

ADAS

Auto industry at risk of losing customer trust

10-minute Insight

The US National Highway Traffic Safety Association (NHTSA) recently released data on crashes involving vehicles equipped with automated driving systems or SAE Level 2 advanced driver assistance systems.

The data has been amplified by the media, which is building a narrative that ADAS systems are not as safe as they claim to be.

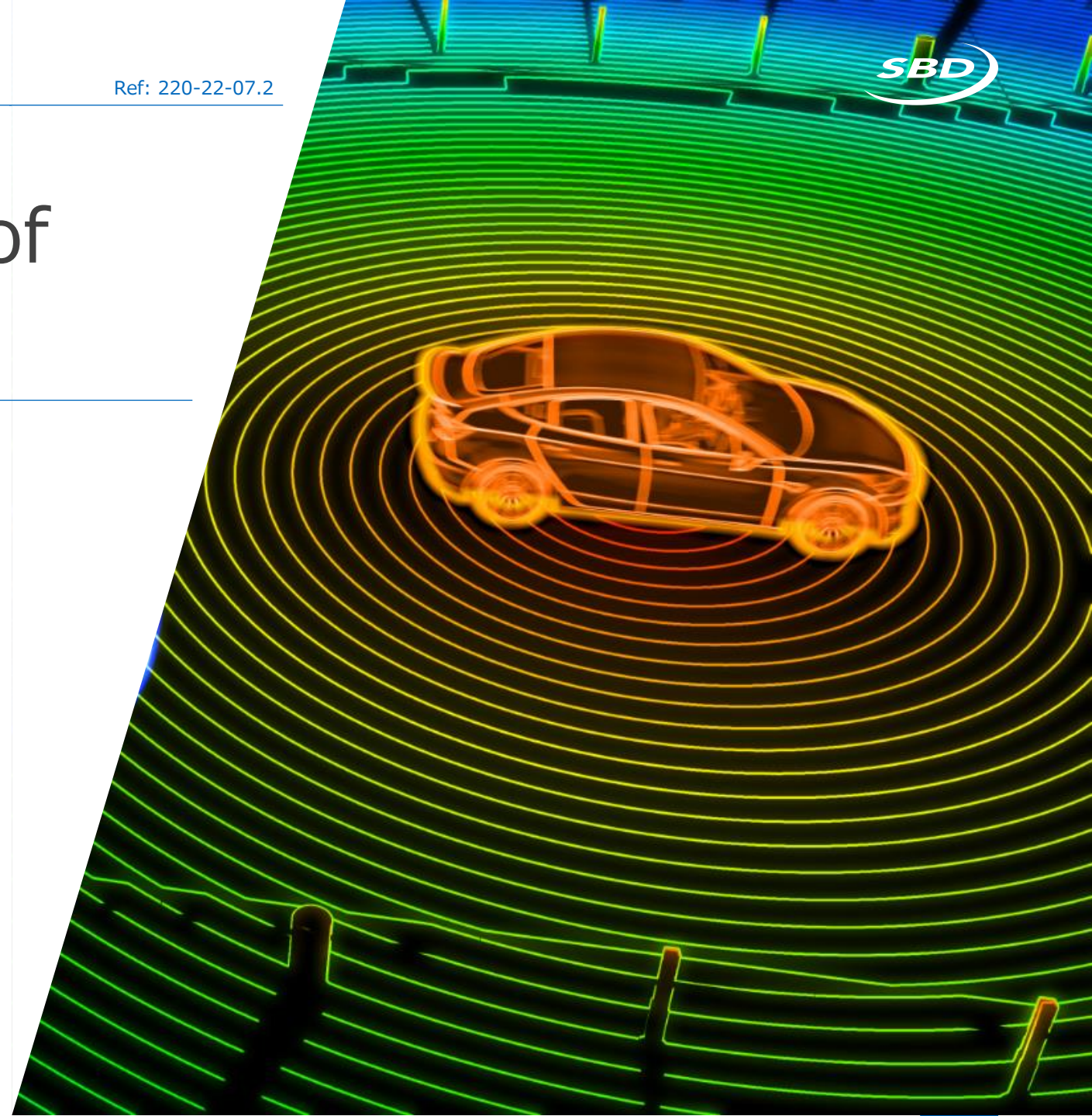
In this insight we provide more context on how ADAS systems are affecting vehicle accidents, and analyze the risk of losing consumer trust at a time when car makers are building ambitious plans for greater levels of autonomy.

