

# **Digital Vortex in The Mobility World – Automotive Engineering Services PEAK Matrix™ Assessment 2017 and Profiles Compendium**

Engineering Services

Market Report – December 2017: Complimentary Abstract / Table of Contents

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## Custom research capabilities

- Benchmarking | Pricing, delivery model, skill portfolio
- Peer analysis | Scope, sourcing models, locations
- Locations | Cost, skills, sustainability, portfolio – plus a tracking tool
- Tracking services | Service providers, locations, risk
- Other | Market intelligence, service provider capabilities, technologies, contract assessment

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# Background and scope of the research

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## Background of the research

- The automotive industry is poised to change more in the next 5 to 10 years than it did in the last 50 years. Vehicles are set to become increasingly intelligent, inter-connected, and instrumented. Pervasiveness of digital technologies, rise of non-traditional competitors, and growing popularity of intermediated distribution networks is challenging the long-established traditional business model of Original Equipment Manufacturers (OEM's) and is probing them to innovate in order to respond to the evolving customer demands
- The rapid pace of digitalization is transforming the hardware-driven automotive sector to a software and solutions-focused industry, augmented by consumers' evolving expectations of digital lifestyle and demands for new and innovative services. The digital disruption is not a one-time event, it is rather a journey in which auto manufacturers, service providers, technology majors, and parts suppliers are gearing up for the rising market demand and making large scale investments in resources, partners, solutions, and products
- As automakers evolve their product development ideology from a “one-size-fits-all” approach to an “on-demand hyper-personalized” approach, service providers that can indulge in more consulting-led problem solving and partner with these enterprises on their business transformation journey, will see more success in the marketplace
- In this research, we analyze the capabilities of 19 leading Automotive Engineering (AE) service providers. These providers were mapped on the [Everest Group PEAK Matrix™](#), which is a composite index of a range of distinct metrics related to each provider's capability and market success. In this report, we focus on:
  - The landscape of engineering service providers in automotive industry outsourcing
  - Assessment of the service providers on a number of capability-related dimensions
  - Characteristics of Leaders, Major Contenders, and Aspirants on the Everest Group automotive engineering services PEAK Matrix™
  - Implications for automotive OEM's, tier-1 suppliers and service providers

## Scope of this report

- **Services:** Automotive Engineering Services (AES)
- **Geography:** Global
- **Service providers:** Includes 19 leading automotive engineering service providers

# Overview and abbreviated summary of key messages (page 1 of 2)

This report examines the global 2017 automotive engineering service provider landscape and the effect of digital disruption in automotive market. It focuses on service provider position and growth in the engineering and digital operations services in the automotive market, changing market dynamics and emerging service provider trends, assessment of service provider delivery capabilities, and service provider profiles. The report further examines distinctive characteristics of service provider clusters

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

## PEAK Matrix characteristics

- Leaders are characterized by their global delivery model, extensive consulting capabilities, and good breadth & depth of solutions/services portfolio that has helped them become strategic business partners to their automotive clients
- Major Contenders lag behind Leaders in terms of breadth of solution portfolio, scope, and domain expertise; few have a mature solutions portfolio and dedicated teams while few have limited offerings but a focused talent pool with expertise in selective technologies
- Aspirants have limited coverage and investments are mostly focused on select areas within a particular segment of the automotive value chain

## Changing market dynamics

- As automotive OEMs accelerate their digital transformation journey, they are prioritizing investments in the evolving connected vehicles and advanced analytics space
- Security and data integrity landscape is intensifying due to emerging risks such as ethics & cyberthreats
- There is an increased focus on engine efficiency and fuel economy improvement initiatives
- IoT and additive manufacturing investments are helping build this competitive advantage for lead steers

