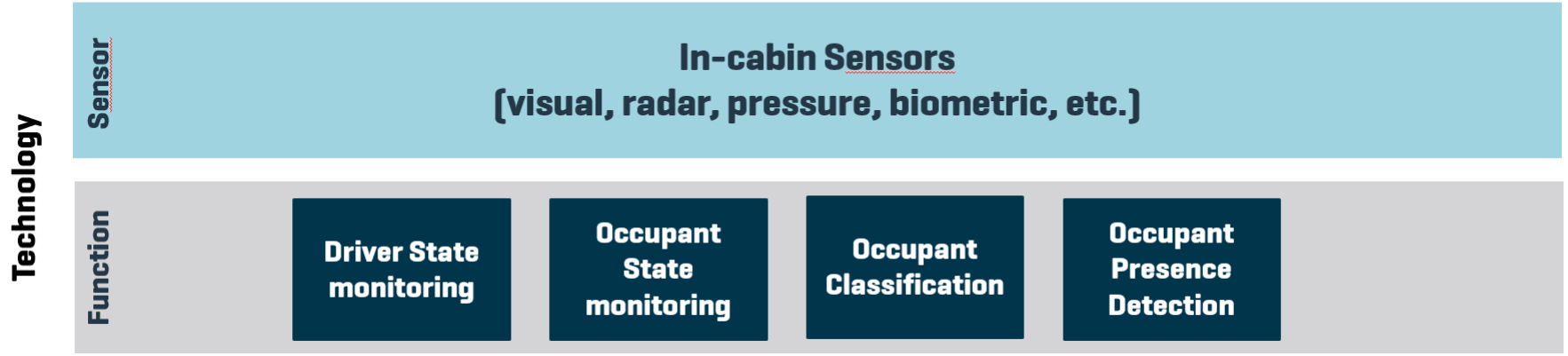
Safe Driving	Crash Avoidance	Crash Protection	Post-crash
– Speed assistance – Driver & Occupant monitoring – Assisted and automated driving	– Autonomous emergency braking and steering (C2C & VRU) – Lane support	– Occupant protection in front and side crashes – Whiplash injury prevention – Child occupant protection – Pedestrian and cyclist protection	– First and second responder rescue information – Extrication, fire, submergence – Digital emergency services

TRAFIKVERKET

See, Think, Act: Exterior Sensing

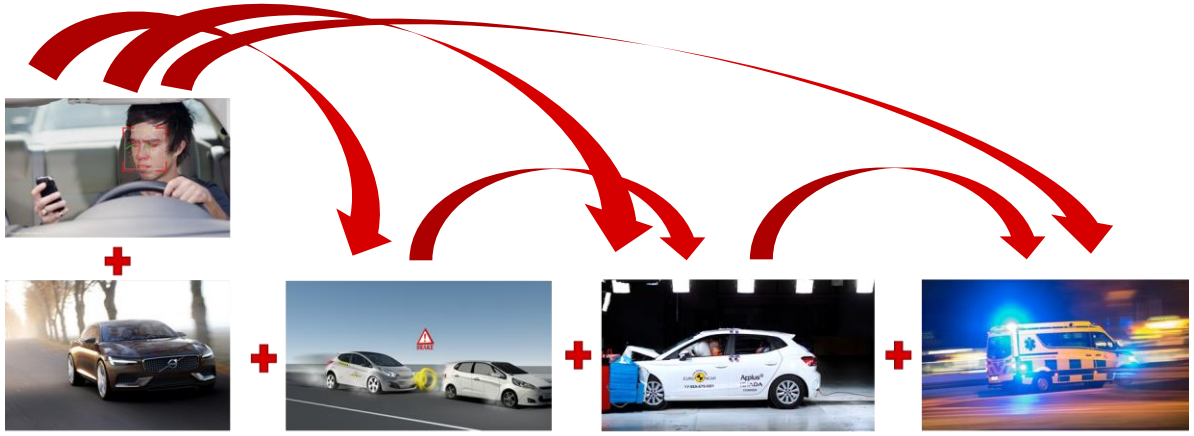


See, Think, Act: Interior Monitoring



TRAFIKVERKET

Pre- till post-crash



Safe Driving	Crash Avoidance	Crash Protection	Post-crash
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TRAFIKVERKET

