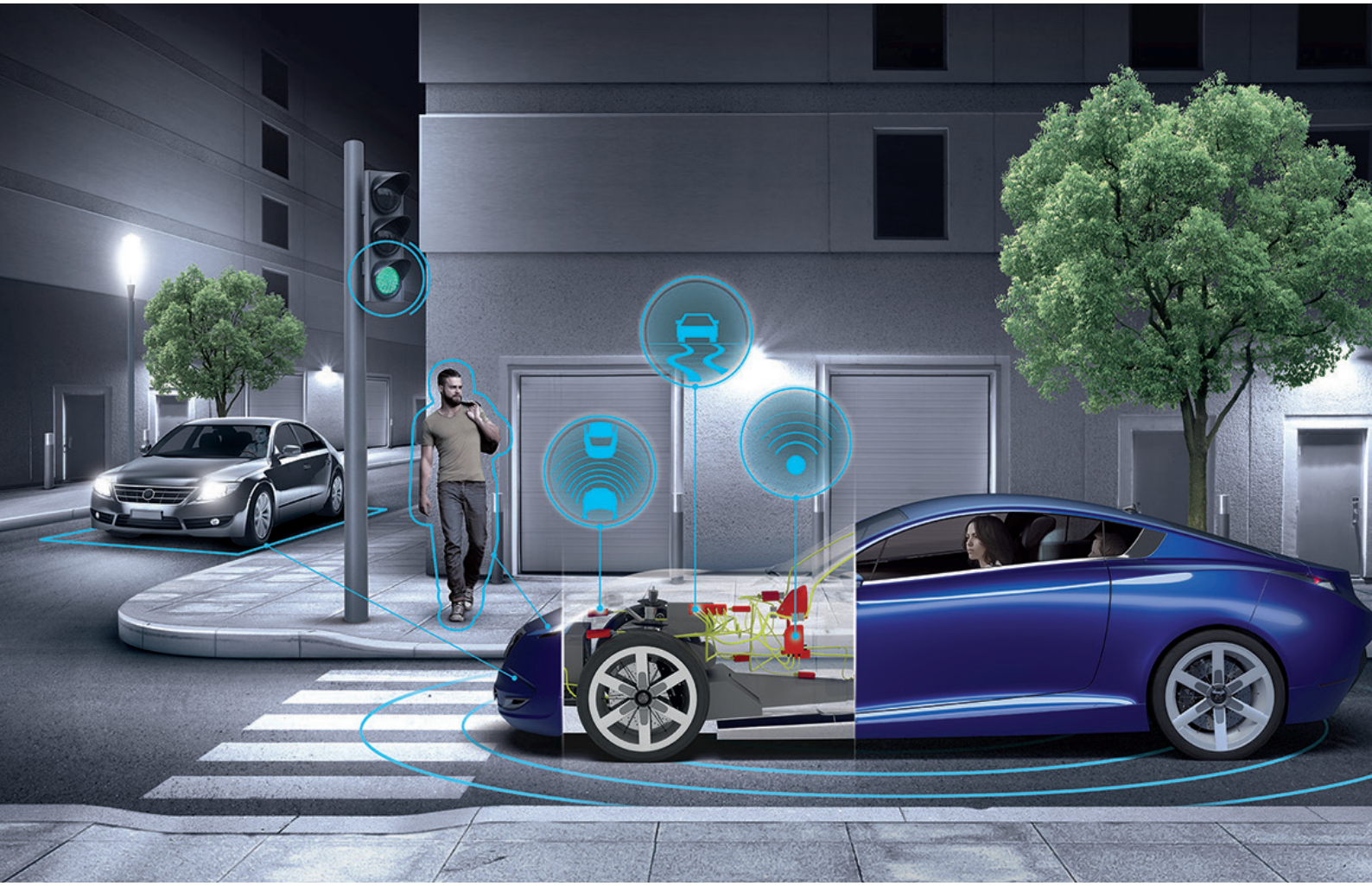
DASSAULT SYSTEMES

3DEXPERIENCE®

TRANSPORTATION & MOBILITY

SMART, SAFE AND CONNECTED

Design, validate, deliver the intelligent vehicle experience



INNOVATE WHILE IMPROVING PERFORMANCE AND SAFETY

No industry can escape the hyperconnected revolution that is re-inventing the way people and objects interact. The automotive industry is riding this wave as carmakers compete to deliver vehicles that feature their latest innovations to capture consumers' attention and business. As the Internet of Things continues to grow, companies are now inventing alternative transportation solutions that take advantage of intelligent city services to provide people with the best mobility experiences. The key to their success? Pioneering technology.

