

---

**ANNUAL  
REVIEW  
2 0 2 2**

---

#TechnologyForSustainableGrowth

## CONTENTS

L&T Group at a Glance	01	
Leadership Team	02	
Executive Committee (ECOM)	03	
<b>EPC PROJECTS</b>		
CONSTRUCTION	Heavy Civil Infrastructure Water & Effluent Treatment Power Transmission & Distribution Buildings & Factories Transportation Infrastructure Minerals & Metals L&T GeoStructure	07 11 15 19 25 29 31
ENERGY	Hydrocarbon Green Mfg & Development Power Plants & Equipment	32 41 42
<b>HI-TECH MANUFACTURING</b>		
Heavy Engineering	46	
Defence	Defence & Aerospace Defence Shipbuilding	54 55
<b>SERVICES</b>		
IT Services	LTI Mindtree	58 60
Technology Services	L&T Tech Services (LTTS)	62
Digital Services & E-Commerce Platforms	L&T SuFin L&T EduTech Data Center & Cloud Services	65 66 67
Financial Services	L&T Finance Holdings (LTFH)	68
<b>OTHERS</b>		
Realty	72	
Smart World & Communication	76	
Construction & Mining Machinery	77	
Rubber Processing Machinery	78	
Valves	79	
<b>SUSTAINABILITY</b>		
	80	



## LEADERSHIP TEAM



**A. M. Naik**  
Group Chairman



**S. N. Subrahmanyam**  
CEO & Managing Director



**R. Shankar Raman**  
Whole-Time Director &  
Chief Financial Officer



**Subramanian Sarma**  
Whole-Time Director &  
Sr. Executive Vice President  
(Energy)



**D. K. Sen**  
Whole-Time Director &  
Sr. Executive Vice President  
(Development Projects)



**M. V. Satish**  
Whole-Time Director &  
Sr. Executive Vice President  
(Buildings)



**J. D. Patil**  
Whole-time Director &  
Sr. Executive Vice President  
(Defence & Smart Technologies)



**T. Madhava Das**  
Whole-Time Director &  
Sr. Executive Vice President  
(Utilities)



**S. V. Desai**  
Whole-Time Director &  
Sr. Executive Vice President  
(Civil Infrastructure)

## EXECUTIVE COMMITTEE (ECOM)



**S. N. Subrahmanyam**  
CEO & Managing Director



**R. Shankar Raman**  
Whole-Time Director &  
Chief Financial Officer



**Subramanian Sarma**  
Whole-Time Director &  
Sr. Executive Vice President  
(Energy)



**D. K. Sen**  
Whole-Time Director &  
Sr. Executive Vice President  
(Development Projects)



**M. V. Satish**  
Whole-Time Director &  
Sr. Executive Vice President  
(Buildings)



**J. D. Patil**  
Whole-time Director &  
Sr. Executive Vice President  
(Defence & Smart Technologies)



**T. Madhava Das**  
Whole-Time Director &  
Sr. Executive Vice President  
(Utilities)



**S. V. Desai**  
Whole-Time Director &  
Sr. Executive Vice President  
(Civil Infrastructure)



**Hasit Joshipura**  
Sr. Vice President & Head  
Corporate Centre



**Shrikant Joshi**  
CEO & Managing Director  
L&T Realty Limited



**Anil V. Parab**  
Sr. Vice President & Head  
Heavy Engineering

## EPC PROJECTS

Larsen & Toubro has acquired a high degree of expertise in undertaking projects of unprecedented scale, scope, and sophistication on an EPC (Engineering-Procurement-Construction) basis across the construction and hydrocarbon spectrums as well as power plants and equipment. L&T collaborates with global majors for the design and execution of projects, and is a leader in the EPC world.



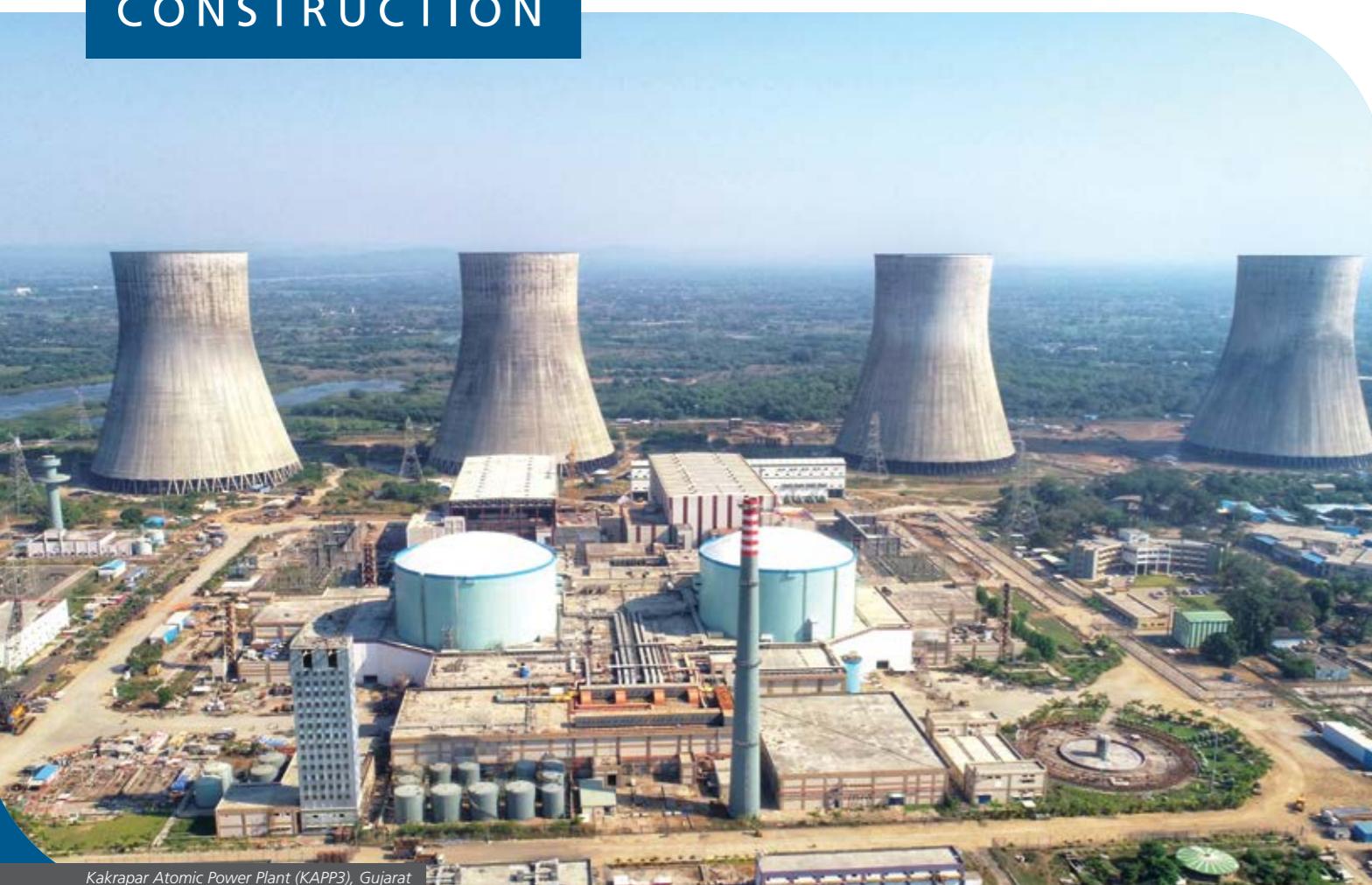
### CONSTRUCTION

### ENERGY



From infrastructure projects to offshore oilfields to power plants, L&T's range of EPC solutions is powered by an array of unmatched in-house design-to-delivery capabilities.

