

VEHICLE SAFETY

Vehicle safety ranked higher in our materiality assessment refresh in 2024, highlighting its increasing importance to our customers and other stakeholders.

Our Beyond100+ strategy prioritises proactive safety measures. Meeting our strategic goals requires a shift from reactive issue resolution to embedding safety throughout our design and development stages. This helps us create safer products by integrating safety protocols early in the process, thereby mitigating potential risks before they arise. We fulfil all requirements worldwide for the publication of recalls and safety campaigns.

Safety first

Our investment in new facilities and our enhanced Quality Management System, means that compliance with safety standards is embedded at every stage of the vehicle design and manufacturing process. Similarly, the enhanced Q Gate methodology means we identify and resolve issues earlier.

We apply the Group's Design Failure Mode and Effect Analysis process at a component level and maintain compliance with global safety standards, including Driver and Vehicle Standards Agency reporting and on-board diagnostics compliance.

Our new strategic and quality approaches have led to reduced product recalls in 2024.

Product testing

Throughout our vehicle engineering process, we pay meticulous attention to design for function and safety. Our product design and development has been further enhanced by the continued use of extensive Computer-Aided Engineering (CAE) simulation techniques. More recently, we have utilised virtual development validation and verification activities such as virtual simulators, software-in-the-loop, and AI-supported tools to improve vehicle safety.

We have introduced new active systems such as driver assistance, radars, cameras, and other advanced accident prevention technology. Compared to the previous passive systems, these support our vision of increased safety for our passengers and other road users.

As part of the full vehicle design and development process, from early simulation sub-system component testing to full vehicle crash testing, our validation ensures extremely high levels of occupant safety.

We also aim to maximise accuracy and use legally mandated 50th percentile male crash dummies as well as fifth percentile female crash test dummies, which are not legally mandated in all markets, but support our desire to explore safety parameters further.

Crash validation is carried out to meet global legislative requirements, Due Care Standards, Group Standards, and our own Standards. The results are shared with the relevant certification authorities.



Driver system checks on a GT at the end of the production line

Full vehicle testing

To ensure final quality for our customers, we thoroughly test the parts and processes that make up our vehicles. This includes both 100 per cent testing of finished vehicles, road tests and sample inspections for all parts.

In line with our sustainability goals, we aim to minimise waste as part of the testing process. This includes an increased reliance on advanced simulation technologies and virtual testing as well as utilising vehicles multiple times where possible, testing simulator vehicles rather than off-line vehicles, and recycling unusable test parts through our scrap process.