

Everest Group PEAK Matrix[®] for Industry 4.0 Service Providers 2020

Focus on HCL Technologies
October 2020



Background and introduction of the research

Industry 4.0 is the latest phase in the industrial revolution and a technology-intensive transformation of cyber and physical systems and their convergence. This transformation is characterized by advanced and modern themes of interconnectivity, digitalization, and automation and is made possible through technological developments in multiple fields, including Internet of Things (IoT), additive manufacturing, cloud computing, edge computing, analytics, robotics, cybersecurity, Artificial Intelligence (AI), and Machine Learning (ML). Enterprise adoption of Industry 4.0 is experiencing significant traction globally owing to the multitude of benefits that it brings for enterprises, including increased flexibility, visibility, quality, efficiency, and control. COVID-19 has further amplified the need for its adoption as it helps industrial setups enhance resilience.

Engineering service providers are playing a critical role in accelerating enterprise adoption of Industry 4.0 by offering a wide range of services in this domain. Industry 4.0 service offerings span four service functions, which broadly capture the Industry 4.0 services value chain:

- Consulting and design
- Development and Verification and Validation (V&V)
- Deployment and System Integration (SI)
- Managed services and support

This report examines the dynamics of global Industry 4.0 services and presents PEAK Matrix Assessments of 18 leading service providers associated with Industry 4.0 services. The report features these providers on five PEAK Matrix® Assessments, one for the overall Industry 4.0 services and one each for the four service functions mentioned above.

This document focuses on **HCL Technologies'** experience and capabilities in offering Industry 4.0 services and includes:

- HCL Technologies' position on the Industry 4.0 Services PEAK Matrix® Assessment 2020
- Detailed Industry 4.0 services profile for HCL Technologies

Scope of this report:



Geography
Global



Service providers
18 leading broad-based and pure-play engineering service providers



Services
Industry 4.0 services
Consulting and design |
Development and V&V
Deployment and SI | Managed
services and support

Industry 4.0 Services PEAK Matrix® characteristics

Leaders:

Accenture, Capgemini, Cognizant, HCL Technologies, and TCS

- The Leaders for Industry 4.0 services comprise broad-based IT-heritage giants that have developed a strong suite of comprehensive capabilities spanning all four Industry 4.0 service functions
- Service providers in the Leaders segment have a strong and well-balanced presence across all service functions, and they are recognized for their ability to offer large-scale engagements leveraging their robust delivery capabilities across the globe
- These players lay extensive focus on targeting long-term and high-value deals involving multiple service functions and have a strong portfolio of clients across all major geographies and verticals
- The Leaders are going beyond standard pricing models, which enables them to strike deeper relationships and offer greater value in engagements. These models include risk-reward, transaction-based, license-based subscription, outcome-based, and a hybrid of standard and emerging pricing models

Major Contenders:

Atos, Cyient, eInfochips, L&T Technology Services, Mphasis, Persistent Systems, Sasken Technologies, Tech Mahindra, UST Global, and Wipro

- The Major Contenders comprise both IT-heritage and pure-play engineering service providers
- These players have exhibited high growth in this space and have built meaningful capabilities to deliver Industry 4.0 services. They have developed leading offerings and competencies across select service functions; however, their service portfolios are not as well-rounded and comprehensive across all the service functions as those of the Leaders
- The service providers in this segment are making continued investments for enhancing their capabilities and presence and for bridging capability gaps across service functions that have hitherto not been a major focus, thus positioning themselves as strong challengers for Leaders

Aspirants:

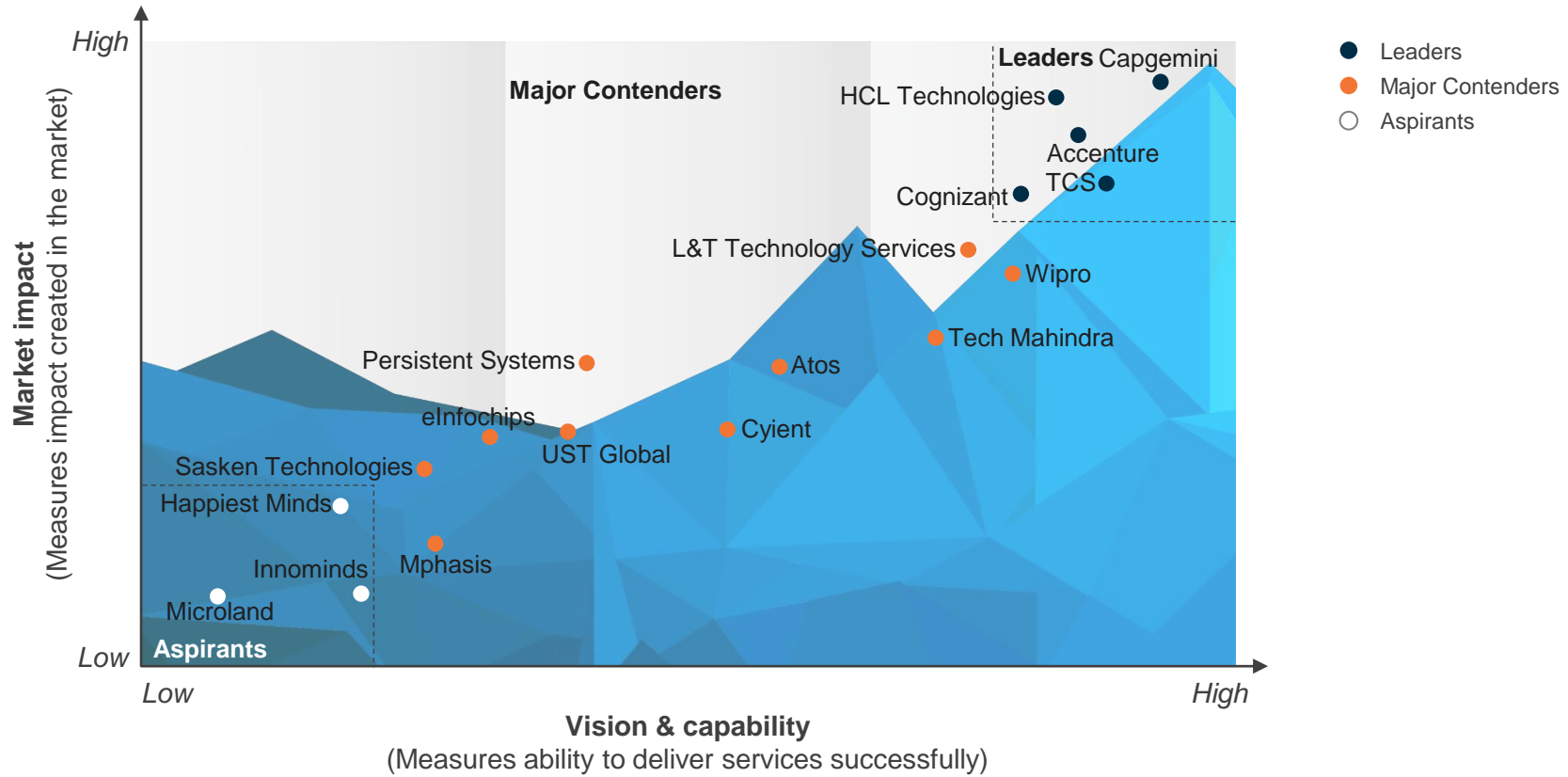
Happiest Minds, Innominds, and Microland

- Aspirants are at a relatively nascent/initial stage in terms of their Industry 4.0 service offerings, which are not a key revenue generator for these players
- These firms are primarily focused on one or two service functions and are expanding and building broader capabilities to enhance their play in more service functions

Everest Group PEAK Matrix®

Industry 4.0 Services PEAK Matrix® Assessment 2020 | HCL Technologies positioned as Leader

Everest Group Industry 4.0 Services PEAK Matrix® Assessment 2020^{1,2}



1 PEAK Matrix specific to Industry 4.0 services

2 Assessment of Capgemini is inclusive of Altran (part of Capgemini) and reflects their joint capabilities and market impact

Source: Everest Group (2020)

HCL Technologies | Industry 4.0 services profile (page 1 of 3)

Overview

Vision & strategy: HCL aims to enable global enterprises make the best out of their industry 4.0 initiatives through a consulting-led, technology-driven, and implementation-focused approach. The firm leverages its Xpand 4.0 framework to develop a blueprint of transformation that is aligned to customers' business objectives. It helps enterprises in connecting, optimizing, and creating value for varied stakeholders from siloed engineering, manufacturing, and aftersales functions.

