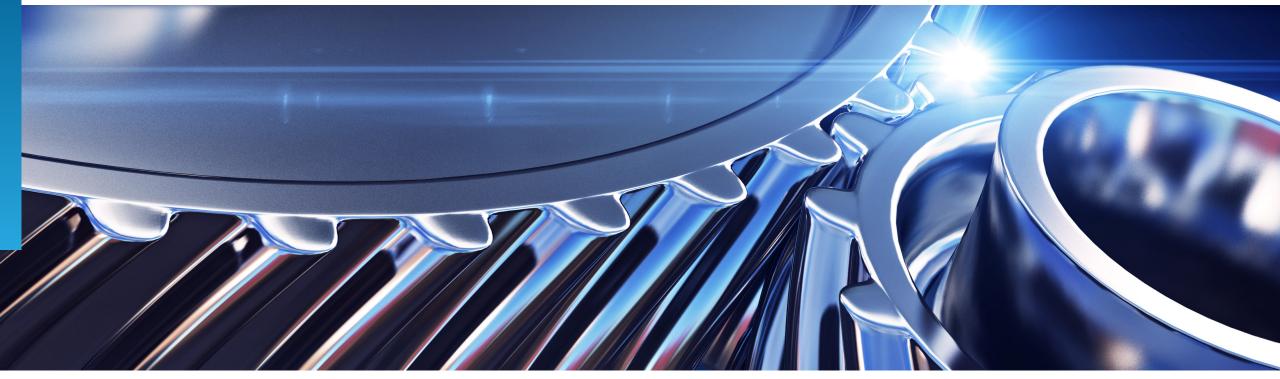


Provider Engineering Compendium

Industry 4.0 Service Provider Compendium 2023: Unleashing the Era of Phygital Manufacturing

October 2022: Complimentary Abstract / Table of Contents



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For more information on this and other research published by Everest Group, please contact us:

Nishant Udupa, Practice Director

Riya Agrawal, Senior Analyst

Mayank Dawar, Analyst

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Background and introduction of the research

Industry 4.0 is revolutionizing the manufacturing and operations ecosystem by converging the digital world with the physical world, integrating emerging technologies with physical systems. Enterprise outlook toward Industry 4.0 has changed post the COVID-19 pandemic, as early adopters realized significant benefits via enhanced operational efficiencies, improved asset utilization and labor productivity, and increased visibility and inventory tracking. Industry 4.0 enables cost savings, increased revenues, and the development of new platform-based business models; and as a result, enterprise investments in technologies enabling Industry 4.0 have increased across the value chain.

Engineering service providers are playing a critical role in accelerating enterprise adoption of Industry 4.0 by offering a wide range of services revolving around consulting and design, development and verification & validation (V&V), deployment & system integration (SI), and managed services and support.

This research is the second edition of Everest Group's Industry 4.0 Services PEAK Matrix[®] Assessment, wherein we have evaluated 22 engineering service providers featured on the PEAK Matrix[®]. This assessment is based on RFI responses from providers, interactions with their Industry 4.0 leadership, client reference checks, and an ongoing analysis of the engineering services market.

This report includes the profiles of the following 22 leading engineering service providers featured on the Industry 4.0 PEAK Matrix:

- Leaders: Accenture, Capgemini, Cognizant, HCL Technologies, LTTS, TCS, and Wipro
- Major Contenders: Bosch SDS, Cyient, eInfochips, Globant, Happiest Minds, HARMAN DTS, Microland, Mindtree, SoftServe, Softtek, Tech Mahindra, and UST
- Aspirants: GS Lab, Incedo, and Onward Technologies

