



LTI Headquarters, Powai, Mumbai

# IT & TECHNOLOGY SERVICES

## L&T INFOTECH

### Overview:

L&T Infotech (LTI) is a global technology consulting and digital solutions company helping more than 420 clients succeed in a converging world. With operations in over 30 countries, the business goes that extra mile for its clients, and accelerates their digital transformation. Founded in 1997 as a subsidiary of Larsen & Toubro Limited, its unique heritage gives it unrivalled real-world expertise to solve the most complex challenges of enterprises across all industries. Each day, the team of more than 34,000 LTIites enables clients to improve the effectiveness of their business and technology operations

and deliver value to their customers, employees and shareholders.

The business has a strong presence in each of the following verticals:

- Banking and Financial Services
- Insurance
- Manufacturing
- Energy and Utilities
- Consumer Packaged Goods (CPG), Retail and Pharma
- Hi-Tech, Media and Entertainment

The business has offerings across the following service lines:

- Application Development & Maintenance and Testing
- Enterprise Solutions
- Infrastructure Management Services
- Analytics, AI & Cognitive
- Enterprise Integration & Mobility

### Business Environment

FY 2020-21 has brought in an unprecedented change in LTI's operating model in the light of the pandemic. In these unusual times, the primary focus at LTI has been on



LTI Command Centre, Johannesburg

employee safety and safeguarding the business interests of clients.

NASSCOM's CEO survey pointed out that digital transformation deals have seen a 30% jump since the pandemic. There is a clear shift in focus from legacy / cost optimisation to front-end customer experience. The top three tech priorities are cloud, advanced analytics and cyber security.

However, with growth coming back, access to capability and right skills will need more focus as well. As organisations move from services to platforms, build of new business models and fast-track inorganic growth, new talent capabilities will be in demand.

The vertical-specific, key trends observed are as follows:

a) **Banking and Financial Services:** IT spending of the Banking industry in the digital space has largely been resilient. The pandemic has accelerated digital transformation to enable enhancement of straight through processing and improvement of operational effectiveness. Banks are also dealing with Covid-19-induced buying behaviour and unprecedented liquidity in the economy due to massive global stimulus programmes. As a result, technology investment in lending and wealth products is seeing a significant surge. Banks in some regions were also hit by challenges of money laundering and cyber security. Hence,

solutions around Know Your Client, Anti-Money Laundering and other regulatory requirements have been key drivers for IT spend as well.

- b) **Insurance:** The pandemic and other catastrophic losses, such as those caused by hurricanes and wildfires, impacted many insurers. With increased exposure, the lowest-ever interest rates, and increasingly sluggish economic conditions, insurance companies faced significant economic challenges. Digital spend, however, continued to be prioritised by insurers, with Covid-19 forcing companies to quickly adopt remote and digital ways of working. In addition to an increased focus on expense management, insurers are likely to prioritise digitising core services, aligning and reimagining insurance products to the 'new normal', and hardening the organisation against newly exposed cybersecurity concerns and regulatory challenges.
- c) **Manufacturing:** This sector includes Industrial Manufacturing, Automotive & Aerospace and was one of the most impacted by the pandemic during the early part of the financial year. With many manufacturing facilities shutting down due to Covid-19, cost containment became a top priority and led to reduced IT spend initially. The sector saw a smart recovery during the latter part of the year as factories and supply chains opened up and started to work in innovative ways. Companies in the manufacturing sector have realised that digital operating models will be the key to



Mosaic Experience Centre, Powai, Mumbai

future growth e.g., direct-to-customer and subscription revenue models, as opposed to distributor and product-sales led models. Therefore, digital transformation will take on greater urgency and will drive capital spend, both in deploying new digital business model capabilities as well as in overall digital infrastructure and readiness.

- d) **Energy and Utilities:** This sector was one of the most impacted due to a combination of Covid-19 and the fall in commodity prices. Recovery is tepid, and spends continued to be impacted. Going forward, improved macro-economic conditions as well as full-scale vaccination efforts across the world should aid recovery in demand in the oil & gas space. Utilities have bounced back to near normalcy, showing good growth rates.
- e) **Consumer Packaged Goods (CPG), Retail and Pharma:** The CPG and Retail space witnessed renewed focus on omnichannel experiences and digital investments focusing on online and physical stores for seamless home-based shopping. The pandemic ensured a higher push for consumer connect and optimising B2C business models by investments in digital commerce capabilities, driving hyper-personalised customer experiences with low touch mechanisms and using new-age technologies like AI/ML.

In the pharma industry, the focus is on fast-tracking drug discovery for vaccines and building a robust

and receptive supply chain. As a result, R&D and Manufacturing functions took precedence to accelerate time-to-market and build scale at push-button speed. AI-driven R&D to expedite drug discovery, personalised medicines by predicting individual disease trajectory, digital supply network and connected patient experience are some of the top-of-mind business priorities. Security and compliance also remained as key considerations in accessing patient information.

- f) **Hi-Tech, Media and Entertainment:** The shift to working from home with the help of digital collaboration tools is likely to drive demand for hi-tech companies. To support this shift, a growing need for infrastructure, like cloud computing for business or increased broadband consumption for consumers, will be much sought after. Media companies will continue to make heavy investments in digital technologies and focus on faster delivery of digital products by leveraging global delivery model. Apart from investing in building video streaming platforms, there will be considerable focus on applying AI/ML technologies in the area of content discovery and content management.

### Major Achievements

During the year, LTI further strengthened its partnership and alliances ecosystem. Key achievements include:

- LTI became an Elite Services Partner of Snowflake, the Data Cloud company. LTI also became the maiden partner



LTI Delivery Centre, Mahape, Mumbai

for Snowcase, a programme that Snowflake is launching to develop and market industry-specific solutions to accelerate the cloud data transformation journey of enterprises.

