

ALTRAN IN AUTOMOTIVE

EMPOWERING THE NEXT GENERATION OF CARS



Automotive market challenges

VEHICLE DEVELOPMENT EFFICIENCY

By 2020, the partial digitization of the R&D and manufacturing value chain could increase OEMs' profitability by more than **10%**

AUTONOMOUS DRIVING REVOLUTION

In 2030, **15%** of all new cars sold will be fully autonomous with self-learning AI, leading to more cyber vulnerabilities and a growing complexity for electronic architecture



MOBILITY AS A SERVICE

The value of shared mobility will reach **\$1,500bn in 2030**, versus \$90bn in 2017, growing at a CAGR of **24%**

FACTORY OF THE FUTURE

Automotive Industrial IoT spending is expected to increase from \$12.3bn in 2015 to \$36.7bn in 2025, growing at a CAGR of 11.5%

GREEN MOBILITY ACCELERATION

Electric vehicles will account for **48%** of vehicles sold in 2030, compared to 2% in 2017, with increasingly strict CO₂ emissions regulations driving sales

Snapshot of Altran in Automotive

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GLOBAL PARTNER SERVING LEADING CAR PLAYERS WITH MORE THAN 7,800 AUTOMOTIVE SPECIALISTS

Technological expertise and deep understanding of Product engineering and Manufacturing processes for OEMs and Tiers1

POSITIONING IN 3 STRATEGIC DOMAINS

- Autonomous driving/Connectivity
- Electrification
- Complete vehicle development

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LEVERAGING HORIZONTAL CAPABILITIES FOR AUTOMOTIVE USE CASES

Capabilities from Semiconductors & Electronics, Software & Internet and Communications for Automotive use cases

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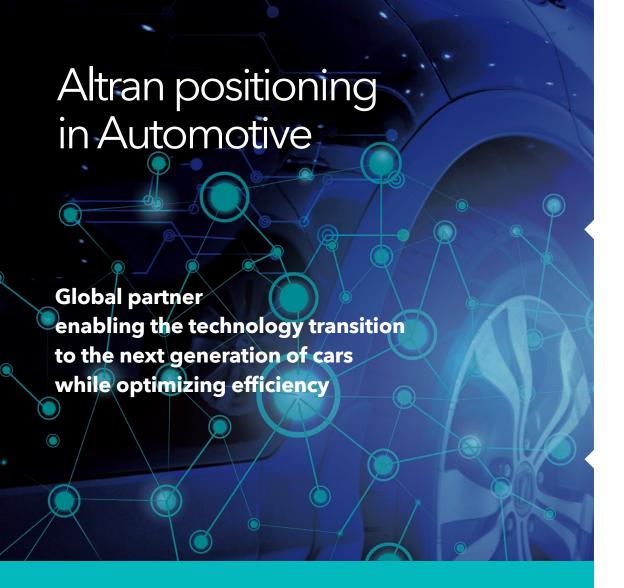
END-TO-END HIGH VALUE OFFERING AROUND NEXT GEN CARS

Unique complete offering from Autonomous Driving / ADAS, Artificial Intelligence, Connectivity, HMI, Digital services, and Electric/Electronic systems/architectures

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TRANSFORMATIONAL APPROACH FOR ENGINEERING EFFICIENCY

Ability to generate significant efficiency in vehicle development including managed service outsourcing, to optimize legacy activities, notably from Body In White engineering to complete vehicle development



Did you know?

frog creates **design**and user experience
strategy for the next
era of mobility - from
new ownership
models to digital
interfaces

Altran plays a key role in **3D printed cars** innovative production process, thanks to its partner, Divergent

AUTONOMOUS DRIVING & CONNECTIVITY

ELECTRIFICATION

COMPLETE VEHICLE DEVELOPMENT

Co-Innovation and Integration of Autonomous Driving & Connectivity features E-mobility solutions

From Style & Car Design to Manufacturing set-up

- HMI Concept & Design (UX/UI)
- Digital Services / Apps
- Autonomous Driving / ADAS
- Al / Machine Learning
- Connectivity V2X / 5G
- Electric/Electronic systems and architectures (Design, Testing, Integration & Prototyping)
- Cybersecurity & Functional Safety

- Vehicle mission profile analysis
- Electric & Hybrid Architectures
- Concept & Design
- System integration / Prototyping
- Testing / Simulation
- Performance Improvement / Calibration
- Homologation

- Class A Surfacing
- Body, Interiors & Trims
- Lighting
- Powertrain
- Digital Mock Up / Prototyping
- Testing
- Passive Safety
- Manufacturing 4.0

Altran has a facility dedicated to leading-edge **automotive style and design**

Altran is the world leader for airbag testing systems, with virtual and physical simulation



ABOUT ALTRAN

Altran ranks as the undisputed global leader in Engineering and R&D services (ER&D), following its acquisition of Aricent. The company offers clients an unmatched value proposition to address their transformation and innovation needs. Altran works alongside its clients, from initial concept through industrialization, to invent the products and services of tomorrow. For over 30 years, the company has provided expertise in aerospace, automotive, defense, energy, finance, life sciences, railway and telecommunications. The Aricent acquisition extends this leadership to semiconductors, digital experience and design innovation. Combined, Altran and Aricent generated revenues of €2.9 billion in 2017, with some 45,000 employees in more than 30 countries.