## Emerging service provider trends

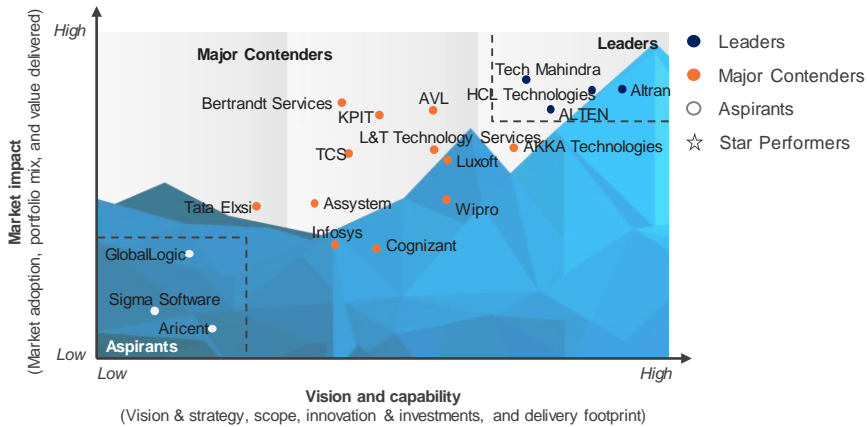
- Service providers are investing in next-generation technologies, new service capabilities such as as-a-service based offerings, Centre-of-Excellence (CoE), and innovation centers
- Large and established service providers are facing stiff competition from their smaller peers as they are proactively delivering innovation using automation, ML, and AI

## Service provider delivery capability

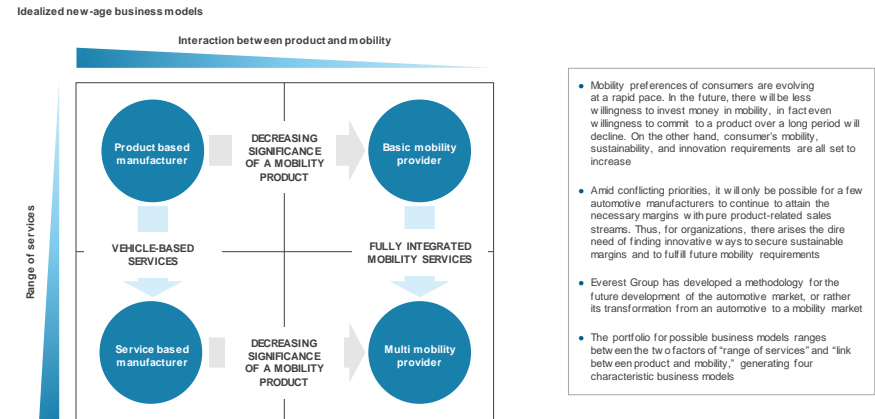
- Automotive engineering service providers can be categorized into leaders, major contenders, and niche players on a capability-market-share matrix
- Altran, ALTEN, HCL Technologies are the current leaders in the automotive engineering services market. However, several service providers such as AKKA Technologies, KPIT, L&T Technologies, and Luxoft are emerging as major contenders

# This study offers a deep dive into the key aspects of the mobility landscape & engineering services in the automotive industry

## Everest Group PEAK Matrix™ for automotive ES



## Future of Mobility landscape



## Enterprise view of the market

### What are service providers doing right ?

- ✓ Enhancing engineering and domain expertise
- ✓ Building flexibility in commercial models
- ✓ Expanding collaborations and partnerships to provide comprehensive offerings
- ✓ Increasing agility and speed in addressing client demands

### Where can service providers improve?

- ✗ Offer expertise rather than products
- ✗ Proactive investments for innovation
- ✗ Transition from outsourcing providers to transformation partners
- ✗ Provide thought leadership to customers

## Key challenges

Key challenge	Description	Issues
Complex partner ecosystem	Convergence of ecosystem partners along with a shared vision is required to realize the true connected and shared mobility benefits	<ul style="list-style-type: none"> <li>• Complicated ecosystem of partners requires coordinated efforts across the value chain</li> <li>• Overwhelming options of solutions, platforms, and devices necessitates introduction of technology-agnostic solutions</li> </ul>
Change management	Digital adoption requires an organization-wide initiative with contribution from various stakeholders to make adoption a success	<ul style="list-style-type: none"> <li>• Requires management buy-in and application of change management principles for organization-wide adoption</li> <li>• Requires significant investment in talent, infrastructure, and processes</li> </ul>
Security	Security and regulatory compliance is a major impediment to enterprises for digital adoption and connecting the automobile core to the world	<ul style="list-style-type: none"> <li>• Privacy and security of customer data is a big concern</li> <li>• Interoperability and standardization conflicts with legacy systems</li> </ul>

