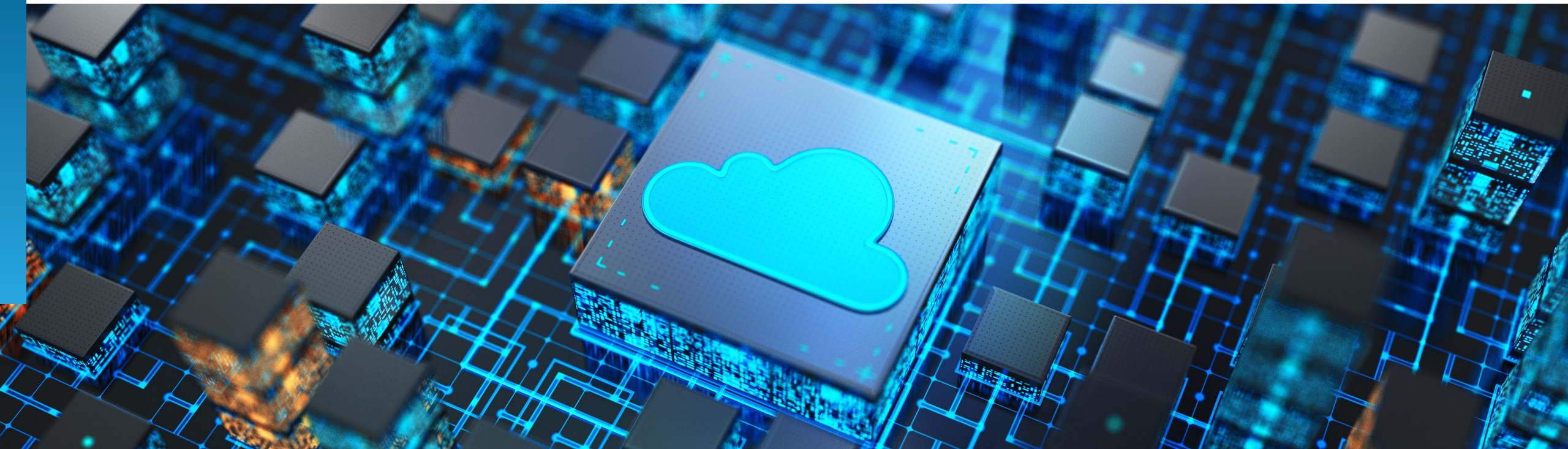


ACES Mobility Engineering Services – Provider Compendium 2023

October 2023: Complimentary Abstract / Table of Contents



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- ▶ SAP Services
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Contents

1. Introduction and overview	5
• Research methodology	6
• Key sources of proprietary information	7
• Background and introduction of research	8
• Scope of ACES Automotive engineering services	9
2. ACES Automotive Engineering Services PEAK Matrix® characteristics	10
• Summary of the key message	11
• PEAK Matrix framework	12
• Everest Group PEAK Matrix for ACES Automotive Engineering Services	15
• Everest Group PEAK Matrix for ACES Automotive Engineering Services – subsegment specific	16
• Star performers	19
• Characteristics of Leaders, Major Contenders, and Aspirants	20
• Provider capability summary dashboard	21
3. Enterprise sourcing considerations	25
• Leaders	25
– Alten	26
– Capgemini	31
– HCLTech	36
– KPIT	41
– LTTS	46
– TCS	51
– Wipro	57

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Contents

• Major Contenders	62
– Akkodis	63
– AVL	69
– Bertrandt	74
– Cognizant	79
– Cyient	84
– DXC Technology	89
– FEV	94
– FPT	99
– IAV	104
– Infosys	109
– NTT DATA	114
– Tata Elxsi	119
– Tata Technologies	125
– Tech Mahindra	130
– T-Systems	135
• Aspirants	140
– Onward Technologies	141
– Sasken	146
– Semcon	152
– Sigma Software	158
4. Appendix	163
– Glossary	164
– Research calendar	165

Introduction

The automotive industry is at an inflection point, where global sustainability concerns, increasing consumer demands, and rapid technological advancements have coalesced to propel rapid growth. In this dynamic landscape, the focus is shifting from conventional mobility solutions to a more captivating and immersive automotive experience. Automotive enterprises are now eagerly hopping on to this transformative paradigm, embracing the idea of enhancing customer experience and redefining the future of mobility. Some of the major areas of investment include:

- **Autonomy Advancements:** Investments in L3 to L5 autonomous technologies, intelligent adaptive cruise controls, safety systems, and sensor fusion tech to transform driving experiences
- **Connected Ecosystems:** Connectivity and data management are forging powerful collaborations between automotive players and players from diverse verticals such as fintech, insurance, technology, and telecommunication to bring in several after-sales services
- **Software-Centricity:** With the emergence of software-defined vehicles, there is an increased level of investments in software development and partnerships with technology players
- **Electrification Imperative:** The need to address environmental concerns and stringent governmental regulations has accelerated the investments in electric, hybrid, and fuel cell technologies

This research, the fourth edition of Everest Group's [ACES Automotive Engineering Services PEAK Matrix® Assessment 2023](#), evaluates 26 engineering service providers, features them on the PEAK Matrix®, and shares insights into enterprise sourcing considerations. The study is based on RFI responses from service providers, interactions with their automotive engineering leadership, client reference checks, and ongoing analysis of the engineering services market.

