

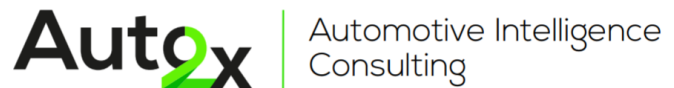
# Software-Defined Vehicles: Software driving Disruption for Digital Autos

*Cars are becoming Software-Centric which creates opportunities and challenges in development cost, complexity, security and monetization.*

LONDON, UNITED KINGDOM, February 28, 2025 /EINPresswire.com/ -- Auto2x publishes new report "[Software-Defined Vehicles](#): Software driving

Disruption for Digital Autos" to decode

the big opportunities in Software-Defined vehicles, from the promising technologies and top innovation clusters to leading players and favourable markets.



## WHAT THIS REPORT DELIVERS



Software-Defined Vehicles (SDV) describe a new generation of vehicles which feature advanced technologies to be continuously updated on demand and enable true connected and automated driving."

*Auto2x*

1) The digitization of the Automotive Industry demands a shift to SDVs, but challenges remain

Learn about top innovation clusters across major technological building blocks of SDVs:

- EE Architectures: Assess the roadmaps of leading carmakers and suppliers in the development of centralized architectures and their partnerships;
- CarOS: Learn about the rising adoption of Google's Android Automotive OS and the competitive offerings from MBUX and other players;
- Open-source software development: In May 2023,

General Motors joined the Eclipse Foundation, an open source software foundation, and announced its own software protocol called "uProtocol" to streamline software creation

- Cloud: the emergence of automotive cloud as a key enabler for cloud-based ADAS development, development of offerings from carmakers and the role of Microsoft, Amazon among others;
- Over-the-Air-updates (OTA), and the opportunities for features-on-demand;
- Digital Twin

- Artificial Intelligence, e.g. AI voice Assistants

2) Understand the progress of regulation and how to overcome the challenges of continuous homologation and certification of new vehicle features through OTA updates;

3) Assess the strategies and capabilities of leading carmakers, suppliers and emerging start-ups;

4) Discover forecasts of adoption and scenarios for the evolution of competition.

## KEY FINDINGS

1) Cars are becoming Software-Centric which creates opportunities and challenges in development cost, complexity, security and monetization.

One of the biggest challenges facing today's vehicle networks is the vast amount of data that is produced—and will exponentially increase as vehicles become increasingly autonomous and connected and are required to process vehicle-to-vehicle and vehicle-to-infrastructure communications.

[SDV](#) create new opportunities to reduce the complexity from the rise of features and variants, accelerate feature development time, streamline costs and enable SOTA updates on demand.

Lower software development cost is key for faster and more efficient automotive development. Re-usable software platforms are needed to lower development costs.

Finally, Android Automotive OS will become the mainstream operating system enabling carmakers to offer intuitive HMI and 3rd parties to integrate connected services.

2) Built in-house software systems for in-car and vehicle-related services to develop differentiating software parts.

In an effort to replicate Tesla's successful model of developing in-house SW systems, traditional car makers like VW, opt to develop their own in-house SW platform. This approach promotes harmonized integration of future embedded hardware and software systems but needs a large number of vehicles in order to mitigate the increasing per/unit development cost.

VW has recently announced that it will develop its own standard software platform and will boost the in-house share of software development, in order to achieve a 60 per cent in-house software production by 2025.

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