# CONSTRUCTION



Kakrapar Atomic Power Plant (KAPP3), Gujarat

Many landmark projects in India – and increasingly overseas – bear L&T Construction's indelible stamp of excellence – reflecting a track record spanning several decades.

The multiple businesses of L&T Construction have distinct but complementary capabilities, addressing different segments of infrastructure and industry.

L&T Construction executes projects on a turnkey basis, with single-source responsibility, adopting innovative design engineering and a global supply chain. Digitalisation,

mechanisation and the ability to mobilise large, highly-trained crews enable it to meet stringent deadlines and rigorous standards. At every project site and establishment of L&T Construction, the highest priority is accorded to the environment, health, and safety.

A safe work culture is intensively propagated to conform to – and even surpass – international standards.

HEAVY CIVIL INFRASTRUCTURE

WATER & EFFLUENT TREATMENT

POWER TRANSMISSION & DISTRIBUTION

BUILDINGS & FACTORIES

TRANSPORTATION INFRASTRUCTURE

MINERALS & METALS

Ranked amongst the top contractors, L&T Construction contributes significantly to building the image and stature of Larsen & Toubro across the world and driving L&T's reputation as 'the builder of the India of the 21<sup>st</sup> century'



Underground Section of Bengaluru Metro

## HEAVY CIVIL INFRASTRUCTURE

The Heavy Civil Infrastructure vertical of L&T Construction undertakes design, engineering, and execution of projects in several segments that are critical to the economy.

The business' in-house design strengths and unique construction methodology cells provide competent concept-to-commissioning solutions to meet the complex requirements of its customers.

L&T's Heavy Civil infrastructure vertical takes pride in building iconic structures, thus contributing to nation-building.



Mumbai-Ahmedabad High-speed rail



## KEY OFFERINGS

Metros | Special Bridges | High Speed Rail  
Nuclear Projects | Hydel and Irrigation  
Projects | Tunnel Projects | Ports, Harbours,  
and other Marine Structures

## SNAPSHOT

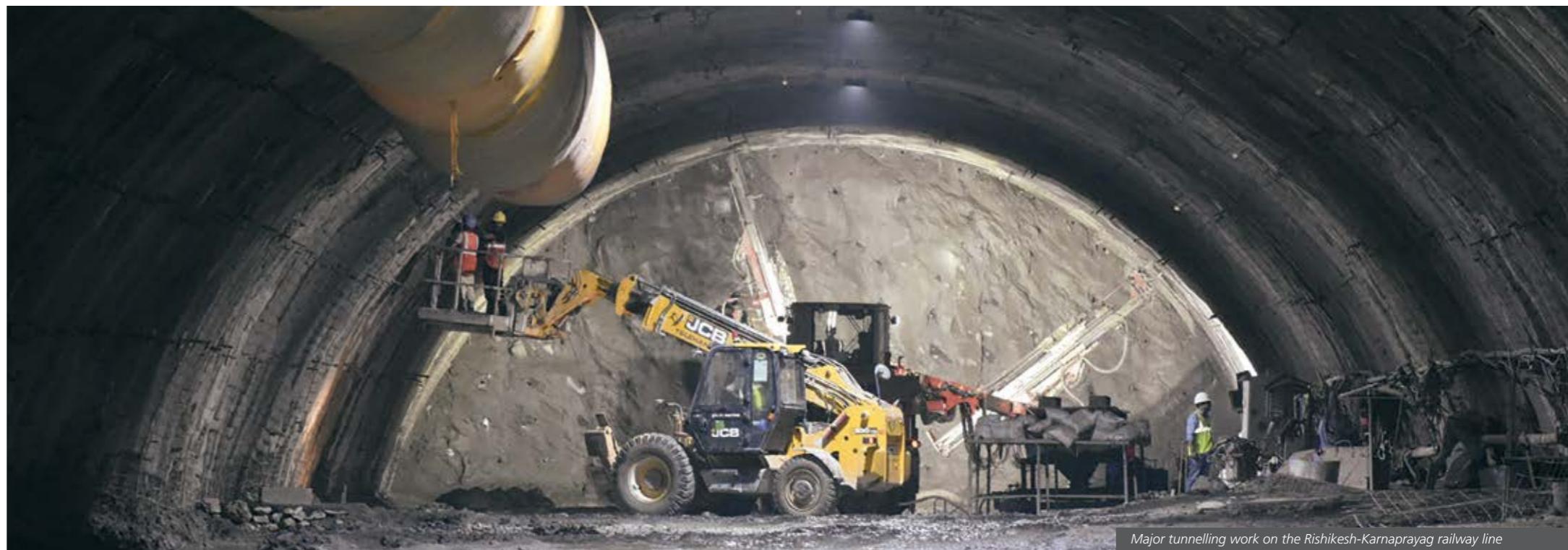
### KEY GEOGRAPHIES



### NEW ORDERS

**8** projects

- Mumbai-Ahmedabad High Speed Rail Project – Package C5
- Integrated Nuclear Recycle Plant, NRB, BARC
- Chennai Metro Phase 2 – 3 Packages
- Kudankulam SFSF
- Patna Metro – UG
- Delhi Metro – Phase 4, UG



Major tunnelling work on the Rishikesh-Karnaprayag railway line

### TRACK RECORD (including ongoing jobs)

**9**

<b>243 km</b>	<b>248 km</b>	<b>156 km</b>
High Speed Rail	Metro Projects (Elevated)	Metro Projects (UG)
<b>54 km</b>	<b>81 km</b>	<b>13</b>
Railway Bridges	Road Bridges	Dams / Barrages
<b>66 km</b>	<b>85 km</b>	<b>10</b>
Road / Rail Tunnels	Hydro Tunnels	Powerhouses and Caverns
<b>11.2 m dia.</b>	<b>220 m</b>	
India's largest TBM @ MCRP 4	Below ground level – one of the largest LPG underground storage caverns of its kind, and the first of its kind in South Asia	
<b>5</b>	<b>45 km</b>	<b>12 km</b>
Greenfield Ports Commissioned	Breakwater and Rock Structures	Berthing Structures
<b>3</b>	Shipyard Structures	



Mumbai Trans Harbour Link



Mumbai Coastal Road Project



## WATER & EFFLUENT TREATMENT

L&T Construction's Water & Effluent Treatment business provides complete solutions through its 'concept-to-commissioning' capability covering in-house design, detailed engineering, process know-how, procurement, impeccable project management and seamless execution, extending to virtually every area of the water, irrigation and wastewater spectrum.

