

F R O S T & S U L L I V A N

BEST PRACTICES

AWARDS

F R O S T & S U L L I V A N

2020 BEST PRACTICES AWARD

Tech
Mahindra

**2020 INDIAN AEROSPACE & DEFENSE
DIGITAL TRANSFORMATION SOLUTION PROVIDER
COMPANY OF THE YEAR AWARD**

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Background and Company Performance

Industry Challenges

Aerospace and defense (A&D) companies have been pioneering adopters of next-generation technologies, but at the same time the digital future of the Indian market remains challenging.

As A&D products and services become more sophisticated, organizations must translate their ambitious digital transformation strategies from proofs of concept into production while keeping costs in check. A common barrier that they face is the difficulty in combining the powers of machines and humans to work together in new ways. The availability of new data comes with the challenge of being able to draw meaningful insights from that data.

Digital transformation offers significant potential for A&D organizations across their businesses (from inbound logistics to product development and marketing) in terms of becoming more efficient while generating new revenue opportunities. A first-mover advantage will be critical to success as new business models, services, and partnerships develop. Companies and military forces can accelerate their digital transformation journey by digitizing across the value chain, collaborating to drive innovation and boost future-readiness, and embracing new business models.

Visionary Innovation and Performance/Customer Impact

Growth Performance

Tech Mahindra is rapidly expanding its A&D business as Indian companies and defense forces invest in new products and digital transformation to improve business models and processes. Its annual revenue grew by 13% in 2019, supported by more than 131,000 people working for over 925 clients in the country.

Tech Mahindra provides solutions that transform customers' business processes and improve market share through innovative products and services. The company's extensive footprint in India and investments in labs and centres of excellence with proven solutions have allowed it to build new competencies and develop modular and scalable solutions with accelerated delivery systems. It is collaborating with the start-up ecosystem and building stronger alliances and partnerships to adapt to the changing environment across all verticals that it serves.

Competitive Differentiation

Tech Mahindra aligns technology, businesses, and customers through innovative frameworks, delivering future-ready digital convergence solutions across A&D, automotive, industrial equipment, transportation, consumer products, energy and utilities, healthcare, and high-tech products.

The company has been at the forefront of collaboration with niche technology providers to combine the synergies of start-ups with its decades of industry experience.

Frost & Sullivan determined that Tech Mahindra's competitive advantage is its deep understanding of the A&D ecosystem because of its strong connections with the industry. Its in-house research and development teams continue to develop cutting-edge solutions and a reliable network of alliances.

Product Portfolio

Tech Mahindra has a broad portfolio of solutions for the A&D industry. For example, it developed a unique ground support system for aircraft health management so a commercial aircraft manufacturer could facilitate real-time and post-flight recorded data management, fault notification, and diagnostic reporting.

Tech Mahindra is supporting Indian Ministry of Defence initiatives with several projects. It is enabling the digital transformation of the Indian Navy with the Armed Forces Secure Access Card (AFSAC), a radio frequency identification system that will replace paper credentials for access to bases and ships. It also is developing a secure application to manage access control devices, network devices, and the AFSAC through a data center. Tech Mahindra and the Army Software Development Centre have developed Army Record Office Process Automation software so that 1.2 million soldiers of the Indian Army have easy access to their service records. It designed and developed a maritime domain awareness package using a Geographic Information System (GIS)-based model for the Indian Defense Forces, which helped with the integration of data from multiple surveillance sensors and communication channels.

Tech Mahindra has been a leading developer of platforms for data analytics and business intelligence (BI) visualizations. PRISM is a web-based analytics platform with integrated data quality that is Module Hortonworks and Big Insights certified and CDH compatible. It has leveraged the full potential of the Big Data and analytical environment, helping customers by reducing time to deliver for analytics by 50%, allowing for 35% savings on resource costs per project. Its i-DECISIONS platform accelerates BI implementation by as much as 40%; it is customizable, scalable, and modular.