The report assesses the following 26 leading engineering service providers featured on the ACES Automotive Engineering Services PEAK Matrix®:

- **Leaders:** Alten, Capgemini, HCLTech, KPIT, LTTS, TCS, and Wipro
- **Major Contenders:** Akkodis, AVL, Bertrandt, Cognizant, Cyient, DXC Technology, FEV, FPT, IAV, Infosys, NTT DATA, Tata Elxsi, Tata Technologies, Tech Mahindra, and T-Systems
- **Aspirants:** Onward Technologies, Sasken, Semcon, and Sigma Software

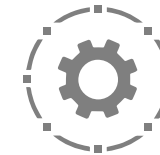
Scope of this report



Geography
Global



Providers
26 leading broad-based and pureplay service providers



Services
Automotive engineering services

Overview and abbreviated summary of key messages

This report examines the global ACES engineering services landscape and assesses 26 service providers. It focuses on service providers' capabilities and market impact in helping enterprises undergoing the transformation toward ACES and SDVs. It also draws insights on the trends being followed by service providers in ACES automotive engineering services.

Some of the findings in this report, among others, are:

Service provider position and delivery capability

- Service providers can be categorized into leaders, major contenders, and aspirants on a capability-market-share matrix for ACES engineering services
- Alten, Capgemini, HCLTech, KPIT, LTTS, TCS, and Wipro are the current leaders in the global ACES engineering services market. However, several service providers are emerging as major contenders
- Akkodis and Cognizant have emerged as the Star Performers owing to the compelling growth momentum showcased by them – both in terms of revenue and differentiated capabilities

Service provider characteristics

- The Leaders segment comprises a mix of pure-plays, and well-established IT-heritage firms that have excelled in providing comprehensive automotive engineering services across multiple disciplines. They differentiate themselves by offering a comprehensive value proposition that spans emerging domains, service elements, and traditional automotive solutions. They leverage assets and partnerships effectively, particularly in software and embedded systems development, resulting in a diverse portfolio of offerings in autonomous, connected, and electric mobility. Leaders make significant investments in Intellectual Property (IP), Centers of Excellence (CoEs), employee certifications, and labs, showcasing their expertise in ADAS, sensor fusion, infotainment, V2X communications, battery management systems and software
- The Major Contenders segment comprises a mix of IT-heritage firms, pure-play engineering firms with a broader industry focus, and players that have a dedicated focus on automotive engineering services. While these players have made significant investments in building automotive engineering expertise, their service portfolio is not as extensive as that of Leaders (in terms of presence across the value chain elements, geographies, or service functions). They are also focusing on expanding their delivery presence and leveraging partnerships with hyperscalers, technology firms, and academia to strengthen their presence in automotive engineering services
- Aspirants possess strong capabilities in specific technology areas and value chain elements; however, their global presence and ability to serve projects with wider scopes is limited. They are making focused investments for enhancing their solutions portfolio, improving service enablement capabilities, and expanding their footprint and client base

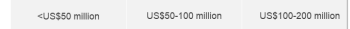
The ACES Mobility engineering service provider compendium report has profiles and buyer case studies for 26 leading engineering service providers

ACES Mobility Engineering Services – Provider Compendium 2023

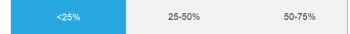
Provider 1 profile Overview (page 1 of 5)

Vision and strategy
The automotive industry is undergoing a paradigm shift. The new world of automot sustainable, and smart mobility solutions. Provider 1's vision for the future of mobil people-centered era of personalized travel and it aims to create an automotive ind ensuring sustainability and leveraging innovation and emerging technologies for a Provider 1, with its capabilities, assets, and experience, is positioned to assist aut automotive journey, including commercial vehicle players. Its offering portfolio is fo sustainability, software, and supply chain enhancement. Its positioning in the engi domain ensures its ability to cater to the changing needs of automotive entities an This is achieved within the framework of the larger group portfolio, allowing Provid safety, sustainability, and intelligence in the mobility sector, aligning with industry c affordable, ever-smarter, and software-driven mobility ecosystem.

ACES automotive engineering services revenue (January 2022 – December 20



YoY growth rate in ACES automotive engineering services revenue (January



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ACES Mobility Engineering Services – Provider Compendium 2023

Provider 1 profile Case studies (page 2 of 5)

Case study 1 Delivered a safe Advanced driver-assistance sys Autonomous Driving (AD) experience

Business challenge
The client is a prominent automotive company focused on the efficient de functions within a complex ecosystem and a multi-disciplinary team enviro objective was to verify and validate functions, fine-tune sensor calibration, and software deployments. This encompassed considerations for system in addition to compliance with legislative and certification standards.