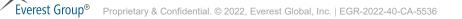
Scope of this report





Providers 22 leading broad-based and pure-play engineering service providers





Key tenets of Industry 4.0 across the industrial value chain

Industry 4.0 has implications for each sub-element of the industrial value chain

Design and	Procurement	Operations	Value chain sub-element Key imp	Logistics	cases NOT EXHAUSTIVE
development Product design	Raw material planning and supplier management	Manufacturing process optimization	Equipment monitoring	Inbound and outbound logistics	Maintenance and diagnostics
Virtual prototyping and immersive designing	Reduced supply risk and better cost control through analytics	Enhanced flexibility, quality, and efficiency through intelligent and connected systems	Continuous monitoring of connected and intelligent systems	Improved tracking of shipments and fleet	Continuous maintenance of remote products
 VR-led immersive and interactive models of products and factories Cloud-based simulation software 	 Analytical price forecasting Spend analytics Vendor management dashboards Supplier performance monitoring using automatic feedback 	 Data leverage to optimize material use and yield Autonomous quality checks 3D-printed customized parts and spare parts 	 Remote asset monitoring Predictive maintenance Intelligent emergency warning systems Condition-based monitoring 	 Real-time location tracking through sensors Automatic payments through blockchain Route optimization Fleet tracking 	 Remote monitoring Predictive maintenance Automated failure diagnostics Product behavior analytics
Product development	Process digitization	Shop floor optimization	Workforce safety and training	Warehouse management	
Quicker and complex prototype development	More efficient procurement management	Less human intervention and improved visibility into shop floor operations	Reduced occupational hazards and enhanced workforce productivity	Reduced human intervention through automated and connected systems	
3D-printed complex product prototypes	 Digitized procure-to-pay processes Automated processing 	 Real-time tracking of inventory and finished materials Smart buildings to save electricity Autonomous facilities inspection Automatic material handling Digital twinning of the entire plant Automated planning and scheduling 	 Training through immersive technologies Workforce geofencing Smart wearables Human-machine Interfaces Increased assistance through collaborative robotics 	 Vision picking and voice picking Automated picking and Automated Guided Vehicles (AGVs) Smart inventory management IoT-enabled radio-frequency identification 	

Enabling technological developments: IoT, 5G, extended reality, intelligent technologies (AI/ML, computer vision), 3D printing, cloud computing, edge computing, analytics, robotics, cybersecurity, blockchain, drones, digital twins, and simulation

The Industry 4.0 service provider compendium report has profiles and buyer case studies for 22 leading engineering service providers