Smart, Safe and Connected Industry Solution Experience based on the **3D**EXPERIENCE® platform delivers innovative technology that supports end-to-end digital continuity between the multiple disciplines involved in conceptual design and embedded electronics and software development of the intelligent car. Carmakers cans address vehicle development using a systems engineering approach to manage the complex task of making cars smarter, safer and more efficient. With Dassault Systèmes' **Smart, Safe and Connected**, you too can invent new mobility experiences for your consumers.

IMPROVE AGILITY

Deciding which innovative ideas to pursue requires time-consuming iterations to validate their technical and business feasibility. While physical prototyping is often the solution many companies choose, it is neither cost-effective nor fast. Business sustainability requires delivering innovations at a sustained pace. Validating concepts early can help companies accelerate development while reducing their costs.

With **Smart, Safe and Connected**, designers and engineers can rapidly model and test their ideas at the conceptual stage using model-based systems engineering methods in a virtual environment before proceeding with detail design. They can simulate the way multi-disciplinary features interact, enabling early detection of potential conflicts that discovered at a later stage, can delay projects and drive up costs. This improves stakeholders' agility and the ability to rapidly choose concepts that make the most business sense.

IMPROVE COLLABORATION

Developing the complex systems that comprise today's automobile involves combining the expertise of multiple disciplines. Yet many of them often work in silos, which prevents the free flow of ideas and the ability to detect design conflicts early. Automotive manufacturers have much to gain by allowing their resources, often dispersed around the world, to access and work on a unique data referential.

With **Smart, Safe and Connected**, multi-disciplinary teams have access to the **3D**EXPERIENCE platform, which contains the latest, most up-to-date project information. Stakeholders collaborate in real time synchronizing their efforts and benefitting from each other's advice as they try out new ideas and test them in context. Moving forward together boosts innovation, improves engineering productivity and reduces time to market while improving product quality and reliability.

INCREASE TRACEABILITY FOR COMPLIANCE AND REUSE

Maintaining a database of record throughout a car's development cycle is essential for future maintenance and repairs, compliance with safety standards, and to accelerate new product development. Carmakers need to ensure traceability to satisfy their various obligations related to passenger security and product quality.

With **Smart, Safe and Connected** all data and development history are recorded on the **3D**EXPERIENCE platform from requirements to implemented hardware and software components. This is especially valuable for smart vehicles that

rely on embedded software and electronics as they need to satisfy the ISO26262 functional safety standard for automotive electronic systems throughout their development lifecycle. When defects or changes are detected, engineers can trace back through the development process to rapidly identify and modify impacted software, electrical or mechatronic components. Moreover, **Smart, Safe and Connected's** modular approach to design facilitates the reuse of approved designs in new projects helping to reduce cycle times and the risk of introducing errors.

KEY CAPABILITIES & BENEFITS:

- Full digital continuity from concept to compliance
- Capitalizes hardware and software modules and intellectual property, which helps avoid costly redos
- Better collaboration leads to higher quality, more innovation and mitigates late-stage errors
- Improves compliance with ISO 26262 safety standard
- Protects your investment as open **3D**EXPERIENCE platform enables information exchange with industry-leading solutions and formats such as Matlab Simulink®, AUTOSAR, MODELICA and Functional Mock-up Interface (FMI).

For more information, please visit:
www.3ds.com/industries/transportation-mobility/

Our **3D**EXPERIENCE® platform powers our brand applications, serving 12 industries, and provides a rich portfolio of industry solution experiences.

Dassault Systèmes, the **3D**EXPERIENCE® Company, provides business and people with virtual universes to imagine sustainable innovations. Its world-leading solutions transform the way products are designed, produced, and supported. Dassault Systèmes' collaborative solutions foster social innovation, expanding possibilities for the virtual world to improve the real world. The group brings value to over 210,000 customers of all sizes in all industries in more than 140 countries. For more information, visit **www.3ds.com**.

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