

Technology Evolution: ADAS

Case Study

Technology Evolution

Client	Global leader in driveline, chassis, mechatronics, etc.
Industry	Automotive and other industries
Products	Powertrain, braking, chassis components

Engagement Scope

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Solutions/Technology Landscape

- Identification and detailed analysis of the ADAS technology clusters covering patents, technical papers, footprint in the area of ADAS or autonomy systems in autonomous vehicles
- Following constituents was covered in this section –
 - ADAS functionalities and applications
 - Vision Systems (Sensor suite)
 - Perception systems
 - Others

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Trends Analysis

- This section identified current and future trends for different categories of solutions such as vision systems, sensor suites, ADAS functionalities, etc.
- Following constituents was covered in this section –
 - ADAS functionalities drivers and restraints
 - Factors enabling mass deployment of ADAS features
 - Recent activities (technological innovations, IP filings, collaborations, etc.)

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Conclusions & Recommendations

- Holistic picture for technology and industry outlook
- Intensity map of the activity identified via patents, technical papers, footprint in the area of ADAS functionalities and autonomous vehicles technologies
- Key players in terms of activity and product innovation

Context

- Tier-I player are continuously developing innovative ADAS technologies and enhancing their product's capabilities, and, OEMs are using different approaches to provide same functionalities
- Client wanted to understand the landscape of ADAS technologies, and, how they are expected to evolve for future functionalities in medium to long term

Key Business Questions

- What are different current and potential technologies for ADAS functionalities with different levels of autonomy?
- What are the different technology and industry trends which may impact future ADAS offerings?
- Who are the key startups / new-entrants in for ADAS/Vehicle autonomy?

Technology Evolution

Research Methodology

Secondary Research

- Desk research (web and scientific journals) enabled the study in identifying various ADAS technologies and functionalities which are in concept/commercial stage

Patent Research

- Conducted patent searches based on relevant keywords and classifications to identify ADAS associated inventions, applications, key players, etc.

Primary Research

- Conducted 15+ telephonic interviews with suppliers, industry experts, etc. to assess the viability of key ADAS technologies in future mobility

Benefits to Client

- Client was presented a detailed analysis of the ADAS technology clusters vis-à-vis worldwide intensity map based on the patents, technical papers, etc.
- The intelligence also outlined the entire ecosystem covering intelligence pertaining to the players operating in this domain
- Client got a clear picture for active regions and entities which assisted them in their product development strategies in Automated Driving / ADAS systems

Sample Analysis

1 Solutions/Technology Landscape

The screenshot displays a complex flowchart on the left side, illustrating the relationship between various ADAS technologies. On the right side, there is a data table with multiple columns, likely representing different technology categories and their associated metrics or data points.

2 Trends Analysis

The screenshot shows a bar chart with a clear upward trend, indicating growth in a specific area. Below the chart, there is a flowchart titled "Evolution to Unlock 'Spine of the Road'", which maps out the progression of various technologies and their integration into a broader system.

3 Conclusions & Recommendations

The screenshot features a world map on the left, highlighting key geographical regions. To the right, there is a text box containing several bullet points and paragraphs, providing a summary of the study's findings and offering strategic recommendations for the client.

Thank you

North America

55 Madison Ave, Suite 400
Morristown, NJ 07960
USA
T: +1 212 835 1590

Europe

328-334 Graadt van Roggenweg
4th Floor, Utrecht, 3531 AH
Netherlands
T: +31 30 298 2108

United Kingdom

5 Chancery Lane
London EC4A 1BL
United Kingdom
T: +44 207 406 7548

Asia Pacific

Millennium Business Park
Sector 3, Building # 4, Mahape
Navi Mumbai 400 710
India
T: +91 22 6772 5700