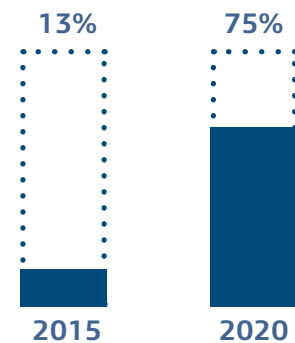


CONNECTED VEHICLE COMMUNICATION PERFORMANCE DESIGN AND PLACEMENT OF ANTENNAS FOR V2V AND V2X COMMUNICATION

With the increase of urban population and traffic the advancements of mobility technologies are gaining speed and importance. Connected vehicles have the potential to increase the safety on the road and improve the traffic flow. Investigations predict that 75 percent of all new shipped cars in 2020 will be connected to the internet.

The backbone of wireless high-speed V2V and V2X communication are antennas. In modern cars we find up to 30 antennas placed on and inside the vehicle. To ensure their compatibility and reliable function even before the car is actually on the road, engineers need efficient tools to design, assess and optimize antenna performance already during their development.

SHIPPED CARS WITH INTERNET CONNECTIVITY



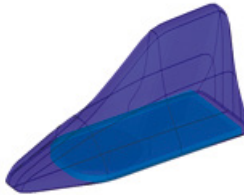
<https://www.fool.com/investing/general/2016/03/06/connected-cars-in-the-next-decade-4-numbers-everyo.aspx>

MASTER THE COMPLEXITY OF VEHICLE COMMUNICATION BY VIRTUAL PROTOTYPING

DASSAULT SYSTEMES OFFERS ACCURATE AND EFFICIENT ELECTROMAGNETIC COMPUTATIONAL SOLUTIONS FOR THE ANALYSIS OF ANTENNA DESIGN, ANTENNA PLACEMENT AND ANTENNA PERFORMANCE

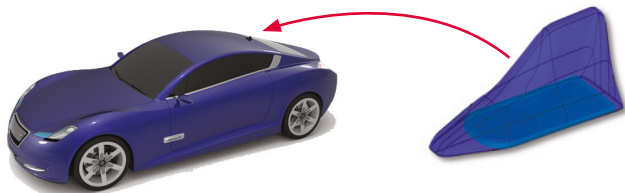
ANTENNA DESIGN

Combine modern design concepts with functionality and electromagnetic compatibility requirements.



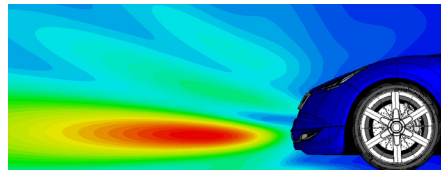
ANTENNA PLACEMENT

Ensure structural integrity with respect to design variants as well as other antennas and electronic devices.



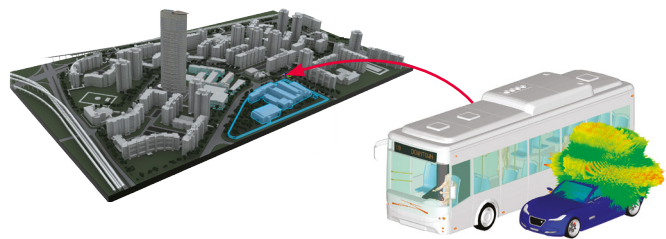
ANTENNA PERFORMANCE

Simulate and optimize antenna gain, signal range and directivity in context of the full vehicle and ensure immunity to interference.



FIELD COVERAGE

Investigate electromagnetic field distribution in the urban environment and analyze V2V and V2X communication in disruptive scenarios.



BENEFITS

Develop and Validate

Rapid and easy design and validation of new antenna concepts

Digital Continuity

Seamless real time collaboration between electronic and mechanical engineers to ensure antenna integration at the full vehicle level

Compliance and Safety

Accurate and validated results to ensure the product fulfills the required electronic certification standards

[Click here to learn more about electromagnetic simulation for automotive applications.](#)

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