

Allianz Motor Day International Mobility Summit 2025

“The global evolution of autonomous mobility and its implications for road safety and insurance”

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1. Opening: Road traffic is changing – and faster than we think

Ladies and gentlemen, it is a pleasure to welcome so many partners, journalists and experts here to the AZT, the Allianz Center for Technology, in Ismaning. And to those joining us online, thank you for also being part of this important conversation about the future of autonomous mobility.

Just four years ago, during our last Motor Day focused on autonomous driving, such vehicles were still confined largely to labs and test tracks. Indeed, real-world deployment felt like a distant prospect.

How quickly that has changed.

Today, autonomy is no longer a vision – it is becoming part of our transportation landscape. Mercedes-Benz and BMW have achieved regulatory approval for Level 3 vehicles across Europe, enabling hands-free driving under defined conditions.

Level 4 vehicles – those capable of full self-driving without human input within geofenced zones – are also being piloted. Many know that Baidu and Waymo are running L4 robotaxis on public roads in China and the US, but few realize Volkswagen is also testing autonomous ride-hailing services in Hamburg, Munich and Austin, Texas. Allianz is already insuring pilot zones and test fields in Singapore, Oslo, and Germany, helping turn prototypes into safe, real-world services – and this is only the beginning.

Autonomous driving is accelerating from concept to reality, reshaping how we move and how we insure mobility. Today, I want to explore four critical questions:

- First, what does the large-scale deployment of Level 3 and Level 4 vehicles mean for safety, inclusion and sustainability?
- Second, how must insurance respond to a new and more complex liability landscape?
- Third, how are we evolving our modeling, pricing and products to ensure that the safety impact of autonomous vehicles go hand in hand with the affordability of premiums?
- Finally, what coordinated action must automakers, insurers and policymakers take to ensure that autonomous mobility in Europe is safe, scalable and trusted?

2. Proof over promises: Allianz claims analysis confirms positive safety impact while people perceive autonomy with both confidence and caution

At Allianz, we see AVs as a technology leap with enormous potential for safety improvements.

Globally, over 1.2 million lives are lost to road accidents every year – nearly 20,000 in the EU alone. Most of these are caused by human error: distraction, fatigue and misjudgment. Autonomous systems, by design, do not suffer from these flaws.

The AZT reviewed more than 50 international publications, scientific studies and accident datasets focusing on SAE Levels 3 and 4. Across these studies, the picture is consistent: autonomous systems outperform human drivers in key accident categories and could eliminate the majority of the most severe collision types.

For example, automated systems can reduce rear-end collisions, lane departures and intersection errors by up to 85%. A simulation analysis of reconstructed fatal crashes in Arizona indicated that, if the Waymo Driver – a highly automated system – had replaced human drivers, 82% of accidents could have been avoided and a further 10% mitigated in severity.

In fact, much of this evidence comes from controlled US pilots or idealized tests in well-mapped urban routes. Conditions in today's mixed traffic realities differ. That is why we ran a European reality check using our own claims data. The focus was two frequent accident types: low-speed reversing and rear-end collisions in moving traffic. These are where

assistance systems such as automatic emergency braking (AEB) should matter – and the data now show they do.

For reversing accidents, the effect is stark. One car manufacturer that made rear AEB standard in 2018 cut reverse-parking collisions by almost two-thirds. A second one that kept it optional saw a far smaller drop of around 30%. Models without the function show virtually no improvement.

Rear-end collisions tell a similar story. Across compact class vehicles, Allianz data reveal a 30% decline in rear-end crashes for the newest models versus those from a decade earlier. The scale of improvement depends on how early and how broadly AEB was rolled out. Some models show only single-digit declines, while others achieve reductions of up to 46%. And taking mixed traffic into account, the AZT projects a 20% reduction in vehicle-to-vehicle collisions in Europe by 2035 and more than 50% by 2060. For Allianz, this argues for broad, standardized implementation of driver assistance systems.

The conclusion: make effective assistance standard – and safety gains follow immediately. Make it optional and the benefits stay modest.

But safety represents just one benefit. AVs also promise to democratize mobility and deliver potentially significant environmental advantages.