- Elevation of LTI to 'Premier' partnership with Google Cloud
- 'Platinum' partnership with IBM, and
- 'Elite' partnership with ServiceNow

During the year, the Morgan Stanley Capital International Index (MSCI) included LTI as part of its Global Standard Indexes. LTI was also recognised as one of the top 5 IT brands in India as well as one of the Top 100 brands in the country as per the 'India 100 2020' report by Brand Finance, an independent brand valuation consultancy.

### Large Deal Wins

- a) A UK-based wealth management firm has selected LTI for a multi-million, multi-year deal to provide remote infrastructure support, modern cyber security services and migration to IBM Power Cloud from their legacy wealth management platform.
- b) LTI has been selected by a key Government ministry for large data and analytics led transformation deal. As part of the deal, applications and operations will be transformed and developed for collection and

dissemination of data as information, case management and fraud management using artificial intelligence.

- c) A UAE-based leader in digital transformation has selected LTI as its partner of choice to provide infrastructure and application operations support and maintenance for its existing and new customers. As part of the deal, LTI will also partner with end customers on their journey to cloud and transform operations to bring in best-shoring and automation.
- d) A Global Fortune 500 energy company has chosen LTI as its primary partner for an application managed services agreement to create and consolidate a business-aligned IT services delivery platform across the organisation and reduce the total cost of ownership.
- e) LTI has been chosen as a long-term strategic partner in a vendor consolidation deal for management of core insurance platforms for a large Fortune 500 insurance company.
- f) A leading regional bank, a new logo, selected LTI for a core banking transformation programme involving implementation of Temenos.

### Awards and Recognition

LTI was recipient of several awards, key of which are:

- a) LTI ranked #1 in the Institutional Investor's 2020 All-Asia Executive Team survey, across all sell-side categories in



LTI Welcome Centre, Powai, Mumbai

- the Technology / IT Services & Software space. It was the only IT Services Company to be included in the 'Most-Honored' List 2020.
- b) LTI topped the list of 'IT Services Challenger 2021' in Everest Group's PEAK Matrix Service Provider of the Year™ Awards.
- c) Forrester Research recognised two key LTI product offerings — Leni and Mosaic in its report on Tech Tide™: Enterprise Business Insights and Analytics, Q1 2021.
- d) Information Services Group (ISG) has named LTI a Leader in Artificial Intelligence for IT Operations (AIOps) – Mid Market in their 2020 ISG Provider Lens™ Intelligent Automation – Solutions and Services report for the US.
- e) LTI was recognised as a Leader in the ISG Provider Lens™ Digital Business – Solutions and Service Partners Report, US 2020.
- f) LTI recognised as Leader and Star Performer in Everest Group's Application and Digital Services in Capital Markets PEAK Matrix® Assessment 2021.
- g) LTI recognised as a Leader and Rising Star in the ISG Provider Lens™ Next-Gen Private/Hybrid Cloud – Data Center Services & Solutions Report, Nordics 2020.

- h) LTI was ranked among the top 50 companies (Rating 'A') in the Business World India rankings for Most Sustainable Companies 2020.
- i) LTI has been recognised as a Great Place to Work-Certified™ Company in the USA.

### Significant Initiatives

The year gone by has made it apparent that organisations need to reimagine their operating models and embrace digital transformations to ensure that they remain relevant. It is no longer the preserve of only large companies and industry leaders but has become a necessity for companies of all sizes.

LTI's Go-to-Market strategies around Digitising the Core, Operate to Transform, Data-driven Organisation and Experience Transformation are finding even greater resonance with clients in their journey to new operating models.

During the year, LTI launched 'The Grit Alliance' framework to programmatically help clients navigate the 'new normal'. Leveraging LTI's strengths and IP to co-create material outcomes, the approach involves analysing client functions across their core (product development, manufacturing, supply chain, sales & marketing, etc.) as well as foundational functions (finance, corporate functions, shared services, HR) and tech enablers to bring about efficiencies across the board.



*LTI Delivery Centre, Whitefield, Bengaluru*



*LTI Delivery Centre, Hinjewadi, Pune*

Based on the convergence of market trends and the capabilities built by LTI, two areas emerged as huge opportunity areas: the cloud business – including the work done in partnership with the Hyperscalers such as Amazon Web Services (AWS), Azure & Google Cloud Platform (GCP) – and the data products business with LTI’s market-leading platforms and products, viz. Mosaic and Leni. LTI is setting up units which will be dedicated and focused on building these businesses. These units will be a key investment area in terms of sales, marketing, alliances and capability build.

LTI’s xFH or Everything from Home framework is brought to life by ‘LTI Canvas’, a curated platform consisting of LTI solutions, Microsoft technologies, and select third-party tools. It is designed for a workforce to collaborate and deliver excellence remotely. LTI Canvas is a modern software engineering platform which uses AI to nudge the right set of behaviour and collaboration. It harnesses data generated from across the lifecycle – such as user stories, code, test cases and defects to provide insights for software development and to predict outcomes for effective decision making.

LTI launched an app for return-to-workplace, LTI SafeRadius. It helps ensure workforce well-being and enhances operational efficiency. The app provides rich and intuitive operational risk analysis by recording, processing, integrating and presenting data from various sources within and outside an organisation to construct a robust incident management process to help control the spread of Covid-19.

LTI has partnered with Temenos, the banking software company, to launch a Digital Banking Platform, powered by Temenos technology. The platform will modernise legacy core banking systems in the Nordic region, enabling financial institutions to be more agile and scalable while reducing operating costs. The partnership heralds a new era for Nordic banks as it brings together LTI’s expertise in the domain and its deep understanding of Temenos functionality and advanced cloud-native, cloud-agnostic, AI and API-first technology solutions, enjoyed by over 3,000 banks in over 150 countries.

## Human Resources

In response to the Covid-19 outbreak, LTI swiftly enabled the work-from-home option for almost all of its employees, ensuring their safety and well-being, while maintaining the continuity of operations. xFH or Everything from Home framework helped smoothen the transition for all employees.

A global helpline and email address were set up to answer questions about Covid-19. An internal portal was set up which acts as a one-stop destination for accurate information and guidelines about the Covid-19 situation. LTI’s An AI-Powered Chatbot, through which employees could share their concerns and give feedback, was also launched during the year.