Frontalkrock

- Fler krockhastigheter (äldre)
- Hjärnskador (FE)

	Oförändrat		Idag 50 km/h		Tillägg		Tillägg
Front Protection	**MPDB 50 km/h**		**FW(D)B 35 km/h**		**Sled 56 km/h (BIW)**		**Sled (CAE)**
First row	Average	Small	Small	Average	Large	Small	Small to large Pulse Seating
Second row	Child (6)	Child (10)		Small			
IARV	As current		IRF of 65 years (elderly)		IRF of 45 years		

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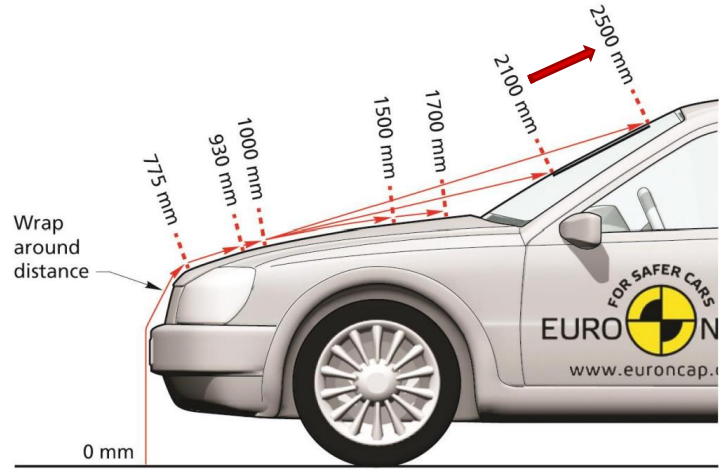
TRAFIKVERKET

A-stolpe VRU



EURO NCAP FOR SAFER CARS

TRAFIKVERKET

Kollisionsundvikande Auto-broms (AEB)

- Mikromobilitet
- Robusthet
  - Regn, dimma, ljus, röriga situationer
- Vilt?
- Länk till driver monitoring
- HMI
- Pedal misapplication

TRAFIKVERKET

Hastighetssystem (Speed Assist)

- Noggrannhet
- Hastighetsbegränsning (”aktiv gaspedal”)
- Lokala faror
  - Vägarbete
  - Olycka
  - Köbildning
  - Fotgängare på motorväg
  - Halka
  - Spökkörning
  - etc

TRAFIKVERKET

Åkandestatus (Occupant Status)

- Alkohol
- Plötslig sjukdom – tidiga tecken
- Bättre bältespåminnare
- HMI
- Länk till andra krav:
  - Adaptiv ADAS
  - Adaptiva bälten
  - D-call
- Kognitiv distraktion
- Kombinera sensorer

