Capgemini engineering

Advanced Driver Assistance Systems & Autonomous Driving (ADAS/AD)

Accelerating the Autonomous journey





A self-driving vehicle revolution

Mobility is transforming the Automotive Industry

- On-demand and alternative consumer transportation needs represent a vast automotive shift
- New mobility services mean to re-invent existing business models
- Autonomy will generate revenue of more than \$60 billion before the next decade

Autonomous vehicle adoption will be sequential

- A gradual introduction of multiple, inter-related safety technologies and functions
- Feature by feature, these technologies add new capabilities for safer vehicles
- New ADAS features are already a differentiating factor
- Introducing new features increases the pressure on time to market and costs

Achieving trust at the right cost is one of the hardest challenges facing automotive players

- An enormous number of test scenarios are needed to achieve the required level of confidence
- Scale and complexity of data processing, pipeline and infrastructure is non-linear and keeps on increasing
- The spiraling cost of adapting the systems to numerous vehicle variants is a challenge for OEMs and Tier-1 suppliers that are struggling to achieve substantial savings on development costs
- Achieving predictable time-to-market and ensuring deadlines are respected for validation will be a challenge
- Adopting new emerging technologies requiring specific skills will be an issue in a tough labor market



Our offering

Validation of driving automation systems is becoming a crucial challenge for OEMs and tiers, with the rocketing complexity and new safety regulations. In addition, the complete development becomes data driven process. Capgemini engineering provides **global and fully automated V&V platform**, and a **full training journey solution thanks to its Global training Center** to upskill and train engineers. We support as well **function development**, on turnkey mode and as an integrator partner.

Function Development

We develop functions in Turnkey (L1 & L2+) or aligned with core and non-Core strategy from the customer.

Our team leverages our experience from Capgemini Engineering's internal Research & Innovation (R&I) program.

Driving Automation System Validation

Our DASV platform is an integrated end-to-end solution for ADAS and AD validation. From data production to homologation support, through XiL validation.

Associated with an hybrid cloud infrastructure, DASV allows the automate of the activities for V&V.

Global Training Center

As new emerging autonomous-driving technologies require dedicated skills, we provide a full training path to upskill team members.

Training is remote, provided by a world-class team of experts, and includes dedicated case studies and examples.

Why us?

Capgemini engineering steers and delivers your ADAS Digital verification and validation journey with a network of experts in ADAS V&V, ADAS function development, Connectivity V&V, and AI & Data Management.

A global footprint and strong local presence

- 25,000 automotive consultants, of which 1,000 are dedicated to ADAS/AD
- 1,045 experts covering ADAS V&V and functional development
- Data collection campaigns operated in more than 60 countries
- 5 automotive test centers in Europe and North America

Modular Platform architecture

A global team with knowledge of the specific market, at the state of the art, fostering internal R&I and University collaborations.

Integration, Automation and AI

The high level of automation achieved associated with advanced AI allows to accelerate the developments, with the Tool chain integration, and a scalable infrastructure to cope with large amounts of data.

An expertise training path at a worldwide level

- 25+ international experts provide a full training path such as ADAS architecture trends, Safety regulation, and MBSE.
- With an average of 15+ years of experience, the training team gather all our expertise.

Success Stories



On-the-road sensor data collected in 60+ countries across Europe, North America, and Asia complying to country regulations.



Data storage and improvement of data quality in the context of highly autonomous driving homologation file production.



Design and deployment of V&V test system leveraging automation to ensure fast and reliable ground truth data, improved measurement, and automated result evaluation.



Industrialization of data on the client's on-premises and cloud platform to handle larger amounts of data while enabling high productivity and data safety.

About Capgemini Engineering

Capgemini Engineering combines, under one brand, a unique set of strengths from across the Capgemini Group: the world leading engineering and R&D services of Altran – acquired by Capgemini in 2020 - and Capgemini's digital manufacturing expertise. With broad industry knowledge and cutting-edge technologies in digital and software, Capgemini Engineering supports the convergence of the physical and digital worlds. It helps its clients unleash the potential of R&D, a key component of accelerating their journey towards Intelligent Industry. Capgemini Engineering has more than 52,000 engineer and scientist team members in over 30 countries across sectors including aeronautics, space and defense, automotive, railway, communications, energy, life sciences, semiconductors, software & internet and consumer products.

Learn more about us at

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