The LTI culture is one of inclusivity and transparency. A gender-inclusive workforce is a natural result of this outlook,



LTI Delivery Centre, Warsaw, Poland

which is deeply woven into its ways of working. This year, LTI has become a signatory to the United Nations Women's Empowerment Principles (WEPs). Programmes such as 'Revive with LTI' for women, networks such as 'Women for Women' and zero tolerance for harassment corroborate the commitment to diversity.

LTI's workforce also includes employees from several nationalities, spread across the globe. To further strengthen this, an initiative 'Project Plus' has been put in place and is aimed at increasing the proportion of local talent in the workforce. As part of this project, students from local academic institutions are recruited. This helps LTI to foster a more diverse workforce that is not only competent, but also well-versed with the markets in which the business operates.

LTI did not delay the joining of any new hires, including trainees, and addressed all their queries and concerns through correspondence and specific induction calls. To better prepare the new workforce to manage their tasks efficiently in these times, a 'Remote Working Module' was incorporated in the curriculum.

During the year, LTI launched LTI Shoshin School whose overall framework is centred around creating an ecosystem that brings multiple learning content together and provides a standardised learning experience, thereby promoting a culture of continuous learning. This platform offers a single window of learning options for technical, functional,

behavioural and leadership skills. It provides access to a wide range of courses from the best content and learning providers in the world. Participants are able to track, share, curate and measure their learning from any source, such as live and online courses, articles, blogs, videos, podcasts, work experience, skills, and events.

In the area of succession planning, LTI developed a job family articulation strategy, which defines the entire lifecycle of an employee's career progression. For leadership roles, LTI launched programmes that cater to mentoring and talent identification across multiple levels. These individuals attend guided sessions to expedite their transition into senior leadership roles. There is an exclusive mentoring programme under the guidance of the respective CXOs, which follows a three-pronged approach based on the expansion of role, leadership behaviours and perspectives about the macro and micro areas of business. These initiatives strengthen the succession pipeline, while also creating an opportunity to fulfil leadership requirements from within the business units, thus supporting employees in pursuing their desired career paths.

### Risks and Concerns

Client relationships are at the core of the business. The Company enjoys a history of high client retention and continues to derive a significant proportion of revenue from repeat business built on the successful execution of prior engagements. Also, efforts are on to expand the client



*Mindtree West Campus, Bengaluru*

base and geographies, as well as increase the value-add of deliverables.

The major risks faced by the business include failure to align the services portfolio with newer and in-demand technologies. A technology architecture group has been created to ensure continuous skill alignment with market needs. Evolving geo-political and economic conditions may affect the client's business, which is regularly monitored.

Due to mobility and travel restrictions during the pandemic, onsite resource posting has been a challenge. This has been mitigated by greater acceptance from clients on offshoring.

The business carries translation and transaction foreign exchange risks, as a majority of the revenue is denominated in foreign currency. However, expenses in respective currencies provide a natural hedge, and coupled with a proper hedge strategy, help mitigate the risk.

Being an IT company, employees remain the prime asset. The ability of an organisation to attract and retain skilled employees is critical. Attrition of experienced and talented employees impacts organisational knowledge and client relationships. LTI has a framework in place to reward high-potential employees and has launched innovative programmes for employee engagement, which helps the organisation to contain attrition.

## Outlook

According to NASSCOM's CEO survey 2021, about 71% chief executives expect global tech spend to grow over 4%. The survey also said the recovery in global tech spending will be led by the digital segment. For the calendar year 2021, core tech spending growth will include increased digital adoption and 'work-from-anywhere' enablement.

Cyber Security Risk has emerged as a top risk across industries. LTI has leveraged leading industry standards to develop appropriate cyber security frameworks. Multiple Cyber Security controls are introduced to manage these risks. There are also massive opportunities on improving resilience, changes related to new operating models, direct-to-consumer interactions and workplace modernisation. Based on the strength of client relationships, value propositions to customers and ability to innovate, the business remains committed to deliver top quartile growth in FY22 as well.

## ■ MINDTREE

### Overview:

Mindtree is a global technology consulting and services company, helping enterprises marry scale with agility to achieve a competitive advantage. 'Born digital' in 1999, Mindtree applies its deep domain knowledge to break down silos, make sense of digital complexity and bring



*The Sundial at Mindtree Kalinga – Bhubaneswar*

new initiatives to market, faster. Mindtree enables IT to move at the speed of business, leveraging emerging technologies and the efficiencies of Continuous Delivery to spur business innovation. Operating in 24 countries worldwide, Mindtree is consistently regarded as one of the best places to work, embodied every day by its winning culture made up of over 23,000 entrepreneurial, collaborative and dedicated 'Mindtree Minds'.

Mindtree works with its customers in driving their transformation through Digital Engineering Services, enabling a shift from Enterprise IT to Product IT Operating Model. The business brings together a unique integrated approach across Agile, DevSecOps, Automation and Programme management to deliver success for its clients. Mindtree's work includes enabling comprehensive change for customers across organisation structure, culture and ways of working that value customer obsession, agility and a growth mindset, above all else.

**Digital Engineering:** Mindtree works with its customers in driving transformation through Digital Engineering Services. This approach brings together a unique integrated approach across Agile, DevSecOps, Automation and Programme management to deliver success for its clients.

**Immersive experiences:** Mindtree has always been at the forefront of digital transformation for its customers and, with the launch of 'Immersive Aurora', where the

business brings together emerging technologies with legacy, Mindtree continues to expand horizons and create new possibilities for its clients.

**Core modernisation & cloud migration:** Businesses have learnt the significance of being lean and nimble. Mindtree's approach to deliver value on clients' cloud investments are focused on delivering value across the cloud lifecycle from consulting to migration and operations. Mindtree's investment in Next-generation platforms brings in modernisation and efficiency to its delivery.

**Pervasive AI and Applied Intelligence:** Customers continue to invest in digital transformation, along with capturing, organising and gaining intelligence from data. The ubiquitous availability of networking and data has fueled augmented and automated decision-making using advanced Machine Learning (ML) and Artificial Intelligence (AI) models with a focus towards process re-imagination.