Digital technologies including artificial intelligence (AI) and blockchain support the Fourth Industrial Revolution (commonly called Industry 4.0), but they often work in silos and their potential is not thoroughly utilized. Tech Mahindra has invested in top Internet of Things (IoT) platform providers and niche start-ups, partnered with AI product vendors, and created the GAiA online marketplace for delivering industrial IoT and AI solutions built upon the open-source Acumos platform. With these services, the company is helping A&D clients increase productivity and efficiency, and improve visibility and traceability.

Technological Innovation

Tech Mahindra's comprehensive solutions in the track-and-trace domain ensure supply chain visibility and reliable asset tracking and usage monitoring. Its technological innovations include a machine connectivity and analytics solution for aircraft manufacturers that reduces rejection rates and improves productivity. The end-to-end, cloud-based solution for remote asset health monitoring continuously collects operational data to predict anomalies and alert users. A blockchain platform that integrates data for the aerospace ecosystem connects manufacturers, operators, training institutes, multi-tier suppliers, and aviation authorities. A specialized solution provides functionalities including IoT-based constant tracking, unified visualization, third-party app integration, cloud-based real-time data processing, current asset location and status, and sensor information.

Tech Mahindra helped in the development of Tactical Command Control Communications and Information System (Tac C3I) Middleware for the Indian Defense Forces, which supports Military Message Transfer Format (MMTF) for end-to-end communication between different systems and enhanced decision support capabilities at all levels of military command and control.

Vision Alignment

Tech Mahindra's vision for India is to provide innovative solutions and services with continuous developments in its technology labs. Its strategic intent is to help A&D organizations run efficiently by strengthening core activities, change the way they function through digitalization and connected engineering, and grow into the digital business domain. The company's DigitALL philosophy focuses on transforming customers across products, services, business models, and reimagined business processes.

Tech Mahindra defines a digital strategy in the context of a client's business strategy and market trends, and designs new business and organizational models to make this a reality. It works with customers in design thinking workshops to create a digital transformation roadmap.

Tech Mahindra combines in-house innovation and partners' niche technologies to enhance offerings in the areas of connected aircraft and high-end analytics to shift aircraft and equipment maintenance from scheduled to predictive. On the manufacturing side, it envisages enhanced digital continuity, connecting the dots from design to the aftermarket with total traceability.

With 5G connectivity likely to be available soon, Tech Mahindra has set up a 5G lab and is working with global leaders in the telecommunication space to have use cases ready for the factory of the future. Robotics and automation, hyper-connected IoT machines, 5G networks, enhanced cybersecurity, integrated IT systems, Big Data and AI platforms, digital supply chains, blockchain, mobility, design thinking, and enhanced customer experience are essential areas of A&D digital transformation.

Customer Service Experience

Tech Mahindra is enriching the connected experience across the customer lifecycle with solutions tailor-made to a customer's business strategy and market forces. The company stands by all commitments at any cost. It implemented an end-to-end solution for remote asset health monitoring after designing customized wireless sensors for a customer's industrial assets to decrease unexpected downtime and improve motor and subcomponent performance.

Tech Mahindra has helped customers achieve digital transformations in the areas of aircraft health management, cabin design, digital technical publications, product lifecycle management, cloud migration, AI, SAP upgrades, data analytics and visualization, enterprise resource planning, mobility, IoT platforms, digital SCM solutions, and Industry 4.0.

A partnership with K2View, a company that provides a data-as-a-service platform, resulted in an integrated platform that helps organizations accelerate their digital transformation through a risk-free modernization path to efficient, scalable, and data-driven architectures. Tech Mahindra also partnered with SSH.com to deploy cutting-edge cybersecurity solutions to secure access control for enterprises. Frost & Sullivan concluded that with these strategic partnerships, Tech Mahindra is empowering customers along their digital transformation journey while ensuring that security remains a priority.

Conclusion

Tech Mahindra is expanding its business and geographical footprint and is dedicated to innovation while focusing on giving customers connected and robust experience. The company has invested in innovation labs and made acquisitions to strengthen its digital portfolio for a unique end-to-end. Frost & Sullivan is impressed with the trust that clients have placed in Tech Mahindra to help them on their digital transformation journey. Projects with the Indian Ministry of Defence are a testament to its success.