Industry 4.0 Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service Provider Compendium 2023: Unleashing the Era of Physical Service	ygital Manufacturing						
Provider Industry 4.0 services prof							
Everest Group assessment – Leader							
	nygital Manufacturing						
	Provider Industry 4.0 services prof	ustry 4.0 services profile (page 2 of 4)					
Market impact	Market impact Overview						
Market adoption Portfolio mix Value delivered	1						
	Vision and strategy Service Provider's vision is to continuously leverage technology for scaling the future for their customers. It envisions creating a sustainable world and delivering positive of	v			7		
Steere Ha	business boundaries. It envisions cleaning a sustainable wond and derivering positive of business boundaries. The provider aims to achieve this by engineering the change and setting up innovatio	Industry 4.0 Service Provider Compendium 2	023: Unleashing the Era of Phy	gital Manufacturing			
Strengths	globally to effectively use technology, such as 5G, AI, collaborative robots, digital fact transport, while being committed to achieving environmental stewardship, social deve	Provider Industry 4.0) services profi	e (page 3 of 4)			
 Service Provider has a superior play in providing consulting and de services and support to clients 	progress for all its stakeholders.	Case studies and solutions	S				
 It has made dedicated investments in forming strategic partnerships 	Industry 4.0 Services revenue	and summer the sub-completence residence of the sub-sub-sub-sub-sub-sub-sub-sub-sub-sub-		Industry 4.0 Comies Drouids	r Compendium 2023: Unleashing the Era of Phygital Manufacturing		
and developing IPs and solutions to bolster capabilities in IIoT, ana	<us\$150 million="" million<="" td="" us\$150-450="" us\$450-750=""><td></td><td></td><td>Industry 4.0 Service Provide</td><td>e Compendium 2023. Onleasning the Era of Phygnai Manufacturing</td><td colspan="2">1 2023. Onleasning the Eta of Phygnai Manufacturing</td></us\$150>			Industry 4.0 Service Provide	e Compendium 2023. Onleasning the Era of Phygnai Manufacturing	1 2023. Onleasning the Eta of Phygnai Manufacturing	
simulation, robotics, and additive manufacturing			verse device ecosystem for a Provider Industry 4.0 services profile (page 4 of 4) Investments and partnerships				
Clients appreciate service provider' ease of working, customer sense	Revenue by service function						
delivery speed, as well as the ability to provide end-to-end support,	Consulting & Development Deployment &	Business challenge The client was operating in a highly complex and fra	client was operating in a highly complex and fragmented ecosystem and was loc				
to managed services and support	design & V&V system integration	simplify the managed services. It intended to address special devices that traditio teams failed to address.		-			
	Revenue by geography	Solution Service Provider implemented the Plant Workblaze solu	aze solution using DECoDe platform ears. The solution enabled asset pro remote operations & configuration, f	Key alliances and partnerships (representative list)			
	Low (<10%)			Company	Details		
	North America South America Japan			Thingworx, Axeda, Vuforia, Windchill, Navigate	A partnership to provide IoT solutions to clients for smart manufacturing, product engineering, and AR		
	UK India Rest of APAC	diverse device families and optimized operational ef		Azure IoT	A partnership to provide IOT solutions to clients		
Everest Group® Proprietary & Confidential. © 2022, Everest Global, Inc. EGR-2022-40-R-5536	Europe China MEA	Case study 2 Smart factory assessment for a global l		AWS	A partnership to provide IOT solutions to clients		
			t for a global HVAC manufactur	OrCAD Capture	A partnership to provide schematic and PCB design services to clients		
		Business challenge		Allegro PCB	A partnership to provide PCB design services to clients		
		The client experienced a lack of standardization in p for a partner to develop a business case and global		Mentor Graphics - xDX Designer	A partnership to provide schematic design services to customers		
	Everest Group® Proprietary & Confidential. © 2022, Everest Global, Inc. EGR-2022-40-R-5536	commercially available platforms, and recommend best fit for three business mode to-Order, and Engineer-to-Order – with a view to standardize major platforms acros Solution		Mentor Graphics - xDX Library	A collaboration to provide a library for electronic designs		
			indardize major plationna acrosa	Expedition	A partnership to provide PCB design services to clients		
S fo P ei		Service Provider performed a fit-gap analysis of exist		Schneider Electric	A partnership to provide development and industrial automation research		
		for MES, supply chain collaboration, and smart factory deployment. Engaging with the Provider also developed an implementation plan for multi-site roll-outs and complete		Aveva	A partnership to build industrial software that will shape the future across a range of industries, from water a	nd energy to food and infrastructure	
		eight weeks time.		Recent Industry 4.0 services i	nvestments/acquisitions (representative list)		
		Ferenest Group® Proprietary & Confidential, © 2022, Evenest Global, Inc. EGR-2022-40-R-5536		Investment/target	Details		
				Zenith Technologies	An acquisition to provide end-to-end consultancy, design implementation, optimization, and support for appl		
			st Global, Inc. EGR-2022-40-R-5536	Brightwolf	An acquisition to provide custom IIoT solutions and technological solutions such as IIoT application engine, and optimized connectivity)	secure data management infrastructures, edge suites, and device managers (for quick	
			TQS Integration	An acquisition to accelerate growth in IoT, data, and analytics in Ireland			
			ESG Mobility	An acquisition to provide digital automotive engineering R&D for connected, autonomous, and electric vehic	les		

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Reports title Release date Engineering Services Outsourcing Handbook March 2022 Digital Product Engineering Service Provider Compendium 2022: Bridging the Chasm between the Physical and Digital Worlds March 2022 The Growing Need for Inclusive Talent Models: Learning from Impact Sourcing Specialists May 2022 Engineering Services Enterprise Pulse: Sustaining Customer Satisfaction Amid a Talent Shortage May 2022 Impact Sourcing Specialist Profiles 2022 June 2022 **Engineering Next-Generation Digital Products** June 2022 Digital Twin Services PEAK Matrix[®] Assessment 2022 July 2022 Connected Medical Device Services PEAK Matrix[®] Assessment 2022 August 2022 Mirror into the Megatrends August 2022 Trends for the Top 200 Engineering Research & Development (ER&D) Enterprises September 2022 Industry 4.0 Services PEAK Matrix[®] Assessment 2022: Unleashing the Era of Phygital Manufacturing September 2022 October 2022 Industry 4.0 Services Provider Compendium 2023: Unleashing the Era of Phygital Manufacturing Engineering Services Top 50 Q4 2022 Software Product Engineering Services PEAK Matrix® Assessment 2023 Q4 2022 5G PEAK Matrix[®] Assessment 2023 Q1 2023

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Blog everestgrp.com/blog Dallas (Headquarters) info@everestgrp.com +1-214-451-3000

Bangalore india@everestgrp.com +91-80-61463500

Delhi india@everestgrp.com +91-124-496-1000 London unitedkingdom@everestgrp.com +44-207-129-1318

Toronto canada@everestgrp.com +1-647-557-3475

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