Everest Group PEAK Matrix® for Digital Product Engineering Service Providers 2022

Focus on Capgemini
March 2022
The recent advances in technology have led to a massive digital wave in the engineering world, wherein physical products are being enhanced by making them smarter, connected, autonomous, and intelligent. To cater to the evolving customer needs and provide a rich customer experience, enterprises are making significant investments in the next-generation technologies such as AI/ML, AR/VR, 5G, blockchain, IoT, and cybersecurity, which serve as the backbone of digital products. However, the rapid pace of innovation and the need to stay ahead of market trends in this current space necessitates the need to establish a compelling partnership ecosystem that can help enterprises accelerate time-to-market. To cater to this growing demand from enterprises, engineering service providers are actively enhancing their capabilities and offerings to unlock the potential of data from connected products, integrate multiple technologies for better user experience, and ultimately engineer technologically sound digital products.

This research is the first edition of Everest Group’s Digital Product Engineering Services PEAK Matrix® Assessment 2022, wherein we have presented an assessment of 30 engineering service providers featured on the PEAK Matrix, along with the sourcing considerations for enterprises. This assessment is based on the RFI responses from service providers, interactions with their digital product engineering leadership, client reference checks, and ongoing analysis of the engineering services market.

The full report includes the profiles of the following 30 leading engineering service providers featured on the Digital Product Engineering PEAK Matrix:

- **Leaders:** Accenture, Capgemini, Cognizant, HCL Technologies, Infosys, LTTS, TCS, and Wipro
- **Major Contenders:** Bosch Global Software Technologies (BGSW), Cyient, eInfochips, Experion Technologies, GlobalLogic, GS Lab, Happiest Minds, HARMAN DTS, Infinite Computer Solutions, Innominds, Itransition, Mindtree, Mphasis, Sasken, SoftServe, Tech Mahindra, and VVDN Technologies
- **Aspirants:** Accolite Digital, Aspire Systems, Daffodil Software, e-Zest, and Sonata Software
Digital Product Engineering Services PEAK Matrix® characteristics

Leaders:
Accenture, Capgemini, Cognizant, HCL Technologies, Infosys, LTTS, TCS, and Wipro
- The Leaders segment comprises both pure-play as well as broad-based IT-heritage firms that have developed dominant capabilities in offering multidisciplinary digital product engineering services
- Leaders have been able to successfully grow organically by forming partnerships with hardware, embedded, and software vendors and making investments in developing labs, CoEs, and innovation centers in next-generation technologies such as AR/VR, IoT, analytics, AI/ML, 5G, semiconductor engineering, and ASIC design
- Their global delivery presence has helped them achieve the right balance of client proximity and cost advantages in servicing large-scale engagements
- These players are extensively focusing on putting their skin in the game and shifting beyond traditional pricing models toward emerging commercial constructs such as outcome-based, revenue sharing, and risk-reward models

Major Contenders:
Bosch Global Software Technologies (BGSW), Cyient, eInfochips, Experion Technologies, GlobalLogic, GS Lab, Happiest Minds, HARMAN DTS, Infinite Computer Solutions, Innominds, Intransition, Mindtree, Mphasis, Sasken, SoftServe, Tech Mahindra, and VVDN Technologies
- Major Contenders also comprise both IT-heritage firms as well as pure-play engineering service providers
- These players are actively making investments in establishing labs and CoEs and developing IPs and solutions in areas such as AI/ML, testing, analytics, IoT, cybersecurity, and embedded systems
- Although they have strong partnerships across software engineering, some of their strategic partnerships/alliances in the areas of embedded and hardware engineering are yet to mature at par with the Leaders

Aspirants:
Accolite Digital, Aspire Systems, Daffodil Software, e-Zest, and Sonata Software
- Aspirants offer capabilities mostly across the software engineering part of the value chain and have a limited portfolio of services required to develop hardware and embedded products
- Although Aspirants are actively training and upskilling their engineering talent, their investments in labs, CoEs, partnerships, and IPs are limited
Everest Group PEAK Matrix®
Digital Product Engineering Services PEAK Matrix® Assessment 2022 | Capgemini positioned as Leader

Everest Group Digital Product Engineering Services PEAK Matrix® Assessment 20221,2,3

1 Assessments for SoftServe and Tech Mahindra exclude service provider inputs and are based on Everest Group’s proprietary Transaction Intelligence (TI) database, service provider public disclosures, and Everest Group’s interaction with buyers.

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

3 While GlobalLogic was acquired by Hitachi in July 2021, the assessment has been conducted on the basis of GlobalLogic as a stand-alone entity only.