With its strong overall performance, extensive reach and differentiated offerings Tech Mahindra has earned Frost & Sullivan's 2020 Company of the Year Award.

Significance of Company of the Year

To receive the Company of the Year Award (i.e., to be recognized as a leader not only in your industry, but among non-industry peers) requires a company to demonstrate excellence in growth, innovation, and leadership. This excellence typically translates into superior performance in three key areas—demand generation, brand development, and competitive positioning—that serve as the foundation of a company’s future success and prepare it to deliver on the 2 factors that define the Company of the Year Award: Visionary Innovation and Performance, and Customer Impact).



Understanding Company of the Year

Driving demand, brand strength, and competitive differentiation all play critical roles in delivering unique value to customers. This three-fold focus, however, must ideally be complemented by an equally rigorous focus on Visionary Innovation and Performance to enhance Customer Impact.

Key Benchmarking Criteria

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated each factor according to the criteria identified below.

Visionary Innovation and Performance

- Criterion 1: Addressing Unmet Needs
- Criterion 2: Visionary Scenarios through Mega Trends
- Criterion 3: Implementation of Best Practices
- Criterion 4: Blue Ocean Strategy
- Criterion 5: Financial Performance

Customer Impact

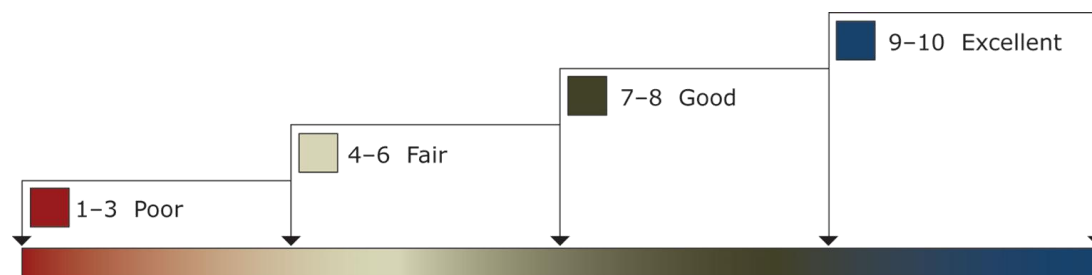
- Criterion 1: Price/Performance Value
- Criterion 2: Customer Purchase Experience
- Criterion 3: Customer Ownership Experience
- Criterion 4: Customer Service Experience
- Criterion 5: Brand Equity

Best Practices Award Analysis for Tech Mahindra

Decision Support Scorecard

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Scorecard. This tool allows research and consulting teams to objectively analyze performance according to the key benchmarking criteria listed in the previous section, and to assign ratings on that basis. The tool follows a 10-point scale that allows for nuances in performance evaluation. Ratings guidelines are illustrated below.

RATINGS GUIDELINES



The Decision Support Scorecard considers Visionary Innovation and Performance and Customer Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criterion are provided beneath the scorecard). The research team confirms the veracity of this weighted scorecard through sensitivity analysis, which confirms that small changes to the ratings for a specific criterion do not lead to a significant change in the overall relative rankings of the companies.

The results of this analysis are shown below. To remain unbiased and to protect the interests of all organizations reviewed, Frost & Sullivan has chosen to refer to the other key participants as Competitor 1 and Competitor 2.

<i>Measurement of 1-10 (1 = poor; 10 = excellent)</i>			
Company of the Year	Visionary Innovation & Performance	Customer Impact	Average Rating
Tech Mahindra	9.5	9.3	9.4
Competitor 1	9	8.7	8.85
Competitor 2	8.3	8.2	8.25

Visionary Innovation & Performance

Criterion 1: Addressing Unmet Needs

Requirement: Implementing a robust process to continuously unearth customers’ unmet or underserved needs, and creating the products or solutions to address them effectively.

Criterion 2: Visionary Scenarios through Mega Trends

Requirement: Incorporating long-range, macro-level scenarios into the innovation strategy, thereby enabling first-to-market growth opportunity solutions.

Criterion 3: Implementation of Best Practices

Requirement: Best-in-class strategy implementation characterized by processes, tools, or activities that generate a consistent and repeatable level of success.