**Automation:** In the pursuit of making automation all-pervasive across the organisation, Mindtree has implemented the practice of automation maturity model assessments for all its clients' projects. In the process, Mindtree is establishing a standard for automation maturity assessment in the industry and has defined a five-point scale to assess the maturity level spanning from task-level automation at the initial level and taking it to the level of predictive and adaptive automation.



Mindtree, Minneapolis

## Alliances and Partnerships

Mindtree works in an inherently competitive market that is evolving at an unprecedented rate due to advances in technology and customer demands. At Mindtree, the idea of collaboration and partnership is to deliver appropriate technology solutions to new and existing clients that result in better business outputs and outcomes.

Mindtree's key partner relationships are:

- **Microsoft**

Mindtree has been recognised as a Microsoft Azure Expert Managed Service Provider (MSP), signifying its expertise in cloud services, assuring Microsoft customers they are working with a trusted partner for the support of Azure implementations.

- **Amazon Web Services (AWS)**

Mindtree is an Advanced Consulting Partner in the Amazon Partner Network (APN) for Amazon Web Services. Together, the businesses have helped several enterprises to successfully migrate to the cloud.

- **Adobe**

As a Platinum-level Business Partner, Mindtree brings domain experience, expertise in Adobe experience cloud and capability to scale globally.

- **Google**

Mindtree is a Premier Google Partner for Google Cloud Platform (GCP) and offers its clients a complete spectrum of Google cloud services that include big data services, cloud migration and transformation, application development, data science, artificial intelligence, and machine learning services.

- **SAP**

Mindtree and SAP have been strategic partners since 2008. Today, the relationship is even stronger due to Mindtree's 2015 acquisition of Bluefin Solutions, a Gold Partner and considered one of SAP's go-to HANA innovation partners. Mindtree's Bluefin deploys cutting-edge enterprise solutions around the world.

- **ServiceNow**

Mindtree's strategic partnership with ServiceNow spans programmes such as Sales, Services, Service Provider and Technology Partner Programme. Other than ITSM, ServiceNow Practice will focus on other platform capabilities such as ITOM, IRM, SecOps, ITBM, HRSD, CSM and custom application development.

- **Salesforce**

As a Salesforce Platinum partner, Mindtree taps into the transformational potential of Salesforce to change the way the business runs through Magnet360.



Mindtree Digital Pumpkin, London

## Business Environment

The coronavirus pandemic has continued to wreak havoc on world economies through 2020. With the launch of vaccinations across the globe, the outlook appeared to be picking up, which again is expected to be marred slightly by the emergence of more virulent strains of the virus. Through the struggle, technology has turned out to be a lifeline, changing the way individuals work, learn, shop, and entertain themselves.

It has spurred game-changing digital shifts. Governments moved quickly, using mobile solutions to provide cash assistance, financial technology has helped the survival, and in some cases, growth, of small and medium-sized businesses.

The Indian IT industry made up 18.5% of the total global IT spend in year 2020. For FY 2020-21, India's technology industry is expected to record a positive growth of 2.3% to touch \$194 billion (excl. ecommerce). Indian tech contributed ~8% relative share to the national GDP, with 52% relative share in services exports.

As the events of last year unfolded amidst significant uncertainty, businesses have learnt the significance of being lean and nimble, while also prepared to seize growth opportunities quickly.

In this journey, core modernisation and cloud play foundation roles. Businesses are adopting cloud to fulfil the following objectives:

- **Re-defining business** to grow revenue, introduce new business models, increase wallet share and achieve faster time-to-market.
- **Re-imagining business** by focusing on customer retention and revenue sustenance by focusing on value-led engagement through enhanced experiences.

## Key Initiatives

During the year, Mindtree looked at the buying patterns of its clients and accordingly created the nomenclature and realigned its focus areas into the '4x4x4' – 4 Industry Groups, 4 Service Lines and 4 Geography Clusters. This helps sharpen focus, capabilities and solution offerings, and create a differentiated value proposition. It also helps clients consume services seamlessly and provides Mindtree opportunities to cross-sell and up-sell more effectively.

## Major Achievements

### Key Deal Wins

Mindtree is seeing very good traction with the deals and has been winning annuity and multi-year large-deals across all 4 verticals. A few of them are given below:

- A leading global wind turbine manufacturer has concluded a five-year deal to drive its digital transformation journey. Mindtree will simplify, modernise, and transform the entire IT landscape of the client globally, while providing scalability to support the company's growth plans.



*Immersive Aurora, Mindtree East Campus, Bengaluru*

- Mindtree partnered with a large global airline, as a strategic technology partner, to enhance consumer experience on mobile digital platforms.
- A world-leading sportswear brand selected Mindtree as a strategic partner for a multi-year engagement to provide application development services to accelerate their journey towards a product-led and outcome-oriented organisation.
- Mindtree has been selected by a US-based diverse insurance and reinsurance provider to provide end-to-end IT Infrastructure Management and cloud services, resulting in enhanced efficiency and speed of business standardisation.

## Awards

Mindtree has been conferred the second runner-up position in the 'Best Employer for Women' (large) category by the Associated Chambers of Commerce and Industry of India (ASSOCHAM) at its Diversity & Inclusion Excellence Awards and Conclave, 2020. Mindtree has also received Business World's 5th HR Excellence and the Award 2020 for excellence in Diversity & Inclusion.