### KEY OFFERINGS

Urban & Rural Water Supply | Industrial Water Supply | Water Treatment Plants  
Sewage Treatment Plants | Effluent Treatment Plants | Wastewater Collection Network | Desalination  
Micro & Lift Irrigation Projects | Water Management | Smart Water Infrastructure



318 MLD Waste Water plant, Coronation Pillar, New Delhi



Industrial Area Sewage Treatment Works, Doha, Qatar



40 MLD Common Effluent Treatment Plant at Ludhiana, Punjab

## SNAPSHOT

### KEY GEOGRAPHIES



### NEW ORDERS

22 projects

Rural water supply - 10

Urban water supply - 3

Industrial - 4

International - 2

Wastewater - 1

Large water - 1

Smart infra - 1

### COMPLETED PROJECTS

32

### TRACK RECORD (including ongoing jobs)

**9.3 Lakh**

Hectares of land being brought under irrigation

**7500 Hectares**

of smart infrastructure being developed

**5 lakh+ km**

Channelised Water and Wastewater Network

**7200 MLD**

of Water Treatment Plants

**95 million**

people benefitted

**2100 MLD**

of Wastewater Treatment Plants



400 kV Substation at Mawana, Botswana

## POWER TRANSMISSION & DISTRIBUTION

A leading EPC player in the field of transmission and distribution and solar energy, this business vertical offers integrated solutions and end-to-end services encompassing design, manufacture, supply, installation and commissioning. Its unique in-house capabilities include one of the world's largest tower manufacturing and testing stations and a proprietary tracker mechanism.

### KEY OFFERINGS

Transmission Lines | Substations | Underground Cable Networks | Distribution Networks  
Power Quality Improvement Projects | Solar PV Plants | Battery Energy Storage Systems  
Mini / Micro-grid Projects | Digital Solutions



230MW Solar PV Plant in Tamil Nadu for NTPC

## SNAPSHOT KEY GEOGRAPHIES



## DOMESTIC ORDERS 18 projects

- Distribution Modernisation Projects – 4
- Packages for Building Substation Clusters – 7
- Major Solar Plants – 2
- Transmission Corridor Projects – 5

## INTERNATIONAL ORDERS 22 projects

### Middle East

- Substation/STATCOM Projects – 9
- EHV Cable/OHTL Corridors – 4
- Solar PV Plant – 1

### Africa

- Substation Projects – 2
- Transmission Corridors – 3

### ASEAN

- Transmission Corridors – 2
- Substation Project – 1

## COMPLETED PROJECTS 45

- Major Transmission Corridors – 5
- Households Illuminated – 45,387
- Major Substation Projects – 34
- Major Solar Plant – 1

## TRACK RECORD (including ongoing jobs)

**42,800 ckm**

of Transmission Lines

**875 EHV**

Substations Including India's First  
**1200 kV AIS** and **765 kV GIS**

Over

**3.1 GWp**

of Solar Power Plants

**1 lakh+**

Habitations Electrified



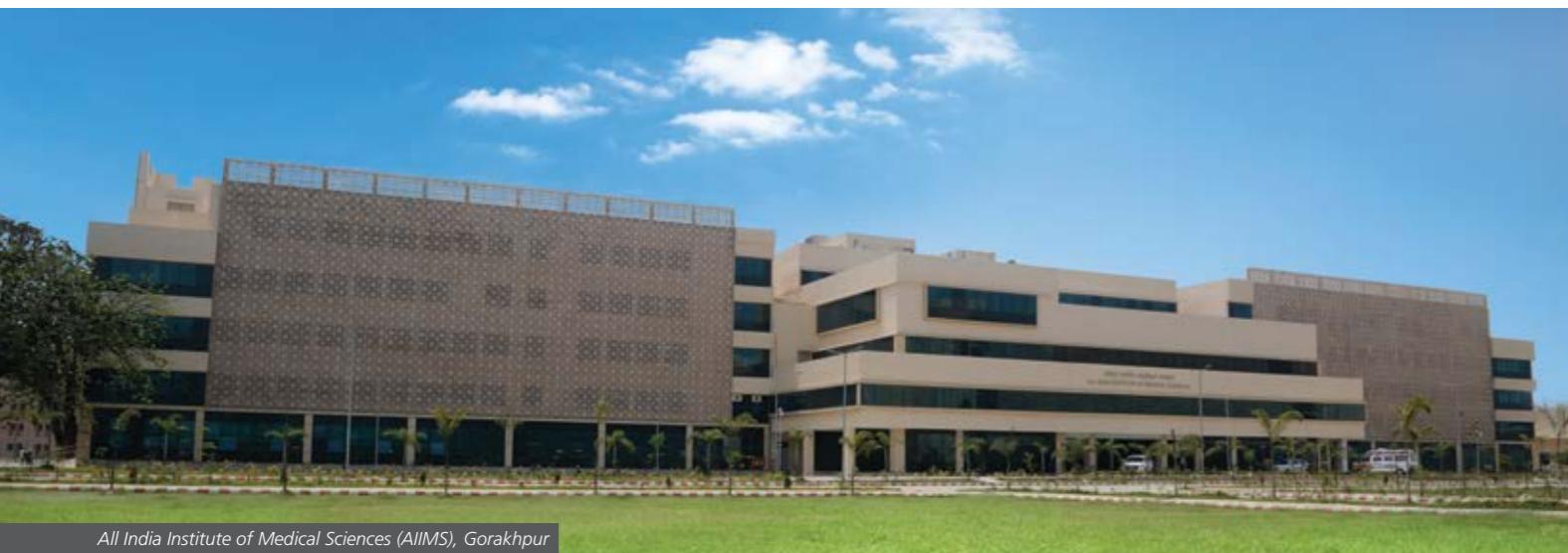
Transmission Line in Morocco



400-220 kV Substation at Myslendra, Bengaluru



Ghatampur-Hapur Transmission Line



All India Institute of Medical Sciences (AIIMS), Gorakhpur



Flight Control System (FCS) Complex at Aeronautical Development Establishment (ADE), DRDO, Bengaluru

## BUILDINGS & FACTORIES

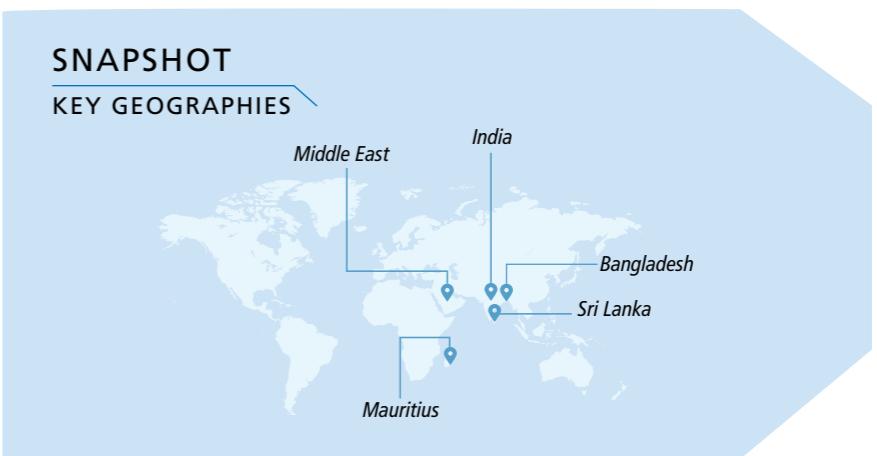
The expertise of this business vertical lies in offering 'turnkey solutions', from 'concept-to-commissioning' across the entire spectrum of urban infrastructure. Powered by dedicated engineering design centres, competency cells, advanced formwork systems, mechanised project execution, a wide network of consultants and vendors, digitised project control and a talented pool of employees, the business is an industry leader in its space in India and in targeted overseas markets.