Source: Everest Group (2022)
Capgemini | digital product engineering services profile (page 1 of 4)

Everest Group assessment – Leader

Strengths
- Capgemini established strong partnerships/alliances and entered industry consortia to bolster capabilities in areas such as semiconductor, cloud engineering, 5G, telematics, ADAS, and IoT
- It has made dedicated investments to set up labs and CoEs in areas such as analytics, verification & validation, infotainment systems, embedded engineering, Software Defined Networking (SDN) / Network Functions Virtualization (NFV), cybersecurity, sensors, and electronics engineering
- It possesses the experience of engaging via emerging commercial constructs such as outcome-based, revenue sharing, and risk-reward models

Limitations
- While it has a strong customer presence in the North American and European regions, it can look to drive more business from the growing Latin America region as well
- There is scope for Capgemini to cater to enterprises from high growth digital product engineering relevant industry verticals such as consumer electronics and industrial products

<table>
<thead>
<tr>
<th>Market impact</th>
<th>Vision &amp; capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Market adoption</td>
<td>Portfolio mix</td>
</tr>
<tr>
<td>Low</td>
<td>Low</td>
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</table>
Vision & strategy
Capgemini envisions to be a full-service digital product engineering service provider. It continues to implement its intelligent industry strategy in digital product engineering to support enterprises with full product integration and development and deployment of next-generation technologies. With its current portfolio of solutions and frameworks, it aims to help enterprises across industries to pivot their business and be ready to take advantage of the digital revolution and make data-driven decisions. Capgemini currently supports its clients absorb new technologies and help them engineer future business processes and products to maintain a competitive edge in the market.

Revenue by geography

<table>
<thead>
<tr>
<th>Region</th>
<th>Low (&lt;10%)</th>
<th>Medium (10-30%)</th>
<th>High (&gt;30%)</th>
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<tbody>
<tr>
<td>North America</td>
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<tr>
<td>UK</td>
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<tr>
<td>Europe (excluding UK)</td>
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<td></td>
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<tr>
<td>South America</td>
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<tr>
<td>India</td>
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<td></td>
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<tr>
<td>Rest of APAC</td>
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<td></td>
<td></td>
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<tr>
<td>China</td>
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<td></td>
</tr>
<tr>
<td>Middle East &amp; Africa</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Rest of the World</td>
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</tbody>
</table>

Revenue by industry

- Automotive
- Medical devices
- Energy & utility
- Aerospace & defense
- Telecom
- Retail
- Consumer electronics
- Industrial products
- Others

Revenue by value chain function

- Ideation & design
- Product development
- Testing & certification
- Product support & maintenance

Digital product engineering projects by buyer size

- Small (annual revenue < US$1 billion)
- Medium (annual revenue US$1-5 billion)
- Large (annual revenue US$5-10 billion)
- Very large (annual revenue US$10-20 billion)
- Mega (annual revenue > US$20 billion)

1 Includes industry verticals such as semiconductor, enterprise software, railways, and media & entertainment.
Source: Everest Group (2022)
Capgemini | digital product engineering services profile (page 3 of 4)

Case studies and solutions

Case study 1
Helped a global OEM with the validation of its Advanced Driver-assistance Systems (ADAS)

Business challenge
The client was looking for a partner to manage the exponential amount of data and handle the system complexity arising from ADAS system in autonomous vehicles.

Solution and impact
Capgemini leveraged its capabilities across automotive engineering, data, and technology to help the client move faster on the exploitation of huge volumes of data generated by the test campaigns. Capgemini’s approach led to more connected and optimized end-to-end data mining solutions resulting in the creation of new datasets, proof of concepts, and use cases for training models and algorithms. This resulted in developing more robust systems and processes for gathering, storing, and analyzing vast amounts of data from road tests and simulated driving.

Case study 2
Provided consulting support to client to deliver data analytics facility for UK national infrastructure

Business challenge
The client wanted to develop a centralized data analytics platform that enables exploration of data from across the whole of UK including infrastructure network, people, and environment.

Solution and impact
Capgemini led a year-long consulting engagement to define the requirements and design a three-year roadmap for the project. It provided structured processes for requirement engineering, architectural design, and road mapping to create stakeholder engagement. Capgemini continues to support the scientific computing department of UK by providing a detailed roadmap for development and implementation of the data analytics platform.