Source: Everest Group (2017)



# This report has 19 service provider profiles

## Provider A | Automotive engineering services (page 1 of 3)

### Overview

#### Vision statement

AKKA Technologies aims to be the market leader in the automotive engineering services sector, offering turnkey engineering solutions to the world's leading automotive companies. Across the automotive value chain, the AKKA Group looks to achieve series maturity by taking into consideration the overall context, all of the neighboring components, interfaces, systems, as well as the tool-oriented design and production processes. Its main focus is on full vehicle development, powertrain solutions, and automotive electronics.

#### Strengths

- Strong horizontal portfolio with ability to offer an integrated services play through capabilities across design, development, testing and manufacturing services
- Leverages its manufacturing heritage to demonstrate engineering credentials
- Strong focus on building capabilities through partnerships (such as EADS IW, SNCF, Airbus, and France Telecom R&D) around digital themes

#### Areas of improvement

- Can consider to expand its capabilities on domain-specific platforms to offer better system integration expertise to its clients

#### Revenue by value chain element

Revenue contribution ■ (>30%) ■ (10-30%) ■ (<10%)



#### Revenue by geography



#### Summary of PEAK Matrix assessment

##### Vision and capability



Source: Everest Group (2017)

## Provider A | Automotive engineering services (page 2 of 3)

### Service offerings

#### Key proprietary solutions (representative list)

Solution	Details
CARLIB Technology	CARLIB is an electric car pool technology that focuses on designing an ultra-compact, fun vehicle for car-pooling with optimizations such as weight reduction and therefore greater autonomy
CO-FRIEND	It is a cognitive and flexible learning system that aims to optimize occupation of stop over zones in order to avoid saturation of air space and airport congestion. It operates on robust interpretation of extended real scenes by multi-sensors data fusion and technologies such as video-surveillance, video-tracking and artificial intelligence
LINK&GO	LINK&GO is a dual-mode, connected, urban, electric car technology that helps to drive the design choices for future vehicles while reducing the environmental impact of urban transport. This finds uses in autonomous
LINK IN CITY	LINK IN CITY is a concept as an autonomous driving platform for merging transport & demonstrates innovative, smart integration of city's data in terms of infrastructure, 3D not only enhances the vehicle autonomous driving but also provides a richer user exp
INGEOCLOUDS	INGEOCLOUDS is an innovative solution for the creation and sharing of environment access to a large volume of geological data, especially for the study and prevention o risk of landslides, and groundwater conditions
Autonomous technology solutions	AKKA technologies has an extensive know-how in automotive embedded systems as is the main partner for the development of ADAS, components and functions (current ultrasonic sensors)
Verification and Validation (VnV) solutions	AKKA Technologies has invested in state-of-the-art facilities and accredited pilots, on complexity of their clients' development projects. Some of the capabilities include test PROVEtech suite and vehicle function testing

Source: Everest Group (2017)

## Provider A | Automotive engineering services (page 3 of 3)

### Service investments

#### Key alliances/partnerships/M&As (representative list)

Investment name	Type of investment	Details
GIGATRONIK	March, 2017	To accelerate its development by consolidating its expertise in digital technologies and its Franco-German base to deploy/integrate its innovative solutions and services on a global scale. With this acquisition, AKKA Technologies reinforced its high value-added offer of innovative solutions and services assisting its customers in their transformation (Infotainment, digital technology and Internet of Things)
Private research centers	Partnerships	AKKA Technologies has strategically established partnerships with a number of private research and development centers such as EADS IW, SNCF, Airbus, Air-France Industrie, France Telecom R&D, SAGEM, Thales, Toulouse-Blagnac airport, and Softeam. This helps in advancing and testing the multi-segment engineering and implementation capabilities for clients