### KEY OFFERINGS

Airports | Hospitals | Stadiums | Statues | Hotels | Institutional Buildings | Data Centres  
IT Parks and Office Buildings | High-rise Structures | Mass-housing Complexes, incl. Precast Housing  
Light Factory Structures and Cement Plants | Manufacturing Facilities | Test Tracks  
Warehousing Facilities | Fast-Track Modular Construction



T2, Bengaluru International Airport





## COMMISSIONED PROJECTS IN FY22

- Airport Terminals – 1
- Hospital Beds – 2,500 +
- IT Seats – 15,000 +
- Data Centre – 7MW (Infrastructure developed for 38 MW)
- Apartment Units – 2,700+
- Manufacturing Facilities – 2
- Modular Infrastructure – 1

## NEW ORDERS 25 projects

- Health – 4
- Public Spaces – 6
- IT and Office Spaces – 4
- Residential – 5
- Factories – 3
- International – 1
- Fast-Track Modular Construction – 2

## TRACK RECORD (including ongoing jobs)

**11**

International Airports

**25,000+**

Hospital Beds

**290,000+**

IT Seats

**76,500+**

Apartment Units

**85+**

Manufacturing Facilities





Integrated LRT System - Mauritius Metro Express

## TRANSPORTATION INFRASTRUCTURE

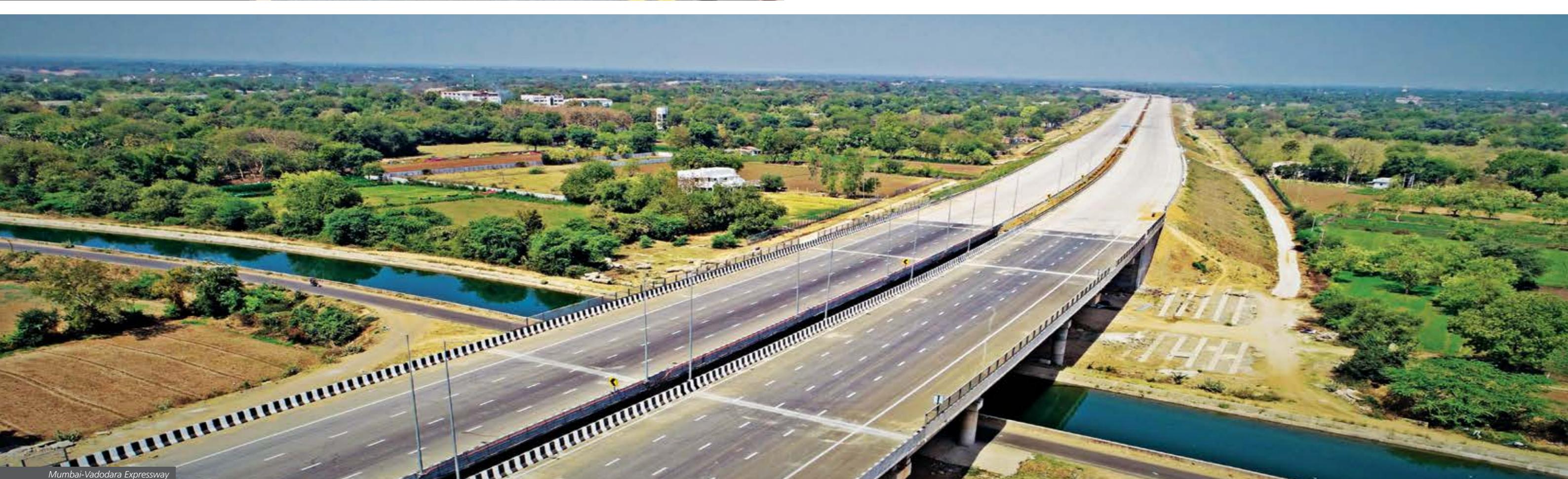
L&T's Transportation Infrastructure Business comprises two Strategic business Groups (SBGs) viz; Railway Business Group (RBG) and Road, Runways and Elevated Corridors (RREC)

RREC is one of the foremost builders of roads, elevated corridors and runways in India and the Middle East. We design and construct a wide array of elevated corridors, super structures, expressways, National and State highways, and complex road interchanges. We also design and construct airside infrastructure of both greenfield and brownfield airports for civil and defence purposes including runways incorporating CAT IIIB instrument landing systems, taxiways, aprons and service roads, Elevated Cross Taxiway (ECT) and Utilities and Auxiliary Systems.

RBG offers turnkey Design-Build / EPC solutions for Railway, Integrated Transit System, and E&M Systems for Urban Transit Project. For the JICA funded WDFC and World Bank funded EDFC, the SBG is executing mega projects on a Design-Build basis in Civil and Track work, E&M works, and S&T. Scale and speed have been the hallmark of these projects – executed through state-of-the-art mechanised methods. In the realm of Urban Transit, the SBG has executed a 29.5 km Integrated Transit System in Mauritius. The SBG has been associated with Systems works for various Transit Systems in India, Riyadh Metro and JICA funded Dhaka Metro System works including CBTC Signalling.

### KEY OFFERINGS

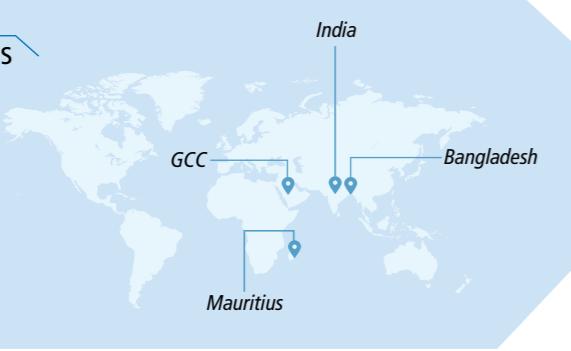
Roads & Bridges | Elevated Corridors | City Infrastructure (Transportation) | Runways (Airside Construction) | Integrated /Composite Railway Projects | Heavy Haul Dedicated Freight Corridors | System Integration - Mainline Projects | Integrated Mass Transit System (Metro / LRT / Monorail) | Systems Works & Integration - Mass Transit (Track, OHE, CBTC)