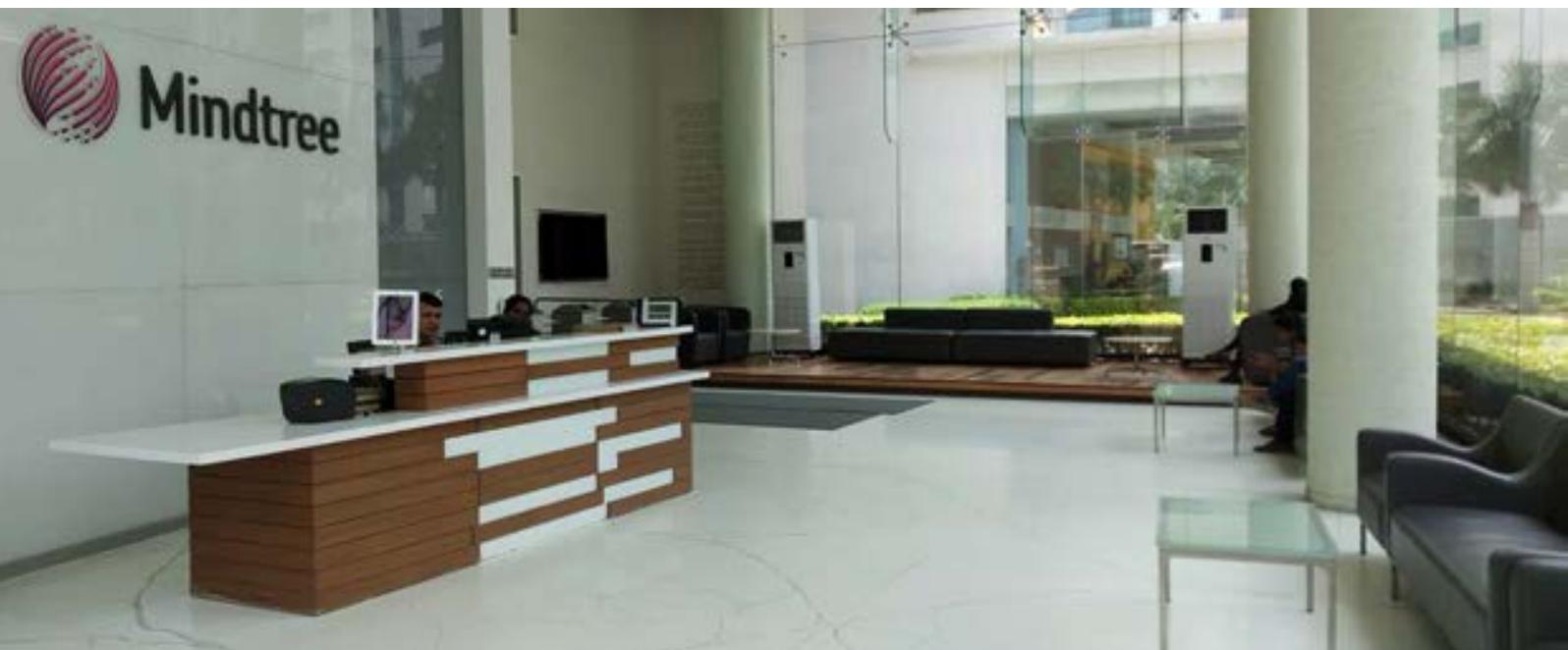
Other noteworthy mentions are:

- Rotary Karnataka CSR and NGO Award
- SHRM Showcase Award 2020 – Excellence in HR Analytics
- ASSOCHAM Foundation – Diversity and Inclusion Excellence Awards 2020
- AHA 2020 – Young HR Professional Award, AHA 2020 – Leading Change, AHA 2020 - Making a Difference
- National HRD Network – People First Ace Awards 2020 – Workforce Planning and Staffing Solutions, National HRD Network - People First Ace Awards 2020 – Organisation Design

## Environment, Health and Safety

Over the last few months, everyone has had to adjust to the 'new normal' due to the outbreak of Covid-19. Measures taken for the safety of Mindtree's employees include:

- Exclusive tie-ups with hospitals and lodges – arranging ambulances, ventilators, Covid beds, online doctor consultation, Covid super top-up insurance covering home quarantine expenses, counselling session for employees and dependents.
- Social distancing and other strict hygiene / disinfectant / fumigation norms have been implemented across all campuses.
- 1-to-1 help programme provides counselors and professionals that employees can reach out to for 24/7 support anonymously. The Company partnered with an external vendor for extensive support during Covid-19,



Phase 5, Mindtree West Campus, Bengaluru

and was also able to make forums available to employees for any assistance, such as wellness coaching, webinars, 1-to-1 counselling, self-help library, eWorkshops, online chat and assessment tools.

## Human Resources

Mindtree has a proud and unique culture and people practices. The business seeks to bring together people with different views, skills, and backgrounds. The business recognises people as its greatest assets. Over the last few months, everyone has had to adjust to the 'new normal' due to the outbreak of Covid-19. At Mindtree, the immediate task at hand was to ensure that all processes continue smoothly. Prominent measures are below:

- Crisis Management Teams were set up to support Mindtree's employees and projects. Remote support BCP was enabled immediately for all. The Work From Office approval process and self-declaration form (SDF) process was automated.
- A virtual Leadership Connect called 'All Minds Meet' was set up on a quarterly basis across geographies. This hour-long session included updates from the CEO, COO and CPO, followed by a Q&A round.
- This year, Mindtree took several steps to strengthen the campus intake process. 1250 on-campus hires from 25 colleges were hired. Arboretum, an onboarding platform, turned fully digital aligning to the Covid-19 situation.

4575 new joinees were virtually on-boarded globally, including subcontractors.

- Mindtree's diversity and inclusivity charter focuses on four pillars which is EDGES – Ethnicity / Nationality, Disability, Gender and Sexual Orientation. At Mindtree Inclusion is Respect | Belongingness | Empowerment | Progress.
- At Mindtree, the women composition ratio has steadily increased and has doubled in last 15 years. Mindtree's vision of 40x30 is to have 40% of women representation by the year 2030. Further Mindtree has 44 people with disabilities who contribute to its success and employees from 86 nationalities coming together to deliver customer success.
- Mindtree launched 'The Crucibles of Leadership' responsible to drive competency development for senior leadership.

## Risks and Concerns

Mindtree has put in place a robust enterprise-wide risk management framework that enables the identification, assessment, treatment, monitoring and reporting of potential internal and external risks while pursuing business objectives.