Measure of capability: ● High 🕒 Low

| 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

- Possesses strong domain understanding and provides vital business recommendations to support and enhance client's decision-making abilities
- Market-recognized project management and organizational change management capabilities
- Well-rounded portfolio of offerings across service functions and a significant presence in offering managed services and support for Industry 4.0

Areas of improvement

- Needs to further enhance the resource quality in engagements and improve coordination and interpersonal interactions within the team
- Can consider enhancing the presence in nearshore locations to further improve client proximity and better balance the delivery mix as compared to other Leaders

| | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|
| Industry 4.0 services revenue <US\$100 million US\$100-US\$250 million US\$250-US\$500 million >US\$500 million | | | | Revenue by geography High (>20%) Medium (10-20%) Low (<10%) North America Europe APAC South America MEA ROW | | | | | |
| Revenue by service function High (>30%) Medium (15-30%) Low (<15%) Consulting & design Development & V&V Deployment & system integration Managed services & support | | | | Revenue by vertical High (>20%) Medium (10-20%) Low (<10%) Automotive Aerospace & defense Manufacturing & mining Healthcare, life sciences, & medical devices High-tech CPG/FMCG & food processing Energy & utilities Others | | | | | |

HCL Technologies | Industry 4.0 services profile (page 2 of 3)

Case studies and solutions

Case study 1 **Helped a global industrial firm in factory assessments for its smart factory vision**

Business challenge
 The client was looking for a standardized roadmap for manufacturing planning and execution, supply chain, and IIOT. The firm had plants and manufacturing facilities across the globe and each plant had its own set of systems with disparate levels of maturity.

Solution and impact
 HCL performed a techno-functional assessment based on its Smart Factory Assessment Framework, including functional assessment of requirements at each plant, assessment of technological gaps and available solutions, creation of business case and global rollout plan to improve end-to-end operations, and recommended tools for MES, supply chain collaboration, and smart factory deployment. HCL built a graded roadmap covering three business models – make-to-stock, make-to-order and engineer-to-order to improve operational efficiency and reduce cost.

Case study 2 **Assisted a leading commercial kitchen equipment manufacturer in delivering digital transformation**

Business challenge
 The client wanted to create a central digital strategy for connected and integrated kitchen solutions for its heterogeneous equipment portfolio, in keeping up with increasing market demand but was facing challenges due to limited in-house resources.

Solution and impact
 HCL provided a platform-based digital strategy and performed the implementation covering all product brands. HCL delivered the entire stack including equipment connectivity with edge, central cloud platform, and analytics engine to the applications platform with mobile and web apps. This led to the creation of a new revenue stream through digital services subscription and enhanced productivity and efficiency of kitchen operations through increased equipment uptime, reduction in maintenance and warranty costs, increased food quality and integrity, and remote monitoring including over-the-air (OTA) upgrades.

| Proprietary digital solutions (representative list) | |
|---|--|
| Solution | Details |
| Connected Assets in Regulatory Environment (CARE) | A customizable springboard software platform that provides a unified approach to medical device management, mobility, big data, eco-system integration, patient information management, and cybersecurity for a regulated environment |
| ECCO Digital Thread Platform | An enterprise collaboration and content platform to improve data visibility and traceability using digital thread |
| Glovious AR | An android-based AR application for visualization, built using ARCore, which helps place virtual 3D models in the real world |
| MPMAccelerate | A packaged solution for accelerated adoption of manufacturing process management functionalities |
| PICASSO™ | A Platform-framework for Intelligent, Connected, Autonomous and Secure Service Offerings (PICASSO) to build and implement digital service platforms on top of a connected ecosystem of assets |
| Realtime Manufacturing Insights (RMI) | A continuous AI-/ML-based learning system that identifies opportunities for real-time OEE improvement from manufacturing operations systems |
| Track & Trace | A blockchain-integrated custom solution to track materials, assets, and resources for better visibility, traceability, and control over the supply chain process |
| Xpand 4.0 | An Industry 4.0 framework that enables enterprises to digitally and physically connect, collaborate, optimize, and create value from siloed enterprise functions (Innovation, Engineering, Manufacturing, Supply Chain, Information Technology, Procurement, Sales, and Aftermarket functions) to drive faster time to value |