Mumbai-Vadodara Expressway

## SNAPSHOT

### KEY GEOGRAPHIES



## NEW ORDERS

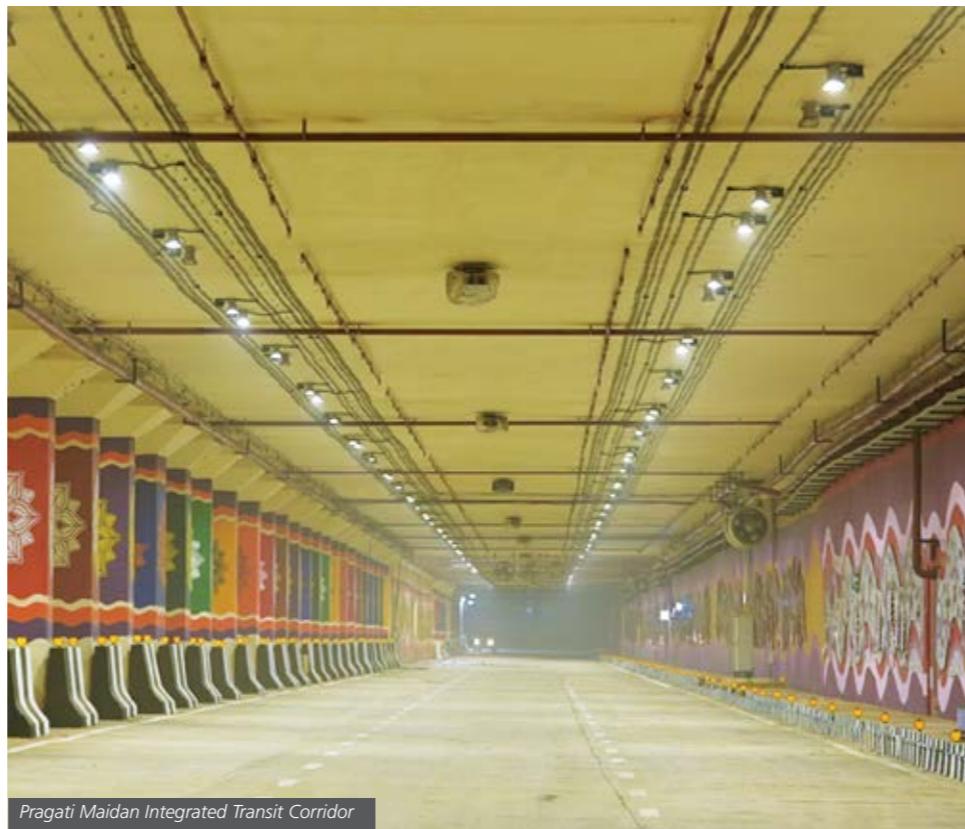
6 projects

Railway Construction (Track / OHE / S&T) – 1

Roads (Highways / Expressways) – 3

Metro (Track / OHE / S&T) – 1

High-Speed Rail (Track) – 1



Pragati Maidan Integrated Transit Corridor



Heavy Haul Freight at Western Dedicated Freight Corridor - Major Sections in Commercial Operation



Delhi – Vadodara Greenfield Expressway (Package – 22)



Systems Works including Overall Systems Integration - Dhaka Metro

## ONGOING PROJECTS

Highways – 1,493 Lkm  
Runways – 1.2 mn. sq. m  
Track Construction – 2265 Tkm  
Electrification – 6045 Tkm

## COMPLETED PROJECTS

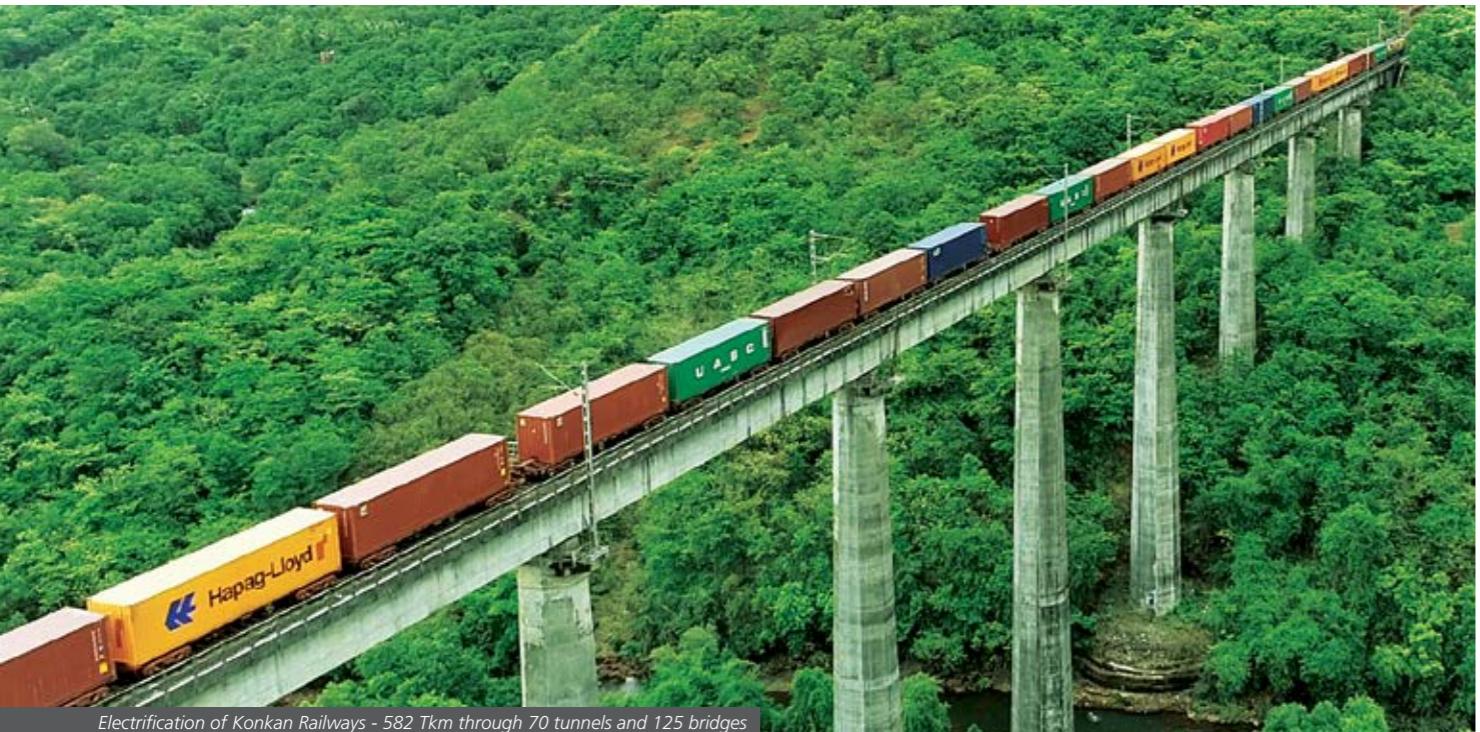
Highways – 21,085 Lkm  
Runways – 10.3 mn. sq. m  
Track Construction - 3603 Tkm  
Electrification – 14388 Tkm

## COMMISSIONED PROJECTS

5

Railway Construction (Track / OHE / S&T) – 2

Roads (Highways / Expressways) – 3



Electrification of Konkan Railways - 582 Tkm through 70 tunnels and 125 bridges



Mumbai-Nagpur Expressway

## MINERALS & METALS

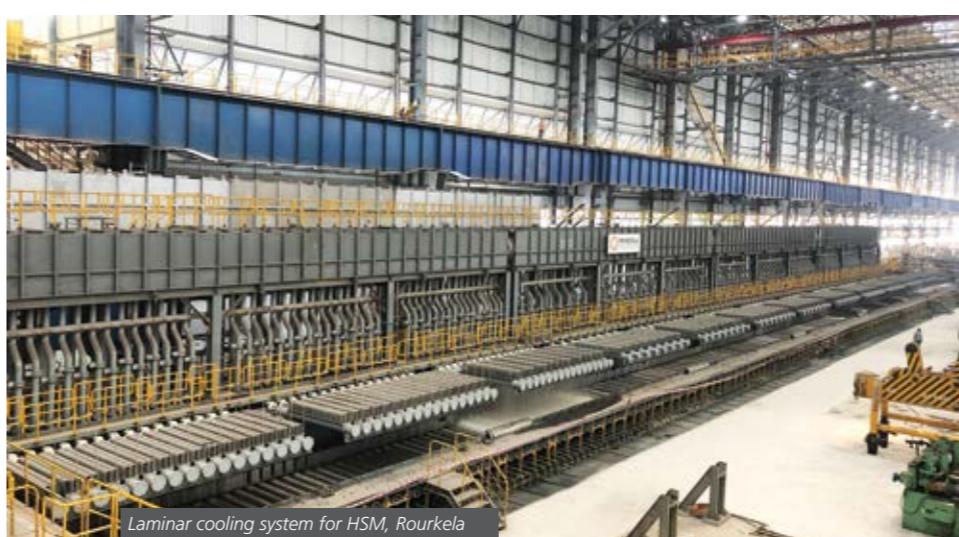
L&T's Minerals & Metals business is a leading EPC solutions provider in the fields of minerals, metals and finishing for large industrial, steel, aluminium, copper, zinc and gold complexes, associated facilities and the mining industry. The business offers integrated solutions for a wide range of systems and equipment for Cement, Mining and Steel sectors, powered by in-house design, engineering, manufacturing, construction and commissioning capabilities.