The advent of Covid-19 has led to several immediate shifts as well as global mega trends that offer new opportunities and challenges. New delivery models, the workforce of



*Design Thinking Workshop, Mindtree Digital Pumpkin, New Jersey*

the future and emerging ecosystems are themes which will affect the industry in a big way and will require development of new strategies and insights to identify opportunities and address the risks. Mindtree's strong client and technology focus ensures that its operating models are future-ready. Governance mechanisms are in place to track deliverables, and customer feedback is rigorously monitored.

Mindtree faces the risk of revenue concentration with its top customer. Mindtree is strengthening the connect with the next set of top customers to achieve broad-based growth.

In the knowledge industry, talent attraction and retention risks are imperative for long-term success. Employee-friendly policies, learning & development plans and career growth options have ensured that attrition remains at tolerable limits. In addition, succession planning for key personnel ensures that attrition does not impact operations.

Legislation impacting availability of work permits or imposing excessive costs for the same could lead to material impact on deliverables to clients. A major portion of revenues are in foreign currencies and a significant portion of expenses are in Indian Rupees. Judicious hedging against adverse foreign exchange exposures helps the business to minimise the impact of exchange volatility.

There is a risk of non-compliance in the geographies where Mindtree operates, due to changing regulations. Additionally, data privacy laws across the globe are evolving. Mindtree has a dedicated in-house compliance team that manages compliance globally and it engages with specialist consultants across the globe, who support in adhering to country-specific compliance and regulatory requirements.

Cyber risk has emerged as a top risk across industries with threats of hacking, ransomware, social engineering and other cyber-attacks. To mitigate this, controls are implemented in Mindtree to secure IT infrastructure, viz. intrusion-prevention systems, firewalls, anti-malware software, content filtering gateways, data encryption, data leakage protection systems and 24/7 monitoring.

## Outlook

The 2021 forecast reflects the expectations of a vaccine-powered strengthening of activity and additional policy support in a few large economies. However, surging infections recently in the form of a second wave (including new variants of the virus), renewed lockdowns and logistical problems with vaccine distribution are important counterpoints to the favorable view.

According to the Congressional Budget Office, the US GDP is expected to grow 3.7% in 2021 after a de-growth of 2.5% in 2020. According to the European Commission Winter 2021 economic forecast, the Euro economy is expected to grow by 3.8% in both 2021 and 2022. With



*Headquartered at Knowledge City, Vadodara, L&T Technology Services helps clients gain the competitive edge by building smart products, enabling smart manufacturing and offering smart services*

containment measures still in place, Euro area economies are expected to contract in the first quarter of 2021. The UK is expected to grow 4.5% in 2021, after contracting by 10% in 2020. Emerging market and developing economies are also projected to trace diverging recovery paths.

The Indian economy is showing early signs of a recovery, owing to the large public stimulus spends, revival of consumer confidence, robust financial markets and an uptick in manufacturing activity. However, given the resurgence of Covid-19 infections affecting many states in the form of a second wave, the economic recovery would entirely depend upon how the country is able to control the pandemic and also on successful vaccination efforts.

Interestingly, as the industry looks forward at leaner structures with more flexibility and faster adoption of cloud-based products and services in 2021, 60% of the industry CEOs expect larger digitisation deals in 2021, with investments likely to recover in core sectors, including BFSI, Retail and Manufacturing. 67% of CEOs polled in a NASSCOM 2021 CEO Survey expect global India's technology sector to grow significantly higher in 2021 as compared to 2020.

Mindtree's commitment to deliver superior client satisfaction as well as consistent and competitive profitable growth remains stronger than ever. The competitive situation today dictates investing is imperative to be future-ready as part of a growth strategy. The business will ensure optimal capital

allocation towards value capture, including Mergers and Acquisitions that will provide access to niche capabilities, enable specific geo-penetration, talent and service its clients by broadening offerings. Mindtree's 3 strategic pillars, namely Simplify, Differentiate and Change, coupled with creation of 4x4x4 focus areas across 4 Industry Groups, 4 Service Lines and 4 Geographies, will drive a differentiated-value proposition and unmatched services to its clients.

## L&T TECHNOLOGY SERVICES

### Overview:

L&T Technology Services Limited (LTTS) is a leading global pure-play Engineering Research and Development (ER&D) services company. It offers consultancy, design, development and testing services across the product and process development life cycle.

LTTS provides services and solutions in the areas of mechanical and manufacturing engineering, embedded systems, engineering analytics and plant engineering. LTTS' customer base includes 69 Fortune 500 companies and 53 of the world's top ER&D companies active across industrial products, transportation, telecom & hi-tech, medical devices and plant engineering. Its technologists work with global firms to offer smart solutions and services that help accelerate new product development, facilitate remote asset management and enable virtual product design and prototyping.



*LTTTS' Creative Think Studio showcases design aspects of the product to create delightful customer experiences*

The key differentiators for LTTTS' business are its value-maximising customer-centric innovations, domain expertise and a multi-vertical presence spanning major industry segments:

**Transportation:** LTTTS' Transportation engineering services are enabling OEMs worldwide build innovative next-generation vehicles and aircraft and achieve a faster time to market by leveraging cutting-edge digital technologies and solutions.

In the automotive sector, LTTTS helps its customers through robust and reliable platforms and solutions in rapidly emerging areas such as Electrical Vehicles (EV) technologies, Advanced Driver Assistance System (ADAS) and Autonomous Drive (AD). LTTTS' expertise also covers telematics and connectivity, infotainment, powertrain and end-to-end design and development of automotive components.

LTTTS has over a decade of domain expertise in the Trucks and Off-highway segment, and offers services across industries such as construction and mining, cranes and material handlers, commercial vehicles, agricultural and gardening equipment, powersports and polymer.

In the Aerospace sector, LTTTS' offerings encompass a wide spectrum, including aero engines, aero structures and systems, avionics, air traffic management systems and new-age digital transformation solutions. LTTTS'

engineering and digital solutions help Aerospace OEMs and Tier1 manufacturers maximise ROI, meet compliance standards, increase quality and stay competitive in an extremely dynamic ecosystem.