#### Other key investments (representative list)

Development	Details
Labs / special Infrastructure	AKKA Technologies has established various automated virtual test environments equipped with virtual tools and technologies that can be deployed in-house or in cloud. Some of these labs are IFFSTAR, LAAS-CNRS, IRIT, LIP6, INRIA, CEA, Ammines, etc. These labs focus on a variety of areas: <ul style="list-style-type: none"> <li>• Telematics, data analytics, remote control, connectivity and V2X</li> <li>• Embedded instrumentation and reference design engineering</li> </ul>
Trainings	AKKA Technologies has a great focus on learning and development of its talent base for ensuring continuous competency development. There are multiple programs designed to address training needs such as fresher training, technical training, behavioral training & management/leadership training
Research programs	AKKA research works with partners in the framework of French and European research programs. European programs: EU-FP7, LIFE, CIP, ITEA, ARTEMIS, etc. National programs: ANR, FUI, CIFRE grants, research agreements, Yvelines Departmental Council, etc.
Partnerships with Universities	AKKA Technologies has partnered with multiple universities such as Reading, Leeds, INPT, Helsinki, Dutsburg, Neuchatel, Toulouse II, Utrecht, Jerusalem, QMUL, and Hamburg. This helps to develop, nurture and sustain industry academia collaboration for research and development

Source: Everest Group (2017)

Source: Everest Group (2017)

# Research Calendar – Engineering Services

Published
  Planned
  Current release

## Flagship engineering services reports

### Release date

The Evolving Demand Paradigm in the Engineering and Research and Development (ER&D) Services Industry .....	October 2016
Top 20 Automotive Trailblazers: The Value Chain Disruptors .....	October 2017
Software Product Engineering Services – Service Provider Landscape with PEAK Matrix™ Assessment 2017 .....	December 2017
<b>Automotive Engineering Services – Service Provider Landscape with PEAK Matrix™ Assessment 2017 .....</b>	<b>December 2017</b>
Startups in Software Product Engineering – The DevOps enablers .....	Q4 2017

## Thematic engineering services reports

Innovation Beyond Borders – Global Talent Hotspots for Engineering Services and Research & Development (ER&D) .....	August 2016
In Pursuit of Product Excellence: Quality Management in the Engineering Services Industry .....	May 2017
Identifying the Right Partners for Quality Management in the Engineering Services Industry – Service Provider Landscape .....	May 2017
Designing Products in the age of Human-Machine Nexus for the Global Connected Ecosystem .....	June 2017
Talent Landscape in the GIC Automotive Engineering Market in India .....	July 2017

Note: For a list of all Engineering Services reports published by us, please refer to our [website page](#)

# Additional Engineering Services research references

The following documents are recommended for additional insight into the topic covered in this report. The recommended documents either provide additional details on the topic or complementary content that may be of interest

1. **Top 20 Automotive Trailblazers: The Value Chain Disruptors** ([EGR-2017-15-R-2359](#)); 2017. This report provides an assessment of digital startups primarily in the automotive landscape. It contains detailed profiles of Top 20 startups encompassing data analytics, autonomous driving, connected vehicles, and electrification areas. Each startup profile provides a comprehensive picture of its technology capabilities, market growth, and perceived investors' confidence. The research also provides a holistic overview of investments, acquisitions, and partnerships in the automotive landscape.
2. **Designing Products in the age of Human-Machine Nexus for the Global Connected Ecosystem** ([EGR-2017-15-R-2231](#)); 2017. This report explores the ecosystem-centered design thinking approach, and delves into its constituents, the underlying principles, and the impact on businesses. It also covers some of the current and prospective examples for ecosystem-based design thinking, and discusses the challenges that enterprises need to overcome for successfully implementing this approach.
3. **The Evolving Demand Paradigm in the Engineering and Research and Development (ER&D) Services Industry** ([EGR-2016-0-R-1977](#)); 2016. This report provides an overview of the ER&D services industry. It covers demand trends in the ER&D services industry across different industry verticals and global sourcing trends across major ER&D segments

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## About Everest Group

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