Proprietary solutions (representative list)

<table>
<thead>
<tr>
<th>Solution</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADAS</td>
<td>A fully automated verification &amp; validation platform, and a full training journey solution to upskill and train engineers</td>
</tr>
<tr>
<td>Andy 3D</td>
<td>An immersive remote assistance platform that provides digital continuity of 3D models; it also serves as an asset revamping web platform that offers interactive and easy-to-use 3D hybrid digital mock-up in a web browser from any device</td>
</tr>
<tr>
<td>Connected medical injector test bed</td>
<td>An advanced test and simulation platform that can be leveraged for medical device design and development of product combinations</td>
</tr>
<tr>
<td>ENSCONCE</td>
<td>An edge computing platform that brings together multiple capabilities, accelerators, and frameworks to enable rapid development of multi-access edge computing solutions; it can reside on micro-datacenters close to access network, aggregation points, regional datacenters, and central offices and enable low latency edge application development</td>
</tr>
<tr>
<td>Global Federation of edge computing platforms by CSPs</td>
<td>A global edge compute solution that demonstrates inter-connected business models between Communication Services Providers (CSP) interworking and roaming; it was selected by GSMA as a major initiative of the year in 2020 with key CSP partners such as Telefonica, Telstra, KT, and China Unicom</td>
</tr>
<tr>
<td>Network AI – Radio Intelligent Controller (RIC) for Open RAN</td>
<td>A suite of software apps to enable SDN functionalities in Open RAN networks, especially for 5G; it further adds to the intelligence and automation layer in the RAN network for data analytics, which enhances the customer experience</td>
</tr>
<tr>
<td>X-IoT</td>
<td>A packaged, industrialized, secured, and end-to-end connected solution to address the digital transformation challenges faced by companies; it can be combined with existing IoT solutions to generate revenue through new business offerings</td>
</tr>
</tbody>
</table>

Source: Everest Group (2022)
Investments and partnerships

### Key alliances and partnerships (representative list)

<table>
<thead>
<tr>
<th>Company</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>AWS</td>
<td>A partnership to provide clients with scalable, reliable, and cost-effective cloud computing services</td>
</tr>
<tr>
<td>Dassault</td>
<td>A partnership to enable PLM integration – digital twin, digital continuity, and robotic programming; Capgemini is a global SI partner with 1,500+ certified consultants present globally</td>
</tr>
<tr>
<td>IBM</td>
<td>An association to develop advanced edge applications in areas such as mixed reality, robotics, and IoT</td>
</tr>
<tr>
<td>Intel</td>
<td>An alliance to offer smart city solutions being deployed on the Intel IoT platform</td>
</tr>
<tr>
<td>Jaguar Land Rover</td>
<td>A partnership to build a solution that accelerates and develops possible advanced software-based automotive features such as autonomous driving</td>
</tr>
<tr>
<td>Microsoft</td>
<td>A collaboration to develop new and innovative solutions for clients using Microsoft’s ubiquitous software</td>
</tr>
<tr>
<td>PTC</td>
<td>A strategic partnership to create IoT solutions spanning industries such as automotive, medical devices, aerospace &amp; defense, and energy &amp; utilities</td>
</tr>
</tbody>
</table>

### Recent digital product engineering services investments/acquisitions (representative list)

<table>
<thead>
<tr>
<th>Investment/target</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>5G labs</td>
<td>Investment to set up three international 5G labs (Portugal, Paris, and Mumbai) to provide 5G-lab-as-a-service and work on use cases for different industry verticals</td>
</tr>
<tr>
<td>Advectas</td>
<td>Acquisition to bolster capabilities in areas such as business intelligence, data management, data science, and consulting</td>
</tr>
<tr>
<td>Altran</td>
<td>Acquisition (including Tessella, frog, IRM, and Cambridge Consultants) to increase its presence in the engineering services market and deepen its capabilities in technologies such as IoT, edge computing, cloud, 5G, AI/ML, and AR/VR</td>
</tr>
<tr>
<td>Autonomous mobility center</td>
<td>Investment to build an autonomous mobility hub and global training center to address challenges in autonomous vehicles such as scale and complexity of data processing, volume of test scenarios, and adapting systems to numerous vehicle variants</td>
</tr>
<tr>
<td>Hybrid Intelligence</td>
<td>Investments to expand global footprint to deepen its capabilities in data science to accelerate evidence-based decision-making, increase profitability, and reduce costs</td>
</tr>
<tr>
<td>Liquid Hub</td>
<td>Acquisition to expand presence in the North American market and build offerings in digital and cloud and consulting services for IoT applications</td>
</tr>
</tbody>
</table>
Appendix
Everest Group PEAK Matrix® is a proprietary framework for assessment of market impact and vision & capability
Services PEAK Matrix® evaluation dimensions

Measures impact created in the market – captured through three subdimensions

**Market adoption**
- Number of clients, revenue base, YOY growth, and deal value/volume

**Portfolio mix**
- Diversity of client/revenue base across geographies and type of engagements

**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, innovative commercial constructs, alliances, M&A, etc.

**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 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 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 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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