Target audience

Product planning Strategy
Legal Marketing Engineering

Focus market(s)

USA



42,915
Total # of fatalities

7 fatalities

of fatalities that involved ADAS-enabled vehicles



CARSCOOPS
Tesla, Honda And Waymo Lead NHTSA Reporting On Crashes Involving Automated Driving Systems

INSIDEEVs NEWS REVIEWS Q
NHTSA Shares ADAS Crash Data And It Puts Tesla In A Bad Light

"Turns out self-driving cars might not be that good at driving"
Shepard Smith, CNBC ([link](#))

Media response to news of ADAS-related fatalities

Key takeaway

NHTSA now requires car makers to document crashes when ADAS and automated technologies are in use within 30 seconds of impact, and is releasing monthly data on crashes involving vehicles with ADAS systems.

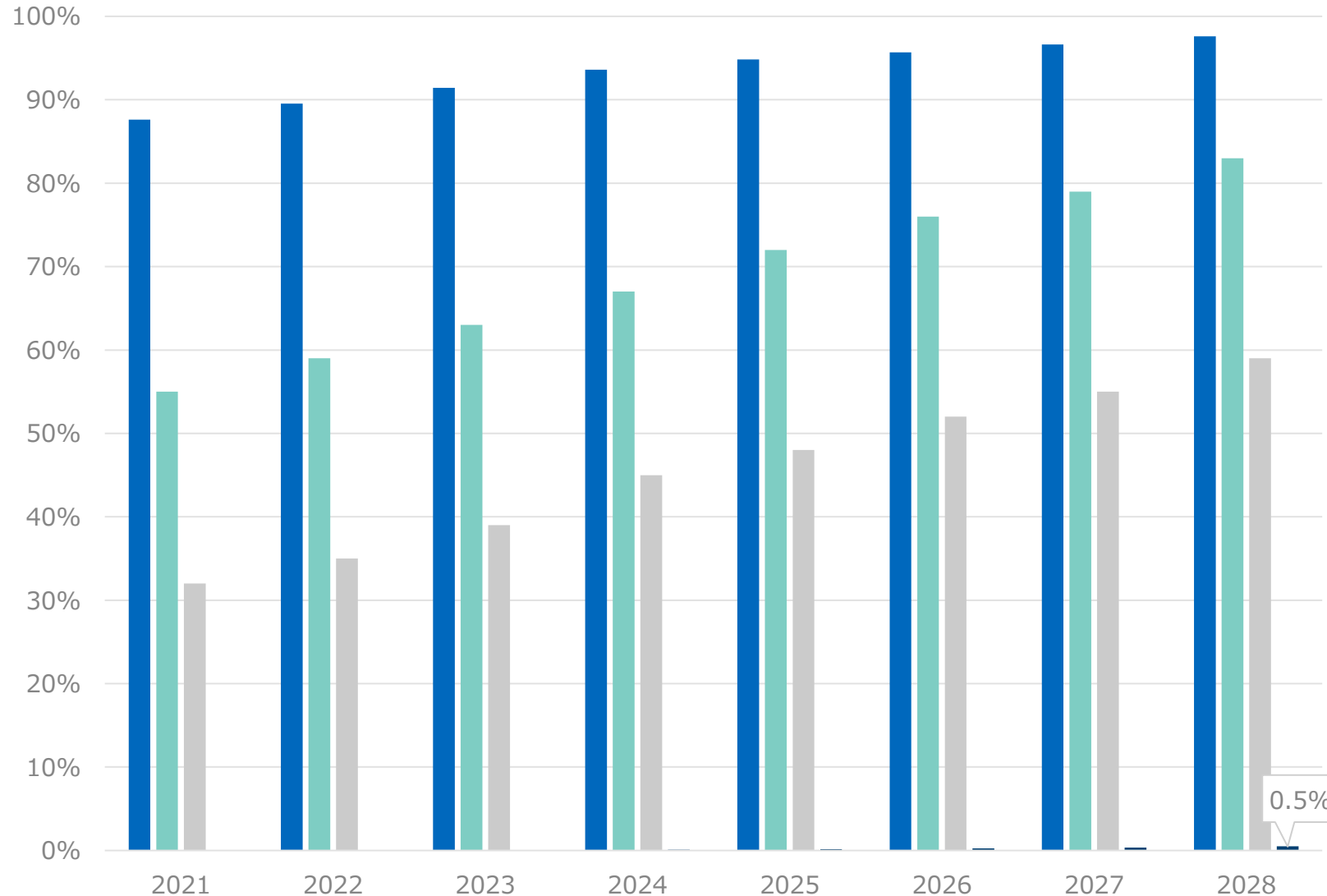
- In total there were over 6 million crashes in USA in 2021, resulting in 42,915 fatalities. For the period that NHTSA tracked accidents involving ADAS (10 of those months), 392 ADAS-related crashes were detected and 7 fatalities.
- However, the media response has been to amplify these accidents, particularly in relation to Tesla (which accounted for 70% of those accidents).
- This is despite [studies](#) demonstrating significantly decreases in accident rates for ADAS-equipped vehicles.