Criterion 4: Blue Ocean Strategy

Requirement: Strategic focus on creating a leadership position in a potentially uncontested market space, manifested by stiff barriers to entry for competitors.

Criterion 5: Financial Performance

Requirement: Strong overall business performance in terms of revenue, revenue growth, operating margin, and other key financial metrics.

Customer Impact

Criterion 1: Price/Performance Value

Requirement: Products or services offer the best value for the price compared to similar offerings in the market.

Criterion 2: Customer Purchase Experience

Requirement: Customers feel they are buying the optimal solution that addresses both their unique needs and their unique constraints.

Criterion 3: Customer Ownership Experience

Requirement: Customers are proud to own the company’s product or service and have a positive experience throughout the life of the product or service.

Criterion 4: Customer Service Experience

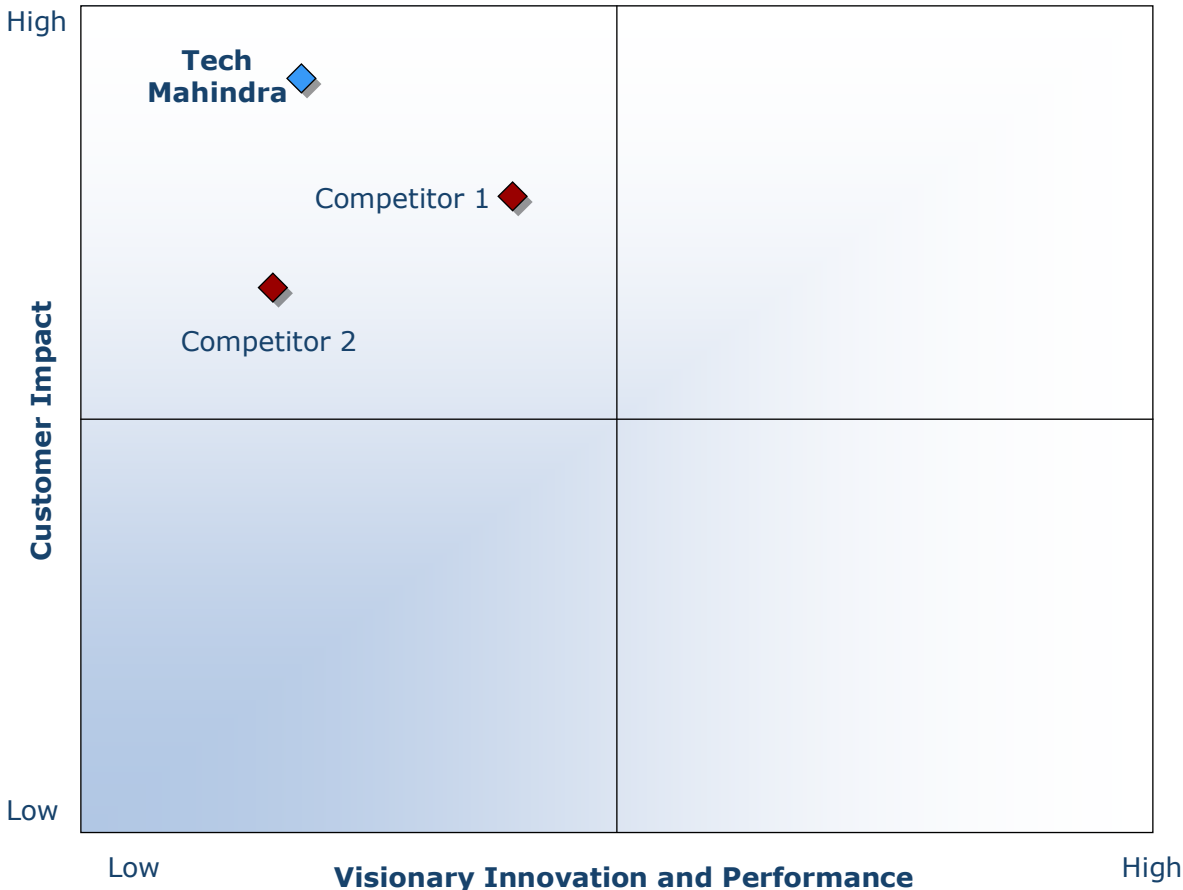
Requirement: Customer service is accessible, fast, stress-free, and of high quality.