Picture a future where your teenager returns safely from practice without needing a lift, where rural residents can access vehicles more easily, where your elderly parent reaches medical care independently. Imagine autonomous, electric delivery fleets with real-time route optimization glide quietly through cities – reducing noise, cutting emissions and easing congestion.

That is the world Allianz is working to insure. As a leading motor insurer, we are committed to driving a transition to AVs, which is managed with care, clarity and collaboration.

Still, for this to materialize, one element is essential: trust. Not just in the technology but in how it is governed, how data is managed and how accountability is assigned when something goes wrong.

Allianz surveyed more than 8000 people across Europe to assess public trust in autonomous vehicles. The results show cautious curiosity: 55% believe AVs can be as safe as human drivers, with 38% seeing them as safer. Views differ across countries – the Italians are most optimistic, with 65% believing AVs are as safe or safer than human-driven cars.

Germans and Austrians are more wary, while only 44% of the British express similar confidence.

Yet familiarity with autonomous driving remains low. A third of Europeans say they are not at all familiar with the technology, and only a minority have tried systems beyond Level 2.

What is clear is that across Europe, trust hinges less on perfection and more on proof. People not only want autonomous vehicles to match or exceed human safety, they want this backed by transparent data, strict oversight and clear accountability. And the pivotal question remains: when no human is in control, who carries liability?

3. Rethinking liability in an autonomous world

As vehicles become more autonomous, we are entering uncharted legal territory. For over a century, insurance has assigned liability to the human driver – or more precisely, the vehicle’s owner. But what happens when no human is actively driving?

Consider this real-world scenario: a Level 4 robotaxi approaches an intersection on a rainy evening. A pedestrian steps onto the crossing just as the light turns red. Simultaneously, a human-driven car hydroplanes into the robotaxi’s path. The AV must react – brake and risk hitting the pedestrian or swerve to avoid them. It swerves but collides with the oncoming vehicle. No one is hurt – but who is liable for the damage?

- Was the algorithm calibrated correctly?
- Did the sensors function properly – or were they dirty, obstructed or rain-soaked?
- Was there human negligence – for example, an inattentive driver in the human-driven car or by the pedestrian?

With AVs in mixed traffic scenarios, the clarification of cause becomes exponentially more complex. Imagine a severely injured pedestrian having to prove a product defect to pursue legal action against a manufacturer. While manufacturers and their product liability insurers bear initial responsibility for their products, actual liability could rest with the vehicle owner, manufacturer, software developer – or all three. Increasingly, it may also involve remote supervisors, sensor providers, or integrators. No victim should face this growing web of liability alone. Mixed-control accidents demand an independent actor – one that can determine root causes, protect victims and coordinate remedies.

Allianz's position is clear: Victim protection must remain central to AV insurance. Liability must stay with the vehicle owner, no matter who or what is in control. And motor insurers must remain the first point of contact for victims – and as the independent assessor that disentangles human negligence from technical failure.

Why insurers? Over decades we have built trusted claims handling, forensic investigation skills and neutral data access across manufacturers, software providers and sensor suppliers. That experience makes insurers uniquely placed to run objective root-cause analysis, secure evidence, allocate liability fairly and pay promptly.

At Allianz, our role goes beyond simply compensating innocent traffic victims quickly and fairly. We also help clarify how accidents occurred, allowing us to seek manufacturer recourse when needed and, more importantly, contribute to addressing systemic technical issues to help improve overall safety.

Naturally, we also consider whether insurance premiums should be adjusted for specific vehicle types. Higher-risk vehicles will continue attracting higher premiums, creating meaningful incentives for manufacturers to improve system safety and performance – an outcome we fully support.

4. What does this mean for our policies and pricing?

The shift to autonomous mobility is not just a legal challenge – it is also a strategic opportunity.

As AV systems become more advanced and widespread, the frequency of traditional accidents should decline. However, damage will still occur, and when accidents do happen, costs are likely to be higher than today. With cameras and sensors now integrated into bumpers, mirrors and other components, repairs are becoming significantly more expensive. We will also continue to see physical damage claims from events like hail or theft, plus potentially new types of claims emerging – such as those related to cyber risks or system malfunctions.

Generally, fewer accidents mean fewer claims overall, and a stronger safety record will be fairly reflected in premium levels – good news for our customers.