6 Million Total # of vehicle crashes

Why does it matter?



Growth forecast of ADAS-equipped vehicles in USA



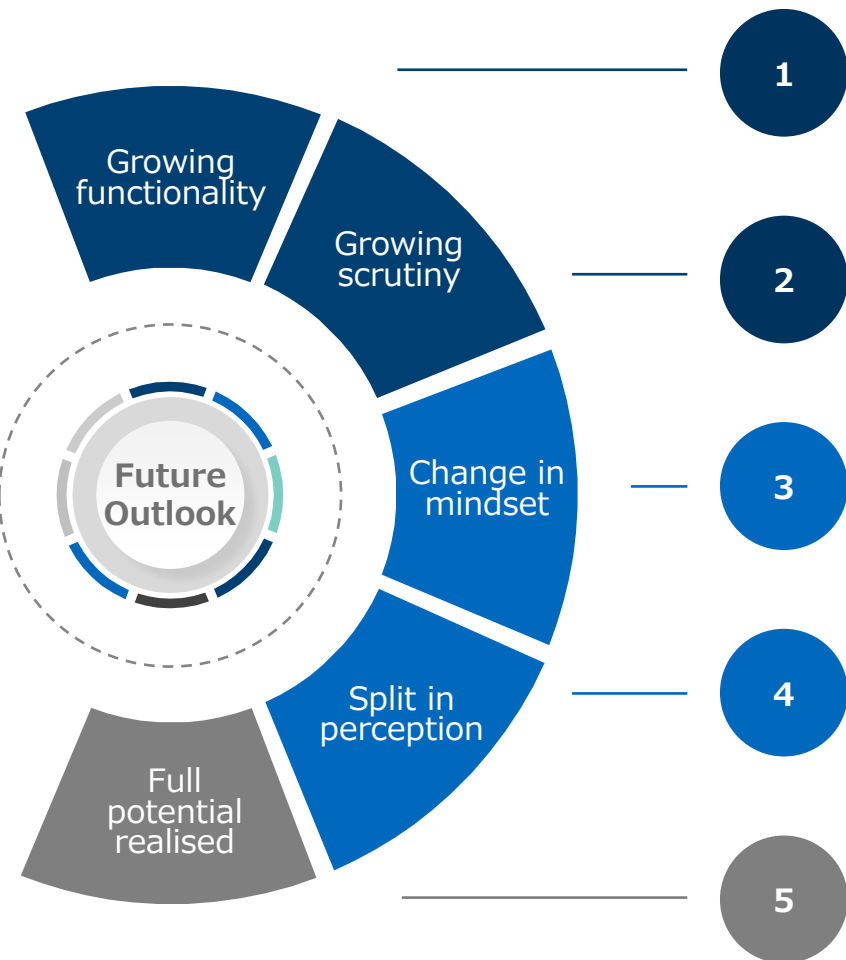
Key takeaway

The automotive industry is racing towards higher levels of autonomy, with the focus transitioning from assisting drivers and keeping them safe, to delivering more convenient mobility experiences.