HCL Technologies | Industry 4.0 services profile (page 3 of 3)

Investments and partnerships

Key alliances and partnership (representative list)

| Company | Details |
|---|---|
| AWS | A premier consulting partnership to build and provide enterprise cloud computing solutions on the AWS platform |
| Critical Manufacturing | A partnership that allows HCL Technologies to offer services, consulting, training, and aftermarket support to complex discrete industries |
| Dassault Systèmes, Siemens Digital Industries Software, PTC | A suite of multi-fold partnerships to help customers in their product development needs |
| iBASEt | A partnership to address the needs of businesses operating in highly regulated discrete manufacturing industries such as aerospace & defense and help them accelerate and scale digital manufacturing transformation, including connected factory processes |
| Materialise | A partnership that helps HCL utilize Materialise's technology to facilitate the production of metal parts through an integrated additive and subtractive machining workflow in a single software, while preserving the digital thread through CAD associativity |
| Microsoft | A 360-degree partnership that involves strategic joint investments to help customers accelerate their digital transformation journey |

Recent Industry 4.0 services investments/acquisitions (representative list)

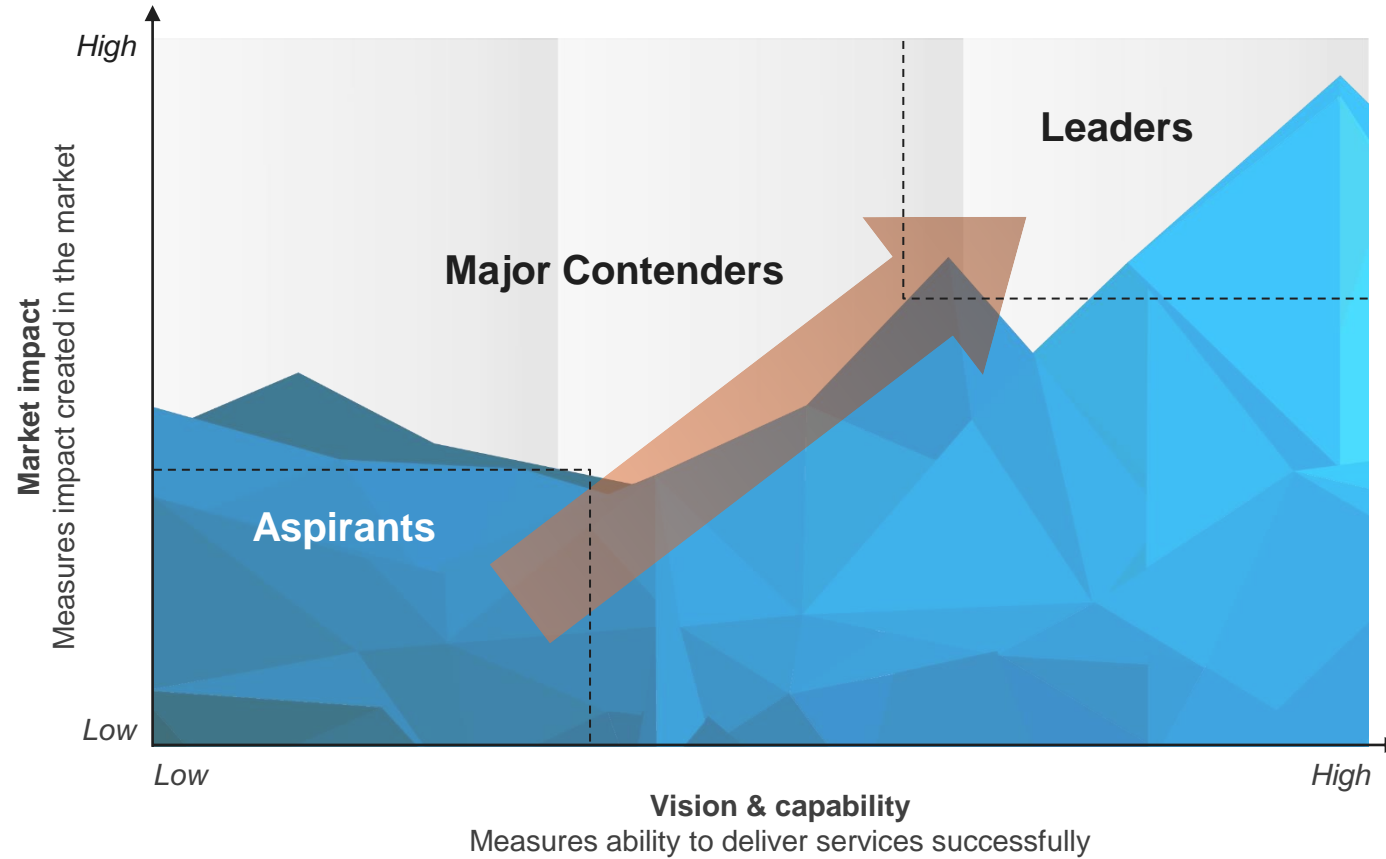
| Investment/target | Details |
|-------------------------------|--|
| Dedicated technology CoEs | Investments in all key Industry 4.0 technologies through dedicated CoEs in IoT, 3D printing, cloud, AI/ML & analytics, robotics, cybersecurity, industrial design (AR/VR), digital thread and digital twins, and manufacturing engineering, as well as core engineering capabilities |
| Geometric | An acquisition that has helped create a robust portfolio of end-to-end capabilities across the entire value chain, besides augmenting consulting and nearshore delivery capabilities |
| H&D International | An acquisition that helped HCL attain significant in-country front-office and delivery capabilities and has enhanced the company's domain expertise in Industry 4.0 |
| Investments in labs | HCL has invested over US\$50 million in test labs and infrastructure such as manufacturing engineering labs, mechanical labs, cloud labs, 3D printing labs, IoT collaboration, and cybersecurity fusion centers |
| IPs and Solution accelerators | HCL has invested in building a set of IPs and solution accelerators to accelerate various product development processes |
| Strong Bridge Envision | An acquisition to enhance HCL's digital consulting offerings including digital strategy development, agile program management, business transformation, and organizational change management |

Source: Everest Group (2020)

Appendix

Everest Group PEAK Matrix® is a proprietary framework for assessment of market impact and vision & capability