## KEY OFFERINGS

Mineral Beneficiation | Iron and Steel Making | Aluminium, Zinc, Copper, Gold Smelters & Refineries  
Speciality Conveyors | Equipment for Mining, Cement and Material Handling



Mansourah - Massarah gold project



Laminar cooling system for HSM, Rourkela



Surface Miner KSM 304 at Dangote, Ethiopia

## SNAPSHOT

### KEY GEOGRAPHIES



### NEW ORDERS

63 projects (FY 21-22)

- Domestic Projects – 4
- Surface Miners – 5
- Crushing Solutions – 22
- Sand Plants – 19
- Material Handling Equipment – 13

### COMMISSIONED PROJECTS

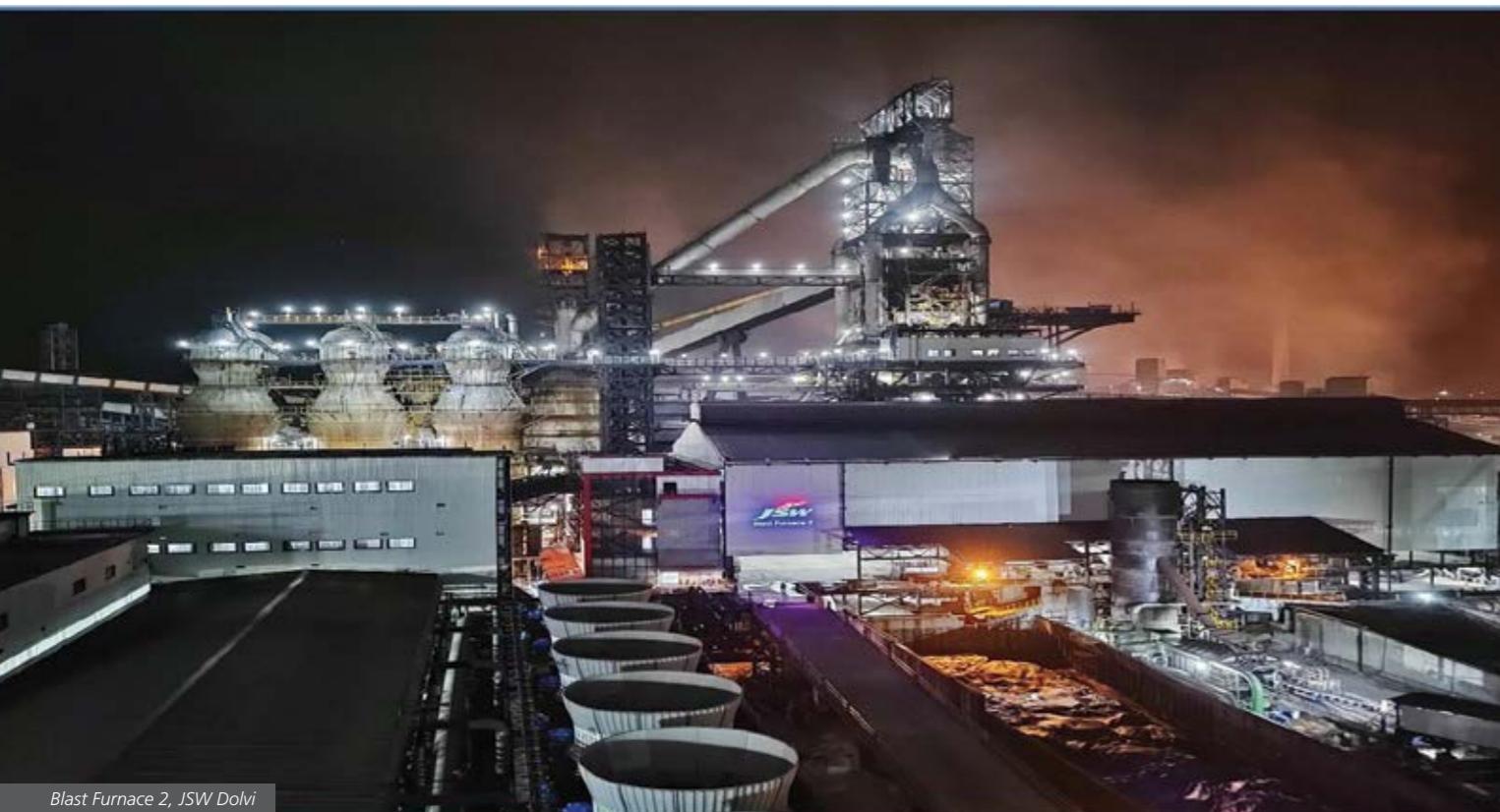
34

- Ferrous & Non-ferrous – 8
- Material Handling Plants – 1
- Sand Plants – 11
- Crushers – 7
- Surface Miners – 7



### TRACK RECORD (including ongoing jobs)

<b>18</b>	<b>38</b>	<b>10</b>
Blast Furnaces	Million Tonnes of Hot Metal (Iron) making	Rolling & Finishing line
<b>13</b>	<b>104</b>	<b>8</b>
Mineral Beneficiation Plants, Crushing & Screening Plants	Material Handling Plants	Ash Handling Plants
<b>126</b>	<b>1000+</b>	<b>12</b>
Wagon Tipplers	Crushers	Coke Ovens
<b>12</b>	<b>10</b>	<b>9</b>
Steel Melt Shops & Casters	Sinter and Pellet Plants	Al/Zn Smelter Refinery Plants
<b>489 Km</b>	<b>156</b>	
Conveyors	Stockyard Equipment	
<b>48</b>	<b>89</b>	
Sand Plants	Surface Miners	



Blast Furnace 2, JSW Dolvi

## L & T GEOSTRUCTURE

This business vertical specialises in executing geostructures such as piling, diaphragm walls, embedded retaining structures, ground improvement works for projects across sectors comprising marine and intake structures, dams and bridges. The business has unique expertise in plastic concrete design and execution of deep diaphragm walls. It engages in consultative selling by providing alternative designs and cost-effective solutions with the help of a robust in-house design team. It has a large fleet of high-end hydraulic rigs, RCD rigs, trench cutters, various capacity vibro-hammers and other ground engineering equipment to execute challenging projects, both in terms of complexity and time.

### KEY OFFERINGS

Large Diameter Bored and Driven Piles | Stone Columns and Vibro-compaction | Basement Structures | Marine Structures Cut-off Walls | Composite Dams | Multi-cellular Intake Structures | Water Retaining Geostructures | Flood Protection Works



### NEW ORDERS SECURED

6



### ONGOING PROJECTS

16



### COMPLETED PROJECTS

3

Mumbai Trans Harbour Link, piling works

JSW EQ Berth, Paradip

Ground-improvement works for BPCL, Krishnapatnam



Chennai Metro Rail, at Greenways Road



# ENERGY HYDROCARBON



L&T's Hydrocarbon business, under L&T's Energy portfolio, offers integrated 'design-to-build' solutions for complex onshore and offshore hydrocarbon projects across multiple geographies. Its track record includes simultaneous execution of multiple, complex, large-value projects, meeting stringent delivery schedules, quality and safety norms. In-house capabilities are complemented by partnerships with global leaders, while its competitive strengths in project management, engineering, procurement, fabrication, manufacturing, construction, installation and commissioning, combined with best-in-class QHSE standards, enable it to consistently deliver on all parameters.