- L0-L1 ADAS systems are already widely available in USA and various other markets, and these have already been credited for helping to save thousands of lives.
- Although the transition to L3/L4 will take longer, OEMs are extending the functionality and fitment of L2 systems (which are designed to handle braking and steering with driver supervision).
- The risk car makers face is that their investment in technology will outpace consumer acceptance, particularly if the media amplifies negative stories. This in turn could increase the risk of governments clamping down on convenience-based AV use cases.

* Data from SBD's ADAS & Autonomy Guide (Ref: 534) ([link](#))

** Forecast based on SBD's ADAS & Autonomy Forecast (Ref: 538) ([link](#))



1 The penetration and functionality of ADAS systems will continue to grow, creating more complexity on roads that now have a mix of ADAS and non-ADAS equipped cars

2 Governments and insurers will increase their scrutiny of ADAS systems and their impact on safety

3 The industry may conclude that safety cannot be a differentiator, and begin collaborating to jointly address safety concerns

4 Consumer perception about automated driving will split, with some consumers fully embracing autonomy while others strongly react against it

5 We are still decades away from reaching a stage where autonomous driving is mature and ubiquitous enough to eliminate or significantly reduce accidents/fatalities

Key takeaway

The (very) long-term adoption and success of autonomous vehicles is not in doubt – but how consumers and governments respond to L2/L3-equipped vehicles in the short-term will have a major impact on how long it takes to reach the end goal.

- Currently car makers are still being allowed to develop, deploy and monitor ADAS-equipped vehicles relatively independently.
- Moving forward, the automotive industry may need to adopt a similar approach to the aviation industry, where safety incidents are centrally reported and investigated with full collaboration among all stakeholders.
- This will require a mindset shift among car makers away from 'Safety as a Differentiator' and towards 'Safety as a Common Purpose'.
- Without this shift, the risk of consumer and governmental backlash will grow.

Insurance

Insurance companies are working to quantify the benefits and cost of ADAS fitment in vehicles. What they discover and how they adjust their premiums will have a significant impact on consumer perceptions.

Tesla

Tesla's approach to growing the functionality and performance of its ADAS systems has been to rely on their customers as 'Beta testers' – this allows them to progress quickly, but also increases the likelihood of a backlash.



Consumers

Consumers today are still mostly in an early stage of understanding and accepting higher-functionality ADAS systems. Many will embrace these systems eventually – some will react strongly against them.

Regulators

Regulators have a role in both supporting the growth of potentially life-saving ADAS technologies, while also carefully controlling the industry's efforts to introduce greater levels of vehicle autonomy.

Key takeaway

A lot of stakeholders need to be aligned in order for highly automated vehicles to become widely adopted and accepted.

- One of the major misalignments so far has been Tesla's disruptive approach to developing and testing its 'Full Self Driving' system – if Tesla fails to convince consumers and regulators that this approach benefits society (rather than just their market valuation), there is a strong risk that the whole industry will be tarnished by association.
- Insurers may ultimately play a significant role in proving (or disproving) the benefit of different levels of ADAS functionality, although their own role is being challenged as some car makers look to roll out in-house insurance plans.
- The canary in the mine continues to be consumers – watching how they respond and whether 'Anti-AV' groups emerge will be key.

How should you react?



1

Collaborate

Car makers should consider forming an alliance to counter Tesla's strategy with a more collaborative 'Safety-first' approach. This alliance could openly share accident data in order to build consumer trust and help optimize the effectiveness of ADAS systems.

2

Standardize

In parallel to investing in higher-levels of automation, car makers should consider how lower-levels of automation can be standardized in order to build familiarity and acceptance among consumers (e.g. ADAS HMI, terminology, etc).

3

Educate

Car makers should consider setting up new divisions within their organization purely dedicated to educating consumers about the transition to higher levels of automation. This education needs to extend across the entire vehicle lifecycle and across the retail/dealership network.

Authors



Edward Paez
Specialist



Andrew Hart
CEO



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