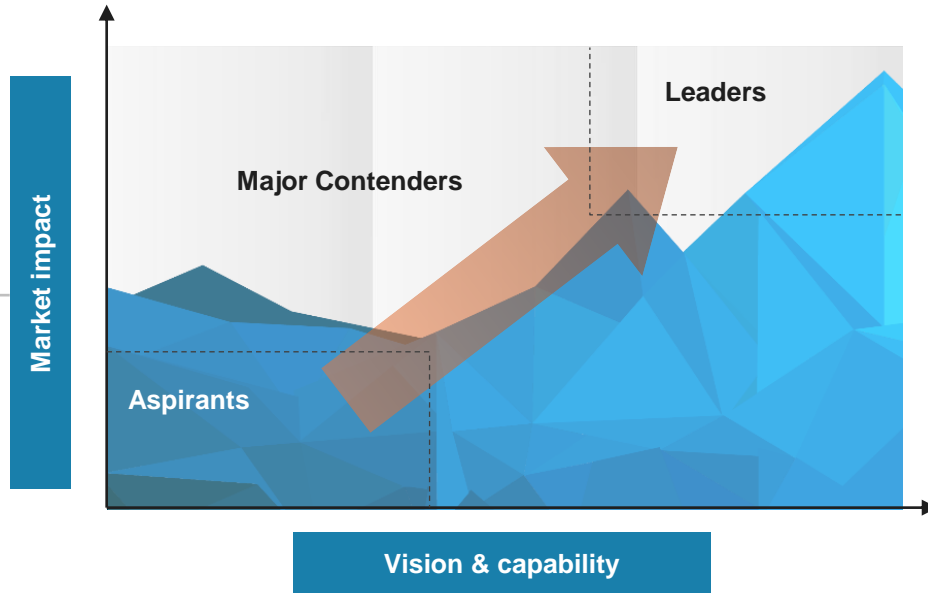
Everest Group PEAK Matrix



Services PEAK Matrix® evaluation dimensions

Measures impact created in the market – captured through three subdimensions

- Market adoption**
Number of clients, revenue base, YOY growth, new client wins, prominent pricing models, and deal value
- Portfolio mix**
Diversity of client/revenue base across geographies, verticals and type of clients
- Value delivered**
Value delivered to the client based on customer feedback and transformational impact



Measures ability to deliver services successfully. This is captured through four subdimensions

- Vision and strategy**
Vision for the client and itself; future roadmap and strategy
- Scope of services offered**
Depth and breadth of services portfolio across service subsegments/processes
- Innovation and investments**
Innovation and investment in the enabling areas, e.g., technology IP, industry/domain knowledge, alliances, M&A, and service enablement
- Delivery footprint**
Delivery footprint and global sourcing mix

FAQs

Does the PEAK Matrix® assessment incorporate any subjective criteria?

Everest Group's PEAK Matrix assessment adopts an unbiased and fact-based approach (leveraging service provider / technology vendor RFIs and Everest Group's proprietary databases containing providers' deals and operational capability information). In addition, these results are validated / fine-tuned based on our market experience, buyer interaction, and provider/vendor briefings

Is being a “Major Contender” or “Aspirant” on the PEAK Matrix, an unfavorable outcome?

No. The PEAK Matrix highlights and positions only the best-in-class service providers / technology vendors in a particular space. There are a number of providers from the broader universe that are assessed and do not make it to the PEAK Matrix at all. Therefore, being represented on the PEAK Matrix is itself a favorable recognition

What other aspects of PEAK Matrix assessment are relevant to buyers and providers besides the “PEAK Matrix position”?

A PEAK Matrix position is only one aspect of Everest Group's overall assessment. In addition to assigning a “Leader”, “Major Contender,” or “Aspirant” title, Everest Group highlights the distinctive capabilities and unique attributes of all the PEAK Matrix providers assessed in its report. The detailed metric-level assessment and associated commentary is helpful for buyers in selecting particular providers/vendors for their specific requirements. It also helps providers/vendors showcase their strengths in specific areas

What are the incentives for buyers and providers to participate/provide input to PEAK Matrix research?

- Participation incentives for buyers include a summary of key findings from the PEAK Matrix assessment
- Participation incentives for providers/vendors include adequate representation and recognition of their capabilities/success in the market place, and a copy of their own “profile” that is published by Everest Group as part of the “compendium of PEAK Matrix providers” profiles

What is the process for a service provider / technology vendor to leverage their PEAK Matrix positioning and/or “Star Performer” status ?

- Providers/vendors can use their PEAK Matrix positioning or “Star Performer” rating in multiple ways including:
 - Issue a press release declaring their positioning. See [citation policies](#)
 - Customized PEAK Matrix profile for circulation (with clients, prospects, etc.)
 - Quotes from Everest Group analysts could be disseminated to the media
 - Leverage PEAK Matrix branding across communications (e-mail signatures, marketing brochures, credential packs, client presentations, etc.)
- The provider must obtain the requisite licensing and distribution rights for the above activities through an agreement with the designated POC at Everest Group.

Does the PEAK Matrix evaluation criteria change over a period of time?

PEAK Matrix assessments are designed to serve present and future needs of the enterprises. Given the dynamic nature of the global services market and rampant disruption, the assessment criteria are realigned as and when needed to reflect the current market reality as well as serve the future expectations of enterprises



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