AVs will also transform how we assess and price risk. While traditional vehicle classifications – based on historical claim frequency – remain relevant, their importance

will gradually decline as we emphasize driver assistance system safety performance. We are evolving our pricing models by complementing existing type classifications with a safety scoring model that reflects how both the vehicle and its systems contribute to overall risk. This will ensure a more accurate and forward-looking approach to premium setting.

At a time when consumers face rising living costs, this message bears emphasizing – autonomy can deliver both safety *and* affordability of motor insurance. That is why we continue to develop our products based on real-world driving performance, strengthening our commitment to data-driven pricing. Choosing autonomy should not feel expensive – it should feel like the safer and financially smarter choice.

At Allianz, we are actively shaping the future of autonomous mobility. Through early-stage collaborations with commercial AV operators and tech partners, Allianz is co-developing the insurance standards that will govern future mobility. These standards will meet existing legal requirements while adapting to future technology and regulation, treating technical failures like human error while preserving victim protection and providing clear, direct compensation.

We are piloting innovative insurance solutions for driverless busses and AV test fields in several markets. However, there will be no one-size-fits-all solution across all core motor insurance markets. Legal systems differ, particularly regarding liability, as do mobility models. But one principle must remain constant: insurance must deliver clarity, compensation and trust – especially in a world of distributed accountability.

5. A call-to-action – towards a unified European framework for autonomous mobility

Autonomous mobility is no longer a question of *if*. It is about *how fast, how fair and how safe*.

Yet, while the existing Regulation (EU) 2022/1426 sets out procedures for approving automated driving systems, national implementation remains fragmented. Automakers therefore face inconsistent requirements across markets – for instance, in the types of tests or technical inspections that must be conducted.

We at Allianz continue to place strong trust in the reliability and diligence of European manufacturers. However, to maintain their global competitiveness in this crucial field, a

harmonized regulatory environment is essential. From Allianz's perspective, three priorities must be implemented without delay:

First, Europe needs harmonized technical type approval and testing procedures for autonomous vehicle approval across all member states – effectively creating a European uniform testing approach for autonomous vehicles. Let's call it a "driving license" for autonomous vehicles and their systems. This would simplify market access, enhance safety assurance and accelerate innovation.

Second, Europe must have uniform standards for access to safety and accident data. The European Commission's proposal on vehicle data sharing under the EU Data Act (Regulation 2023/2854) provides an important foundation. Allianz believes that data-sharing use cases should be assessed in terms of both benefits and costs. For accident and safety-relevant vehicle data, the benefits are clear. A framework developed jointly by insurers, manufacturers and regulators would improve road safety, strengthen public trust and accelerate acceptance of autonomous mobility.

Insurers could, for instance, contribute hotspot data on high-risk scenarios or accidents, while manufacturers could share system performance data. Our aim is a framework that helps European manufacturers lead on safety.

Finally, there must be a European shared database of critical traffic situations that vehicles must handle. This must cover all accidents in autonomous mode and near-misses when accidents could be narrowly avoided. Manufacturers can use this data to simulate and validate system performance; it would also underpin the idea for a European driving license for autonomous vehicles.

Europe now faces a strategic choice. To make autonomy safe, scalable, and trusted, it must establish a harmonized regulatory framework, ensure sovereignty over critical data, and develop a European licensing model for autonomous cars and their systems. By advancing these measures, European regulation can not only strengthen the competitiveness of the continent's automakers but also lay the foundation for a more equitable, safer, and more sustainable mobility ecosystem.

In conclusion, the path to autonomous driving is not simply a technological shift – it is, at its heart, a social contract: a shared responsibility to build safer and more inclusive mobility. Every step forward means fewer collisions, fewer victims and greater mobility for millions.

But this is not just a race for innovation – it is a test of responsibility. At Allianz, we see our role clearly: we are not only insuring vehicles, we are insuring trust. Together with our Center for Technology, we will keep working with manufacturers, regulators and technology partners to turn that trust into safety and accountability that are measurable, verifiable and transparent.

Because only through shared effort can we turn progress into protection and innovation into impact. Allianz stands ready – with expertise, partnership and conviction – to help drive that future.

A future where mobility will be autonomous, but safety always remains in human hands.

Thank you.