TRAFIKVERKET

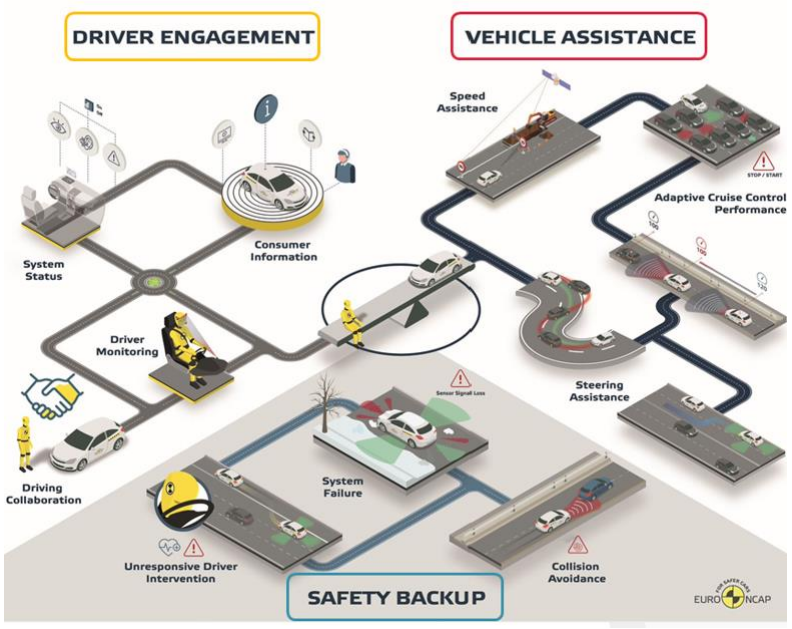
Post-crash

- Oskyddade
- E-call -> D-call

TRAFIKVERKET

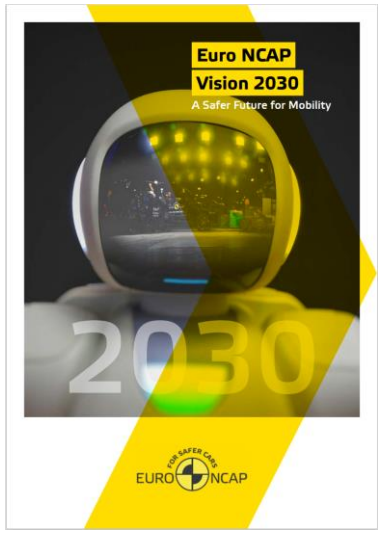
Assisterande system Automatiserade?

- ”Bonus/malus”

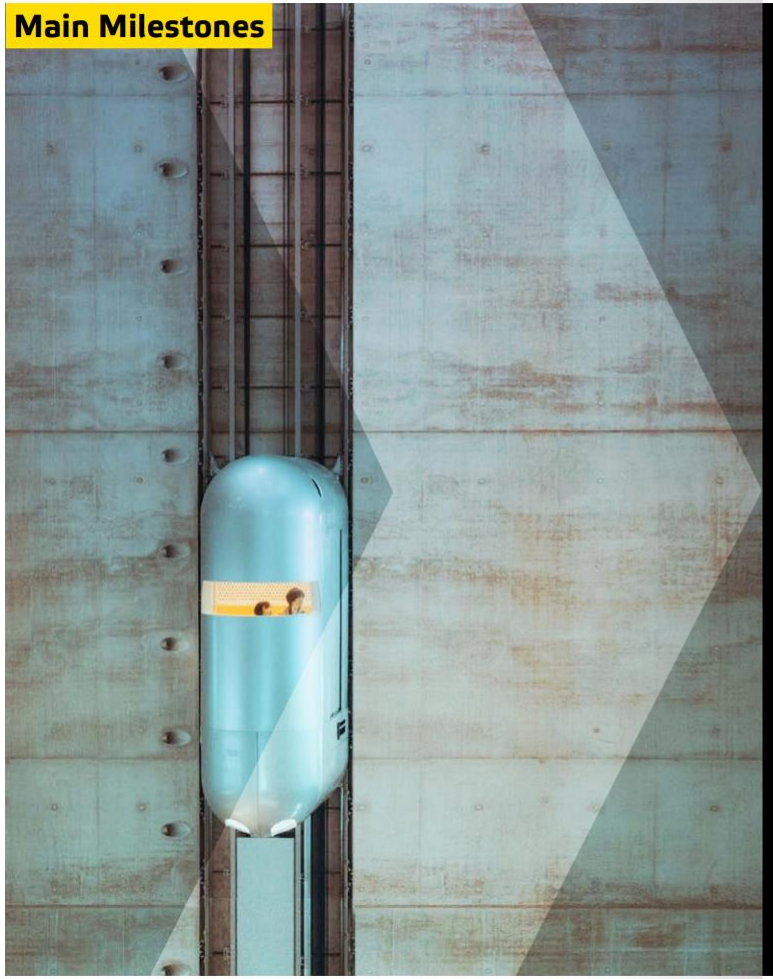


Översikt

TRAFIKVERKET



Main Milestones



2026 2029 2032

Safe Driving

- M1 Beyond Intelligent speed assistance
- M2 Driver Awareness: impaired driving to cognitive distraction
- M3 AD Grading: Domain extension and driver engagement