**Industrial Products:** LTTTS supports global customers across building automation, home and office products, energy, process control and machinery with its deep domain expertise across software, electronics, connectivity, mechanical engineering, industrial networking protocols, User Interface / User Experience (UI/UX), test frameworks and enterprise control solutions. LTTTS is working with customers in this space on important initiatives such as energy sustainability to help them achieve net carbon-zero status. LTTTS is also involved in supply chain optimisation and standardisation as customers look for alternative sourcing and is active in the digital manufacturing space for delivering smarter and innovative ways of production.

**Telecom & Hi-tech:** LTTTS' Telecom and Hi-tech vertical provides engineering services and solutions that cater to five key domains: Telecom, Consumer Electronics, Semiconductor, ISV, and Media & Entertainment.

For the Semiconductors industry, LTTTS' futureproof solutions and IC designs deliver cutting-edge VLSI IPs for camera, storage, display and interface solutions and also provides hardware system design, platform software, modem services, verification and validation, multimedia,



*LTTS' Motor Dyne system conducts troubleshooting of power electronics*

connectivity, storage, mechanical engineering, and customer engineering support. For the consumer electronics segment, LTTS provides services in the areas of product conceptualisation, design and development, platform software, testing and certification, manufacturing support, product maintenance, and product launch support. For the Media & Entertainment industry, LTTS provides services in product engineering, product conceptualisation, design and development, testing and certification, manufacturing support, product maintenance, and value engineering. With Independent Software Vendors (ISV), LTTS undertakes application engineering, VLSI, cloud engineering, product uplift, platform development & migration, product support, testing and certification.

**Plant Engineering:** LTTS provides end-to-end solutions in the areas of design, engineering, project management, and handover operation and maintenance and delivers custom digital solutions over the plant lifecycle. As an Engineering, Procurement, and Construction Management (EPCM) services specialist, LTTS supports every phase of a plant's lifecycle from conceptualisation to commissioning. LTTS' digital solutions further enable manufacturers to upgrade and integrate their legacy systems to smart platforms that drive state-of-the-art connectivity and synergy.

**Medical Devices:** LTTS helps medical device OEMs address various industry challenges, including the

acceleration of product development cycle, reduction of time-to-market, value engineering, and product launches in various geographies in compliance with the regional regulatory requirements. LTTS works with global medical device manufacturers and healthcare companies to offer solutions around remote medical care, regulatory compliances and approvals, in-vitro diagnostics, patient mobility solutions, surgical services, home healthcare and the medical Internet of Things. LTTS also provides pre-compliance testing and validation support, including product / compliance remediation, complaint management, and regulatory documentation support.

## Business Environment

According to NASSCOM, ER&D companies worldwide have struggled to bear the brunt of the Covid-19 pandemic, with almost all key verticals registering a de-growth pattern. Global ER&D spend in 2020 stood at ~\$1.2 trillion, representing a 6% decline over 2019, the first year of decline since 2012, underscoring the deep impact on automotive, aerospace, energy and industrials.

While the manufacturing verticals bore the brunt of the pandemic, hi-tech and services-led verticals have stayed resilient and further accelerated investments in R&D initiatives to drive the digitisation journeys of their end customers. The Everest Group states that while there will be significant variations in the recovery trajectories, global ER&D spending will reach pre-Covid-19 levels by the end of 2021.



*At LTTS' Imaging Lab, engineers develop various Innovative AI-based imaging solutions*

Digital engineering is seeing significant traction (~20% growth) with Industry 4.0, digital thread / digital twins and cloud engineering services and solutions driving the growth trajectory. LTTS benefits from having a set of well-defined offerings in the ER&D sector. With established credentials as innovation providers and leveraging its cross-industry experience, LTTS is poised to continue providing a unique proposition to clients across industries.

LTTS' strength in Engineering and Technology is underscored by the various ratings by key industry experts such as Zinnov, Everest, ISG, ARC, IDC and NelsonHall, who have consistently rated LTTS as a leader across various categories.

## Major Achievements

Despite the challenging period due to the Covid-19 pandemic, LTTS has had major deal wins across all the verticals. Large deal bookings were also high, helped by a marquee \$100mn plus deal in the oil & gas sector.

## Order Wins

### Transportation

- LTTS has entered into a new area of telematics with a leading European automotive OEM, covering testing of the automobile maker's next generation of telematics units and setting up a new laboratory in Munich.
- LTTS was awarded a product engineering services deal to develop autonomous solutions for a global provider

of automotive technology and set up a CoE for the development and sustenance of legacy engineering software applications.

## Industrial Products

- Schindler selected LTTS as its key partner to provide innovative digital engineering capabilities. LTTS is providing product development, innovation and engineering services and solutions to enable Schindler accelerate its digitisation and connectivity initiatives.
- LTTS has won an Engineering Application Modernisation programme from a diversified American conglomerate to support the client's software-driven modernisation initiative. LTTS engineers will maintain and upgrade the company's existing suite of applications to make them mobile and cloud-enabled

## Telecom and Hi-Tech

- LTTS was selected as a strategic technology partner by one of the world's leading technology companies to carry out platform validation for its high-performance data centres as part of a joint CoE set-up.
- A global telecommunications company has selected LTTS as its engineering services partner to perform an end-to-end systems integration and offer allied engineering services for its global operations.



The IoT Innovation Hub in Bengaluru is where IoT solutions come to life – from connected workers to smart fuel dispensers

### Medical Devices

- A leader in healthcare devices and homecare has selected LTTS as a strategic global engineering supplier to assist in transforming its product portfolio. LTTS will bring its deep engineering domain expertise to support the customer on work streams for lifecycle management, new product development, digital engineering and quality and regulatory compliances.

### Plant Engineering

- LTTS won a deal with a TCV of \$100 million plus from a global oil & gas major to be the primary engineering partner in supporting two of the customer's integrated refining and chemicals manufacturing facilities in the USA.
- One of the world's top plastics, chemicals and refining manufacturers has awarded LTTS a multi-year plant engineering engagement to implement digital twin modelling for its capital projects spread across 20+ sites in North America.
- LTTS has been chosen as strategic partner by a world leading engineering and construction oilfield services company to carry out multi-disciplinary engineering activities for its capex and opex projects globally.