Safety remains a core value, and the business continues to deliver a strong HSE performance across domestic and international projects, remaining firmly committed to its Mission 'Zero Harm'. During FY 2021-22, the business continued its

OFFSHORE

ONSHORE

CONSTRUCTION SERVICES

MODULAR FABRICATION

AdVENT (ADVANCED VALUE ENGINEERING & TECHNOLOGY)

ASSET MANAGEMENT

## KEY GEOGRAPHIES



## NEW ORDERS

17

Offshore - 5

Onshore - 4

Construction Services - 4

Modular Fabrication - 3\*

AdVENT - 1\*

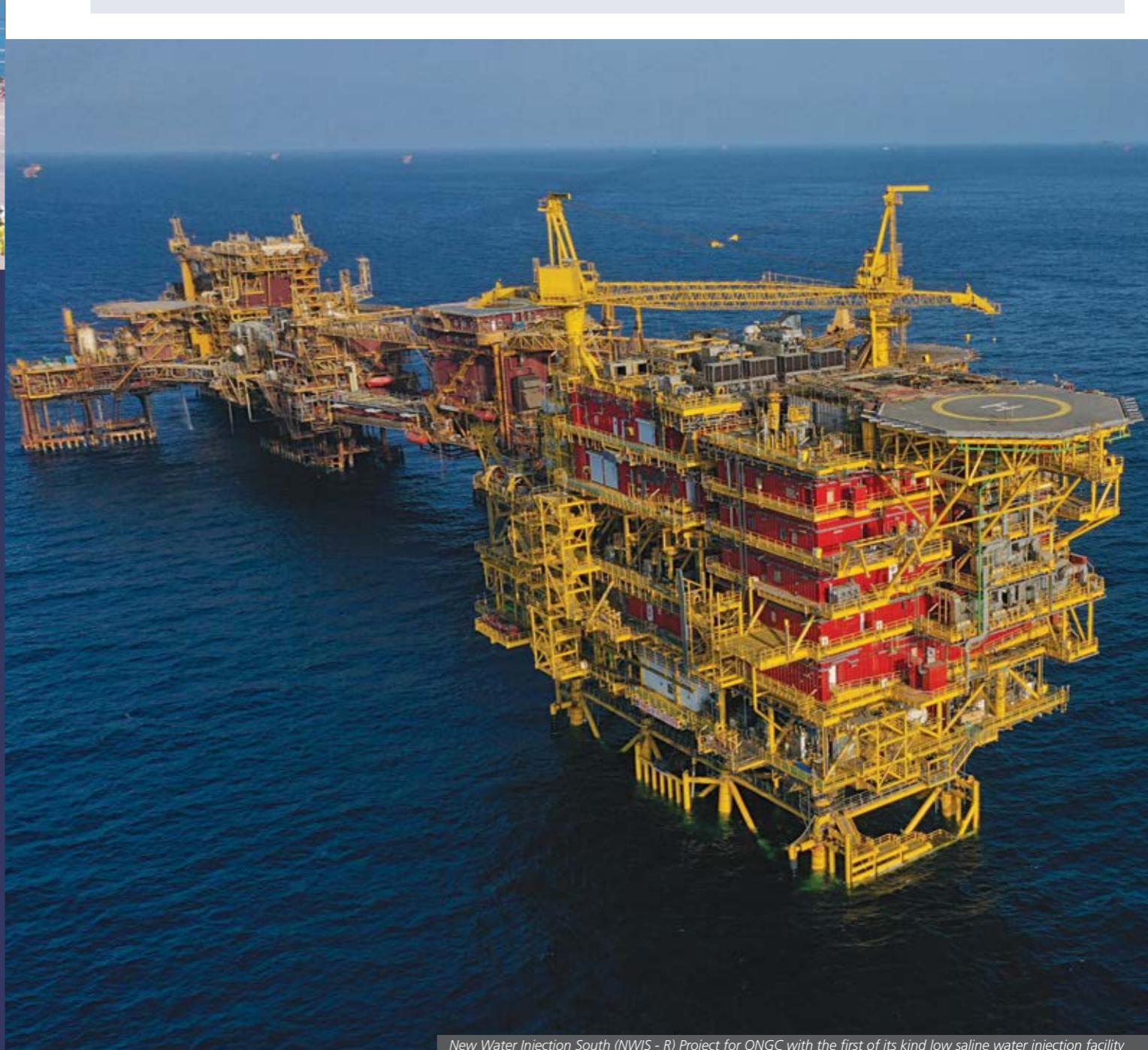
\*Project Value > ₹50 Mn

## SNAPSHOT

### COMPLETED PROJECTS

14

Offshore - 2 | Onshore - 2 | Construction Services - 2  
Modular Fabrication - 7\* | AdVENT - 1\*



## OFFSHORE

The business undertakes FEED and EPCIC projects encompassing the entire hydrocarbon value chain – from oil & gas production to processing. Its comprehensive engineering capabilities span the complete project life cycle, while its in-house modular fabrication facilities at three strategic locations impart flexibility in project control and cost-competitiveness. LTS 3000, a heavy-lift-cum-pipelay vessel and LTB 300, a pipelay-cum-work barge help expedite offshore installation, ensuring on-time completion of projects.

Leveraging on the expertise in offshore Oil & Gas projects, the business is carving out Offshore Wind Farms business to focus on emerging opportunities in the segment.