Crash Avoidance

- M4: Improved robustness and real-world effectiveness
- M5: Leveraging vehicle connectivity
- M6: Pedal misapplication

Crash Protection

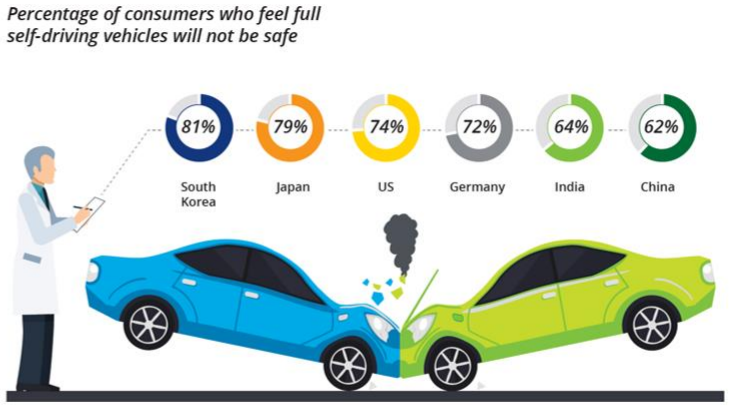
- M7: Senior protection: low severity testing with sled
- M8: Far-side and side pre-crash incentives
- M9: Protection equity through modelling
- M10: Whiplash protection parity
- M11: Passive VRU protection – A-pillar and micro-mobility

Post-Crash Protection

- M12: Next-gen updates including D-call and thermal scanning

TRAFIKVERKET

Delad & autonom mobilitet



© Deloitte Global Automotive Consumer Study

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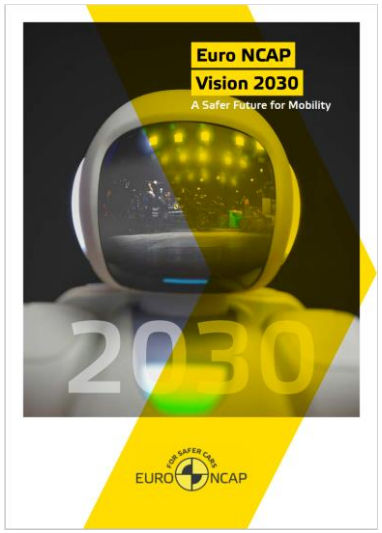

HGV Roadmap – Draft v3.2

EURO NCAP
www.euroncap.com

HGV Ratings – Safer and Cleaner Roads for Europe

1 What are the Challenges?

In its roadmap to 2025 (Euro NCAP, 2017) Euro NCAP announced its intention to support the development of a truck city safety label. In 2020 the Commercial Vehicle working group was created and began by developing assessments of the ADAS offered on light commercial vehicles <3,500kg[1]. This work has resulted in the world's first Commercial Van Safety Ratings. The organisation is now building on that concept to develop a rating scheme for Heavy Goods Vehicles (HGVs) with a maximum permitted mass >3,500kg. While vans and HGVs have a similar function, to move goods around, they are quite different vehicles, subject to different regulations, and operated quite differently. When discussing freight transport with our stakeholders, many of our stakeholders urged us to integrate the concept of both safe and clean freight into our rating. This integration and several other challenges unique to the freight market will be new to Euro NCAP, so this document marks the beginning of a new, challenging and exciting journey for us and all of our existing members and those who may wish to join us in our new venture.

1.1 Why HGVs?

Goods transport is an essential fact of modern life, providing most of our food and the luxuries in life. Although there are moves to transfer freight travel from by road, lots of operational and infrastructure constraints limit the opportunities and across Europe, the vast majority is still transported by road. Unlike passenger transport, there is no option to replace physical transport with video conferencing. Population growth and increases in the standard of living will only increase freight demand. The net effect is a prediction (ITF, 2019) that global freight demand will treble between 2015 and 2050. HGVs are likely to become more important, not less.