### Awards and Recognition

- Two of LTTS' digital solutions – Chest rAI™ and i-BEMS™ – have been recognised with the 2021 BIG Innovation Awards in the 'Product' category presented by the Business Intelligence Group, USA.
- The Everest Group has positioned LTTS as a Leader in the Development, Verification & Validation, Deployment and System Integration Industry 4.0 Services PEAK Matrix® Assessment 2020.
- Zinnov Zones rated LTTS as 'Leader' across Digital Engineering, IoT, AI and Digital Thread', and also named LTTS as Leader in 6 major verticals for the fourth consecutive year.
- LTTS' i-BEMS™ solution was the recipient of Frost & Sullivan's Customer Value Leadership Award for Global Smart Building Optimisation & Experience Management.
- LTTS registered wins across multiple categories in the 17th Stevie® International Business Awards including the most 'Innovative Tech Company' of the year.

### Significant Initiatives

LTTS has invested significant time and effort in strategic initiatives that will propel its technology footprint, engineering infrastructure and human resources, with the



*By leveraging AR/VR technologies, LTTS empowers manufacturers to gain insights into plant models by enabling review of plant design and layout*

end goal of providing a differentiated experience to its customers.

- Amazon selected LTTS as a consulting and professional services provider to support Alexa integration in various connected devices spanning multiple domains and industries.
- LTTS, in association with Tenneco's DRiV™ Ride Performance Division, inaugurated the DRiV HUB Development Centre at LTTS' Bengaluru delivery centre. LTTS is creating engineering tools to support DRiV in developing intelligent suspension technologies to build next-generation ride-control solutions.
- LTTS set up a dedicated Skywise center for Airbus after the global aerospace manufacturer selected LTTS to provide technology and digital engineering solutions for its Skywise platform. The center will develop cutting-edge digital transformation solutions for aviation industry.
- LTTS set up and virtually launched a state-of-the-art Electric Vehicle (EV) Lab at its Bengaluru design centre to help customers across the globe evaluate and verify the performance, endurance and electromagnetic compatibility of EVs.

### **Environment, Health and Safety**

LTTS has aligned its sustainability goals with that of its parent, L&T, with the objective of contributing to the

creation of a sustainable world by minimising environmental impact, maximising social outreach and offering sustainable solutions. As part of this roadmap, LTTS is constantly undertaking various initiatives in the areas of water and energy conservation as well as efforts to reduce its carbon footprint.

From water-cooled chillers, occupancy sensors, LED lighting, and elevator operation optimisation to pressmatic taps, wastewater treatment and leveraging technology to reduce travel and logistics requirements, LTTS ensures optimal measures to safeguard the environment. LTTS also follows and implements all the industry standards, protocols and best practices to ensure health, safety and well-being of its workforce of over 16,000 employees.

### **Human Resources**

LTTS' robust HR policies helped enable Work from Home (WFH) for 90% of its employees within a week of lockdown restrictions being announced. With WFH taking precedence, HR introduced many programmes across regions for employees to help cope with the stressful lifestyle changes.

- LTTS launched the weCare App to track and monitor the safety and health of employees and their immediate family members, while ensuring employee data safety.
- LTTS launched Omni Opus™ WFX Certified Professional – a customised certification programme to enable managers to not only manage projects remotely, but also manage



*LTTTS' holistic and solutions-led digital framework empowers manufacturers to tackle various challenges in the new normal*

their team members and their aspirations through the digital mode.

Global Engineering Academy (GEA) was started to impart technology education and competency development to the employees, which would be aligned to the business needs of LTTTS. The platform offering training across 16 technology tracks will help engineers to re-skill and re-orient themselves to keep pace with rapid technology changes and help advance their careers.

LTTTS conducted the 4th edition of its annual open innovation challenge for engineering students TECHgium®: The first-ever virtual TECHgium® saw a record-breaking participation this year, with over 22,500 engineering students and 2,362 faculty members from 354 reputed institutes.

### Risks and Concerns

The economic slowdown in key geographies or cyclical downturns in key segments could materially affect revenue growth and profitability. The inability to innovate and develop new services and solutions to keep up with customer expectations and evolving technologies could result in lower growth traction. Cybersecurity risks could lead to data leakage, malware or ransomware attacks and loss of Intellectual Property. Changing immigration laws and policies can impact LTTTS' ability to provide services

to customers. Exchange rate fluctuations could further materially impact the results of operations.

### Outlook

Engineering and Technology is LTTTS' heritage, and LTTTS will further strengthen this by leveraging key technology trends to stay relevant in the marketplace for the coming years. LTTTS has identified six focus areas that will determine the scale of operations across industries over the next five years. These include:

1. Electric, Autonomous and Connected Vehicles
2. 5G
3. Digital Healthcare
4. Industry 4.0
5. AI/ML driven Smart Offerings
6. Sustainability

The Everest Group states that the global spending on digital engineering is expected to grow at a 12% CAGR over 2021-25 and cross \$400bn in 2025. Further, Digital engineering is expected to constitute over a third of the global ER&D spend by 2025.

Expertise in digital manufacturing and in digital products and services enables LTTTS to roll out end-to-end solutions for enterprises enabling faster time-to-market using



*With the help of simulation and Digital Twins, LTTs supports manufacturers to infuse smartness in their critical day-to-day operations*

accelerators such as machine learning and automation. These enable clients to move beyond the pilot stage to the entire offering lifecycle, spanning ideation, design, supply chain and aftermarket services.

Investment in key technology capabilities and partnerships and an innovation culture makes it possible for LTTs to collaborate with manufacturers and address their current

needs of doing more with less, delivering services remotely through data and cloud platforms, reducing design timelines and increasing production throughput.

LTTs aims to be the partner who can engineer the digital transformation for the customers, making them ready for the future.