Criterion 5: Brand Equity

Requirement: Customers have a positive view of the brand and exhibit high brand loyalty.

Decision Support Matrix

Once all companies have been evaluated according to the Decision Support Scorecard, analysts then position the candidates on the matrix shown below, enabling them to visualize which companies are truly breakthrough and which ones are not yet operating at best-in-class levels.



Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan analysts follow a 10-step process to evaluate award candidates and assess their fit with select best practice criteria. The reputation and integrity of the awards are based on close adherence to this process.

STEP	OBJECTIVE	KEY ACTIVITIES	OUTPUT
1 Monitor, target, and screen	Identify award recipient candidates from around the world	<ul style="list-style-type: none"> • Conduct in-depth industry research • Identify emerging industries • Scan multiple regions 	Pipeline of candidates that potentially meet all best practices criteria
2 Perform 360-degree research	Perform comprehensive, 360-degree research on all candidates in the pipeline	<ul style="list-style-type: none"> • Interview thought leaders and industry practitioners • Assess candidates' fit with best practices criteria • Rank all candidates 	Matrix positioning of all candidates' performance relative to one another
3 Invite thought leadership in best practices	Perform in-depth examination of all candidates	<ul style="list-style-type: none"> • Confirm best practices criteria • Examine eligibility of all candidates • Identify any information gaps 	Detailed profiles of all ranked candidates
4 Initiate research director review	Conduct an unbiased evaluation of all candidate profiles	<ul style="list-style-type: none"> • Brainstorm ranking options • Invite multiple perspectives on candidates' performance • Update candidate profiles 	Final prioritization of all eligible candidates and companion best practices positioning paper
5 Assemble panel of industry experts	Present findings to an expert panel of industry thought leaders	<ul style="list-style-type: none"> • Share findings • Strengthen cases for candidate eligibility • Prioritize candidates 	Refined list of prioritized award candidates
6 Conduct global industry review	Build consensus on Award candidates' eligibility	<ul style="list-style-type: none"> • Hold global team meeting to review all candidates • Pressure-test fit with criteria • Confirm inclusion of all eligible candidates 	Final list of eligible award candidates, representing success stories worldwide
7 Perform quality check	Develop official award consideration materials	<ul style="list-style-type: none"> • Perform final performance benchmarking activities • Write nominations • Perform quality review 	High-quality, accurate, and creative presentation of nominees' successes
8 Reconnect with panel of industry experts	Finalize the selection of the best practices award recipient	<ul style="list-style-type: none"> • Review analysis with panel • Build consensus • Select winner 	Decision on which company performs best against all best practices criteria
9 Communicate recognition	Inform award recipient of recognition	<ul style="list-style-type: none"> • Announce award to the CEO • Inspire the organization for continued success • Celebrate the recipient's performance 	Announcement of award and plan for how recipient can use the award to enhance the brand
10 Take strategic action	Upon licensing, company able to share award news with stakeholders and customers	<ul style="list-style-type: none"> • Coordinate media outreach • Design a marketing plan • Assess award's role in strategic planning 	Widespread awareness of recipient's award status among investors, media personnel, and employees

The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of the research process. It offers a 360-degree view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies. Too often companies make important growth decisions based on a narrow understanding of their environment, resulting in errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry participants and for identifying those performing at best-in-class levels.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS



About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, helps clients accelerate growth and achieve best-in-class positions in growth, innovation, and leadership. The company's Growth Partnership Service provides the CEO and the CEO's growth team with disciplined research and best practices models to drive the generation, evaluation, and implementation of powerful growth strategies. Frost & Sullivan leverages nearly 60 years of experience in partnering with Global 1000 companies, emerging businesses, and the investment community from 45 offices on 6 continents. To join Frost & Sullivan's Growth Partnership, visit <http://www.frost.com>.