With this increase comes the negative effect on road safety and the environment. Combining statistics from various sources[2345678] (ERSO, 2017) shows that Heavy goods vehicles represent around 1.4% of vehicles on Europe's roads and around 6% of all traffic. They are involved in the collisions resulting in around 3.6% of all road casualties, 4.5% of killed or seriously injured casualties and 14% of fatalities. They contribute around 8% of NOx from road transport and heavy-duty vehicles produce 27% of the CO_2

Draft

[1] https://www.euroncap.com/en/vehicle-safety/safety-campaigns/2021-commercial-van-safety/
[2] Based on data extracted from https://ec.europa.eu/eurostat/data/database
[3] DfT licensing statistics table veh0101 https://www.gov.uk/government/statistical-data-sets/all-vehicles-veh01#licensed-vehicles
[4] DfT licensing statistics table veh0101 https://www.gov.uk/government/statistical-data-sets/all-vehicles-veh01#licensed-vehicles
[5] https://roadtraffic.dft.gov.uk/summary
[6] DfT casualty statistics table RAS30017 https://www.gov.uk/government/statistical-data-sets/reported-road-accidents-vehicles-and-casualties-tables-for-great-britain
[7] https://www.eea.europa.eu/themes/transport/heavy-duty-vehicles#:~:text=In%20the%20EU%2D28%2C%20HDVs,are%20projected%20to%20further%20increase.
[8] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1040516/env0301.ods

TRAFIKVERKET

Roadmap 2030 - Lastbilssäkerhet

FOR SAFER CARS EURO NCAP

		Accident scenario	Weighting*	2024							2027			2030				
				Speed Assistance	AEB vehicle front to rear	Lane Support	AEB VRU	Direct Vision	AEB Nearside turning	Rescue info, eCall, ...	OSM	Motion inhibit	AEB Reverse	AEB TAP	AEB Head On	Passive Ped Protection	Crash compatibility front/side	Occupant protection
CITY SAFE 2023 Silver Rated	Partner protection	VRU Crossing	40%	●			●				●					●		
		Stationary or walking VRU	5%	●		●	●				●	●				●		
		VRU in collision with low speed manoeuvring truck	20%				●	●	●		●							
		VRU in collision with reversing HGV	5%								●		●					
		PTW rider in collision with HGV	10%	●	●						●							
		Car occupant in collision with HGV	15%	●	●	●				●	●			●	●		●	
	Self	HGV occupant in collision	5%	●	●	●					●			●	●			●
HIGHWAY SAFE 2023 Gold Rated	Partner protection	VRU Crossing	5%	●			●				●					●		
		Stationary or walking VRU	5%	●		●	●				●	●				●		
		PTW rider in collision with HGV	10%	●	●						●							
		Car occupant in collision with HGV	65%	●	●	●				●	●			●	●		●	
	Self	HGV occupant in collision	15%	●	●	●					●			●	●			●