Solution and impact
Provider 1 adopted a flexible and agile plan to onboard skilled ADAS exp covering the complete AD and ADAS life cycle. It deployed a solution bas from data production through tests, simulation, and homologation to supp transformation journey towards ADAS Verification & Validation (V&V). It re processes to accelerate the approach, optimizing the team scalability.

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Provider 1 profile Solutions (page 3 of 5)

Proprietary solutions (representative list)

Solution	Details
Solution 1	This driver assistance system when approaching slower-mo
Solution 2	Provider 1 brings power and s data (camera, Light Detection
Solution 3	This AD center solution gather disruptions of the autonomous engineering
Solution 4	This solution encompasses co and safety
Solution 5	Provider 1 provides an end-to- and managing data sets for tre
Solution 6	Provider 1 helps companies to digital transformation approach
Solution 7	Provider 1's proprietary transfe and software), while maintaini (IV) system

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Provider 1 profile Investments and partnerships (page 4 of 5)

Recent ACES automotive engineering services investments/acquisitions (r

Investment/Target	Description
Investment 1	Lab dedicated to the infotainm
Investment 2	Center for Internet of Things (I
Investment 3	With software-driven transfor
Investment 4	Automotive Engineering Cente technology, and engineering R
Investment 5	Help clients in their transfor

Key alliances and partnerships (representative list)

Company	Details
Company 1	Created XL2, a joint venture w
Company 2	Partnership aims to create sa
Company 3	Being part of the XYZ, a worki of the future
Company 4	Being part of XYZ special inter corresponding open-source rel
Company 5	Signed a multi-year partnershi to the energy transition
Company 6	Forged alliances with technol best-in-class solutions and cor

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Provider 1 profile Everest Group assessment – Leader (page 5 of 5)

Measure of capability: Low High

Market impact				Vision & capability				
Market adoption	Portfolio mix	Value delivered	Overall	Vision and strategy	Scope of services offered	Innovation and investments	Delivery footprint	Overall
●	●	●	●	●	●	●	●	●

Strengths

- Provider 1 has made strategic investments to enhance its ACES automotive engineering capabilities in the form of IP, labs, CoEs, and partnerships, especially in the areas of autonomous and connected subsegments
- Customers appreciate Provider 1's technical expertise and domain knowledge in the ACES automotive engineering space, and highlight that these have been decision-making factors in choosing it for current engagements
- Provider 1 has a balanced client portfolio consisting of small, midsized, and large enterprises
- It has a strong presence in all phases of the automotive engineering services value chain, from product design to product support, while maintaining a balanced presence across software, embedded, and mechanical engineering service functions
- Provider 1 showcases a good mix of pricing models in both traditional as well as emerging models such as outcome-based pricing

Limitations

- While Provider 1 has a strong foothold in areas of autonomous and connected subsegments, it could focus on building more capabilities in the form of IP and CoEs to capitalize on the growing electric subsegment market
- Provider 1's client portfolio is majority skewed toward Europe, with lower focus on North America and APAC
- While Provider 1 has focused on investments in the form of IP, labs, and partnerships, it has a relatively lower coverage of investments in employee certifications specific to ACES subdomains (such as power electronics, V2X, and HMI) and other quality standard certifications
- While Provider 1 engages primarily through onshore and nearshore delivery centers, it could consider expanding its offshore delivery presence to optimize costs and access a larger talent pool

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Research calendar

Engineering Research and Development

Published Planned Current release

Reports title	Release date
Acing the Art of Platform-driven Growth: Software Product Engineering Services PEAK Matrix® Assessment 2023	December 2022
Software Product Engineering Services – Provider Compendium 2023	February 2023
Unleashing the Era of Phygital Manufacturing – Industry 4.0 State of the Market 2023	February 2023
Engineering R&D (ER&D) Outlook for 2023	February 2023
Engineering Services CXO Insights: Key Issues Report 2023	April 2023
5G Engineering Services PEAK Matrix® Assessment 2023: The Next Frontier in the Hyperconnected Era	June 2023
5G Engineering Services – Provider Compendium 2023	July 2023
Unlocking the Growth Frontier through Software Product Innovation	August 2023
ACES Mobility Automotive Engineering Services PEAK Matrix® Assessment 2023	September 2023
Navigating the Enterprise Adoption of Generative AI	September 2023
Engineering Services Top 50 2023	September 2023
ACES Mobility Engineering Services – Provider Compendium 2023	October 2023
Trends in the Top 200 Engineering Research & Development (ER&D) Enterprises 2023	Q4 2023
Navigating the Path to Digital Transformation: An Enterprise Guide to Undertaking the Platform Adoption Journey	Q4 2023
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