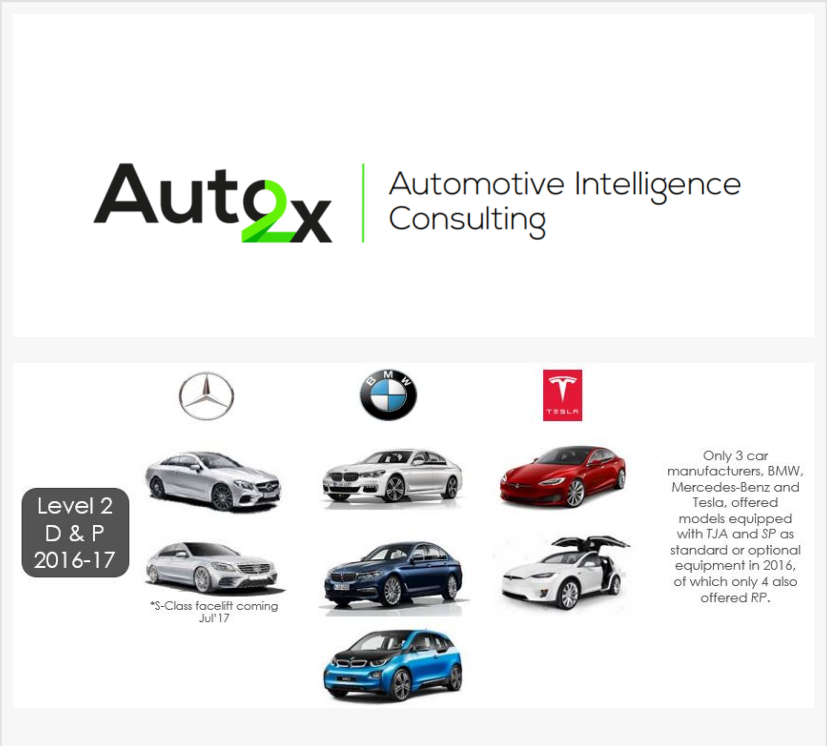
Drivers to legally take their "eyes-off" the road from 2017: Autonomous Driving Roadmap report

2017 will see the introduction of technology that allows “eyes-off” the road. Learn about leading OEMs' ADAS & Autonomous Driving roadmap and strategies



LONDON, UNITED KINGDOM, June 7, 2017 /EINPresswire.com/ -- Auto2x's latest report examines the current status of autonomous vehicle deployment including the ADAS&AD portfolio of 24 leading OEMs, the engineering and regulatory challenges for high levels of autonomy and the business models to overcome and monetise them. Finally, we provide a technological roadmap for the introduction of L2-5 by leading OEM and a penetration forecast of cars equipped with different levels of autonomy over the next decade.

Download our free whitepaper on the status of Autonomous Driving in 2016 here: http://auto2xtech.com/go/adlpfreep1/

> Discover when leading carmakers will launch capabilities of L2-L5, segmented into Driving and Parking features, and who will win the autonomous race”
>
> *Auto2x*

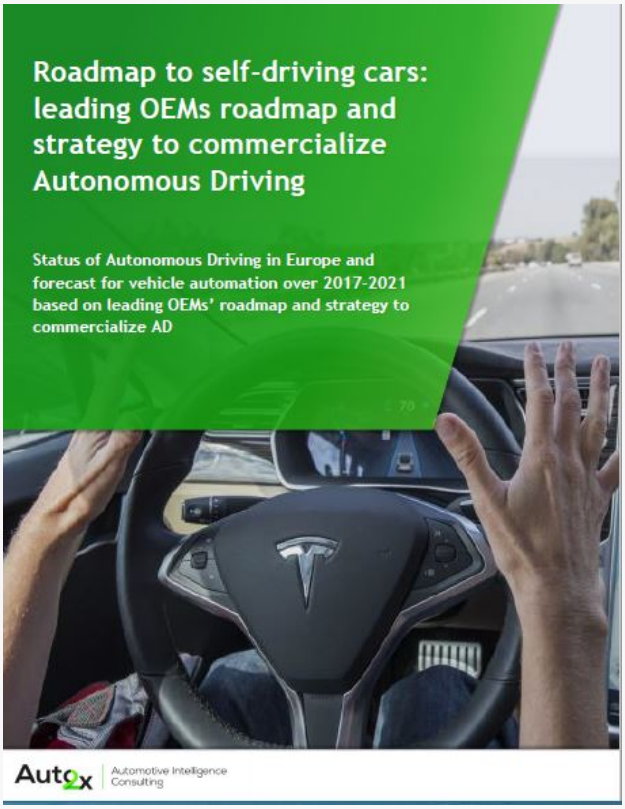
Read about our key findings:

- 2017 will see the introduction of technology that allows “eyes-off” the road

2017 is the year of transition from Partially-automated cars (SAE L2), where drivers are in complete control with ADAS providing assistance for safety and convenience, to Conditionally-automated ones (L3) which can take over the driving and monitoring task under specific scenarios allowing the driver to be ‘’distracted”. However, in L3 the driver will still be the ultimate back-up and must remain ‘’available” to regain control within a few seconds of the takeover request.
L3 deployment is still subject to regional regulatory approval. What’s more, the regulatory and legal framework differs across leading car markets. This could result in lack of harmonisation and restrict standardisation, adversely impacting the adoption of higher levels of vehicle autonomy.

- Germany legalises Level 3 automated driving giving a head-start to German carmakers

Germany wants to be in the forefront of Autonomous driving (testing and deployment) ahead of the U.S. therefore it has amended the German Road Traffic Act (Straßenverkehrsgesetz, StVG) to allow domestic car manufacturers, which already are closer to L3, to deploy their systems in the market. Deployment of L3 in Germany would be possible under the new framework, but also provided that systems are compliant with UNECE regulations and data recording for accident reconstruction and claims.



The transition from driver-centric regulation to Automated Driving Systems is necessary for the deployment of higher levels of vehicle autonomy. Amendment in international regulations and national traffic laws will soon give the green light for deployment but will there be regional inconsistences between what's legal?

- Another OEM skips L3 as the debate for Conditionally-Unsupervised driving continues

Volvo is now added to the list of carmakers pulling-away from deployment of Level 3 with the CEO characterizing the handover of vehicle control as unsafe. The company claims they will only offer (completely) unsupervised autonomous mode when it's safe, for which it will assume full responsibility. This comes a few months away from the first-ever L3-equipped car from Audi.

- Different OEM strategies over Supervised vs Conditionally and Completely-Unsupervised driving

This development is another demonstration of the different approaches leading car manufacturers are following to commercialize automated driving amid the engineering, regulatory and consumer adoption hurdles. The industry is currently facing a debate over supervised (L0-2) vs (optionally) unsupervised driving (L4-5) and whether an "intermediate" level (L3), where the system can monitor but drivers have to takeover in case of an emergency is safe and adds value to owners. Thus, the commercialisation of L3 is uncertain given the high cost/benefit ratio, i.e. the marginal impact on safety and driver convenience from L2 comparing to the massive engineering challenge.

- Partially-automated (L2) model offerings expand to the compact segment

At the same time, more carmakers are introducing L2 parking and driving capabilities and expand L2 feature availability across their model range. What's more important though is that L2 expands from premium large cars to the compact car segment. This breakthrough is another indicator that ADAS are no longer the privilege of flagships, premium large cars and luxurious SUVs since regulations, consumer requirements and competition drive fitment of ADAS.

- Aggressive marketing contributes to customer confusion and leads to misuse and/or abuse of L2

L2's purpose is to assist the driver but not substitute him by offering longitudinal and lateral assistance. L2 Traffic Jam Assists and Cruise Assists may allow a few seconds of hands-free driving but do not have the system capability and redundancy to monitor the road-hence your hands-on-the-steering-wheel are mandatory (from both technological and legal perspective) despite what you here

from some aggressive marketing campaigns.

- Engineering challenges to drive demand for sensors, SW and collaborations

A Mobileye executive has recently described the challenge and complexity of launching SAE L4, i.e. chauffer driving and valet parking features among others, with putting a man on the moon. Higher level of vehicle automation will require augmented sensor set, new architecture and innovative validation methods among others. This will drive demand for sensors, supercomputers, high precision maps etc. It will also drive further collaboration between OEMs and Tier 1s-2s for the development of AD platforms-be it L4 for car sharing or not.

- New business models arise in the new era of smart mobility

Carmakers, Tier-1s and new-entrants, such as tech giants Apple and Google (Waymo) and MNOs compete in the autonomous vehicle race to establish a winning portfolio or just remain competitive. L4/fully-automated vehicles will revolutionise transportation and mobility leading to what we call Intelligent Mobility. This includes the rising car-sharing and ride-sharing businesses as well as new vehicle ownership models in the Passenger Car market. We analyse opportunities across the supply chain.

For a detailed Table of Contents or Sample Pages contact us on: (+44) (0)20 3286 4562, info@auto2xtech.com or visit auto2xtech.com.

Auto2x, Automotive Intelligence & Consulting
Auto2x
(+44) (0)20 3286 4562
email us here