TRAFIKVERKET

Typisk krock, oseparerad väg

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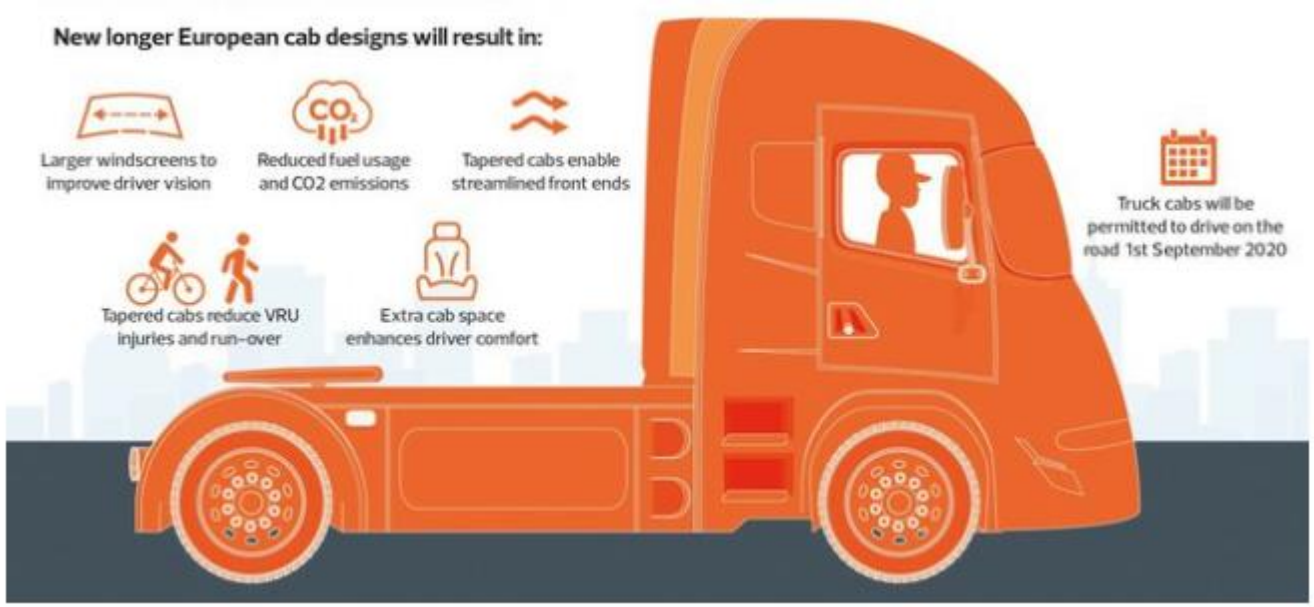
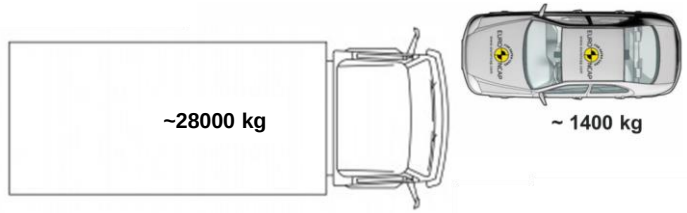
Ok med längre om säkrare



Krockprov

TEST SETUP: 50 / 50km/h, 50%overlap



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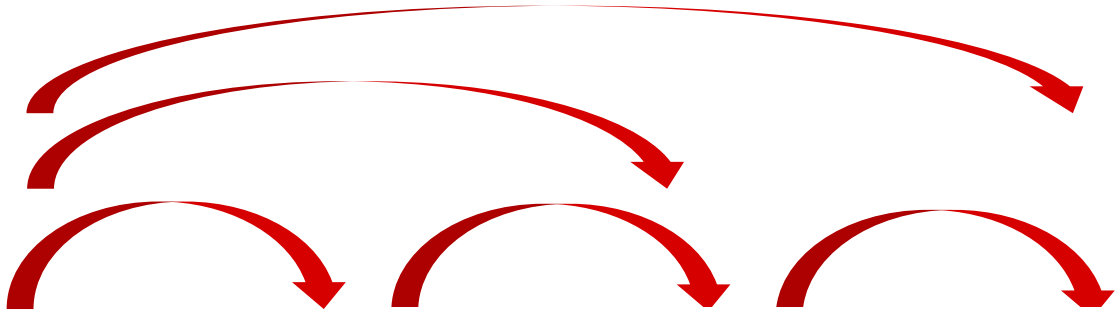
Verklig integrerad säkerhet



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TRAFIKVERKET

1

Personbils-säkerhet

- Uppdatering till Totalrating
- Reviderad “Assisted Driving” rating

2

Kommersiella fordon

- Uppdatering skåpbilsrating
- TLB “Highway and City safety labels”

3

Delad & autonom mobilitet

- Safety Assurance Kitemark

4

Andra initiativ

- PTW säkerhetskampanj
- Cybersäkerhet & Data access

Tack!

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