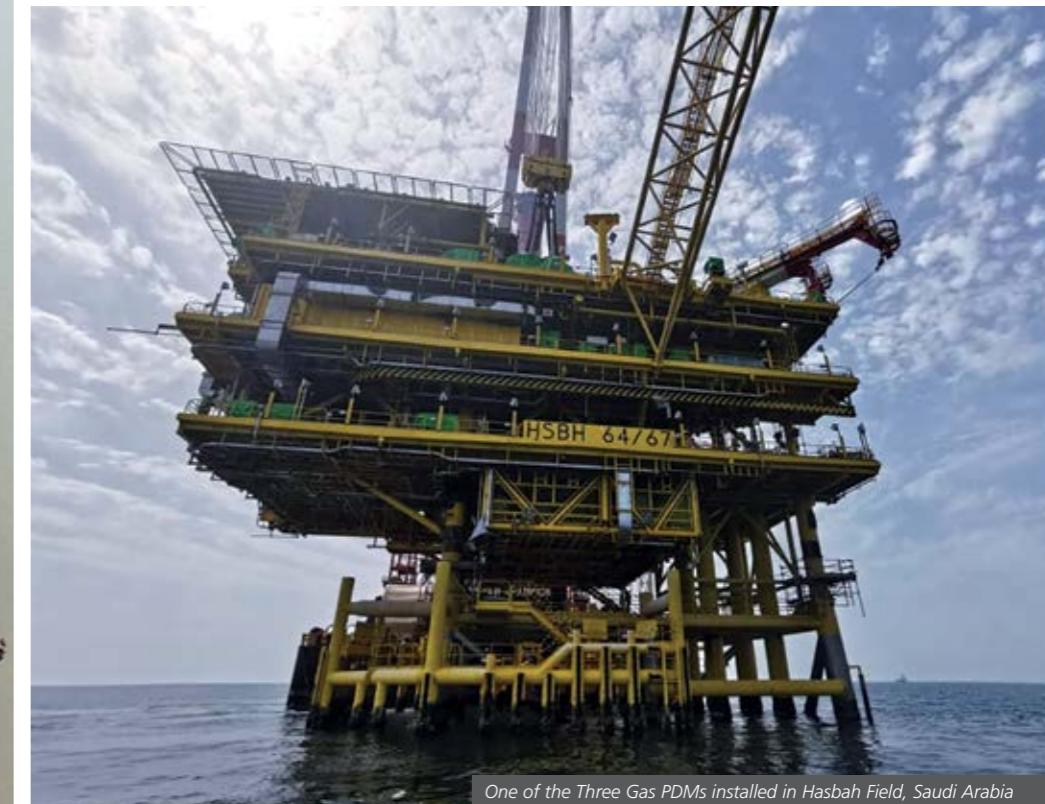
## KEY OFFERINGS

Process complexes and wellhead platforms | Gas compression modules | Subsea pipelines and systems | Brownfield and upgradation projects | Living quarters platforms | FPSO modules and jack-up rigs | Decommissioning solutions | Deepwater subsea manifolds and structures | Transportation and installation services



## TRACK RECORD

<b>10</b>	New Process Platforms	<b>78</b>	Wellhead Platforms (Jacket + Topsides)	<b>43</b>	Wellhead Topsides	<b>28</b>	Wellhead Jackets	<b>17</b>	Gas Compression Modules	<b>1770+</b>	Subsea Pipe Laying
<b>4</b>	Jack-up Rigs Refurbishment	<b>10</b>	Living Quarters	<b>2</b>	Deepwater Projects	<b>303</b>	Platforms Modifications	<b>8</b>	FPSO Topsides Engineering		



## ONSHORE

The business has in-house FEED, process and detailed engineering, procurement, fabrication, construction and commissioning (EPCC) capabilities built over three decades, delivering execution excellence for its customers worldwide. It has experience in executing projects based on technologies from leading global process licensors, and undertakes projects on a License + EPCC package basis, depending on the client's requirements.

### KEY OFFERINGS

Upstream oil & gas processing and treatment facilities | Petroleum refining projects | Fertiliser projects | Petrochemical projects | Cross-country pipelines and terminals | Cryogenic storage tanks and regasification terminals | Coal / pet-coke gasification projects



South West Gas Fields Development Project for Sonatrach, Algeria



Full Conversion Hydrocracker Unit for HPCL's Vizag Refinery

### TRACK RECORD

<b>50+</b>	<b>22</b>	<b>2</b>	<b>10</b>	<b>7000+ km</b>
Petroleum Refining Units				Cross-country Pipelines
Oil & Gas Processing Projects				
<b>10</b>	<b>9</b>	<b>10</b>	<b>83</b>	
Petrochemical Complexes				
Petrochemical Units				
Oil and Gas Terminals				
Syngas and Ammonia Projects				
Cryogenic Storage Systems				
Cracking Furnaces and Reformers				



Cracker Furnace Package for HPCL-Mittal Energy Limited (HTEL) at Bathinda



Ammonia-Urea Plant for HURL at Sindri, India

## CONSTRUCTION SERVICES

The business offers turnkey construction of refinery, petrochemical, fertilizer projects, gas-gathering stations, cross-country oil & gas pipelines and terminals, including LNG and oil storage tanks and underground cavern storage systems for LPG.

It offers innovative construction solutions with cutting-edge technology and digital monitoring. Its major capabilities include heavy-lift equipment erection competency, application of advanced welding technologies with high levels of automation, management of manpower and material in large volumes at construction sites and Quality / HSE systems conforming to international practices. Most projects executed take more than 10 million construction man-hours, culminating in over 100 million man-hours in a year.

### KEY OFFERINGS

Pile foundations | Complete civil and structural work, including pre-casting | Plant and non-plant buildings, including pre-cast buildings | Piping and mechanical works, including modular construction/erection | Complete electrical & instrumentation works | Tankages including LNG tanks | Cross-country and field development pipelines



Mangala Upgradation Facility-II Project for Cairn at Barmer, Rajasthan



New 48" Crude Transit Line from North Kuwait to CMM (TL-5) Project for KOC, Kuwait

## MODULAR FABRICATION

The business offers comprehensive Modular Solutions primarily for the offshore and onshore oil & gas industry and offshore wind farm projects. It leverages the rich and extensive experience of engineering and integrated project management systems of EPC businesses in combination with its world-class modular fabrication expertise.

Three strategically located Modular Fabrication Facilities – at Hazira (India's west coast), Kattupalli (India's east coast) and Sohar (Oman) – are equipped with state-of-the-art infrastructure and machinery for operations, fine-tuned execution procedures supported with digitalised processes and robust QHSE performance and have a combined annual capacity of around 200,000 MT (depending on the product mix). These facilities are accredited with global certifications and pre-qualifications from various oil & gas majors. These all-weather, waterfront facilities with captive load-out jetties offer year-round delivery of complex, large and heavy modules, structures and equipment on ocean-going vessels and barges, providing logistical flexibility, on-time delivery and cost-competitive solutions.

The Piping shop and the proposed Heavy-wall Pressure Vessel manufacturing shop in the Kingdom of Saudi Arabia will cater to the local market and help to develop local skills.

### KEY OFFERINGS

**Offshore:** Structures and modules for oil & gas and wind farm projects including deepwater subsea structures, jack-up rigs and Mobile Offshore Production Units (MOPU)

**Onshore:** Process and Piperack Modules | Skids | LNG Modules, Structures | Static Equipment | Modular Specialty Furnaces | Prefabricated Control Rooms / Substation Buildings (E-houses)



Onshore Process & Piperack Modules being loaded out from MFF Hazira for a Refinery in Thailand



Onshore Process & Piperack Modules under fabrication at MFF Kattupalli for a Gasification Plant in Singapore



Fabrication of sophisticated deepwater Manifold Modules done for the first time in India at MFF Kattupalli

## AdVENT

(ADVANCED VALUE  
ENGINEERING &  
TECHNOLOGY)

AdVENT is one of the business verticals established to offer value-added solutions to clients. It adds new dimensions in the areas of modular solutions, cutting-edge hydrocarbon technologies, hydrocarbon and specialty chemical industries. Leveraging the expertise in high-end engineering and execution of large-scale, technologically complex EPC projects over three decades and collaborating with well-organised R&D centres and renowned institutions, AdVENT strives to deliver comprehensive customer-centric solutions for the entire value chain of the hydrocarbon and emerging industries in the future.

AdVENT's technical capabilities and agility enable it to offer associated tailored value engineering solutions such as product modularisation, supporting customers in repurposing study of existing assets and adopting energy transition.

### KEY OFFERINGS

Full-spectrum Engineering | Technology Co-development and Commercialisation | Strategic Project Delivery | Integrated Modular Solutions | Emerging Technology-driven and Innovative Business Models Covering Refinery Technologies and Sustainable Waste-to-energy Solutions



World's first Refinery Off Gas to Ethanol (3G Ethanol) project for an Indian refinery

## ASSET MANAGEMENT

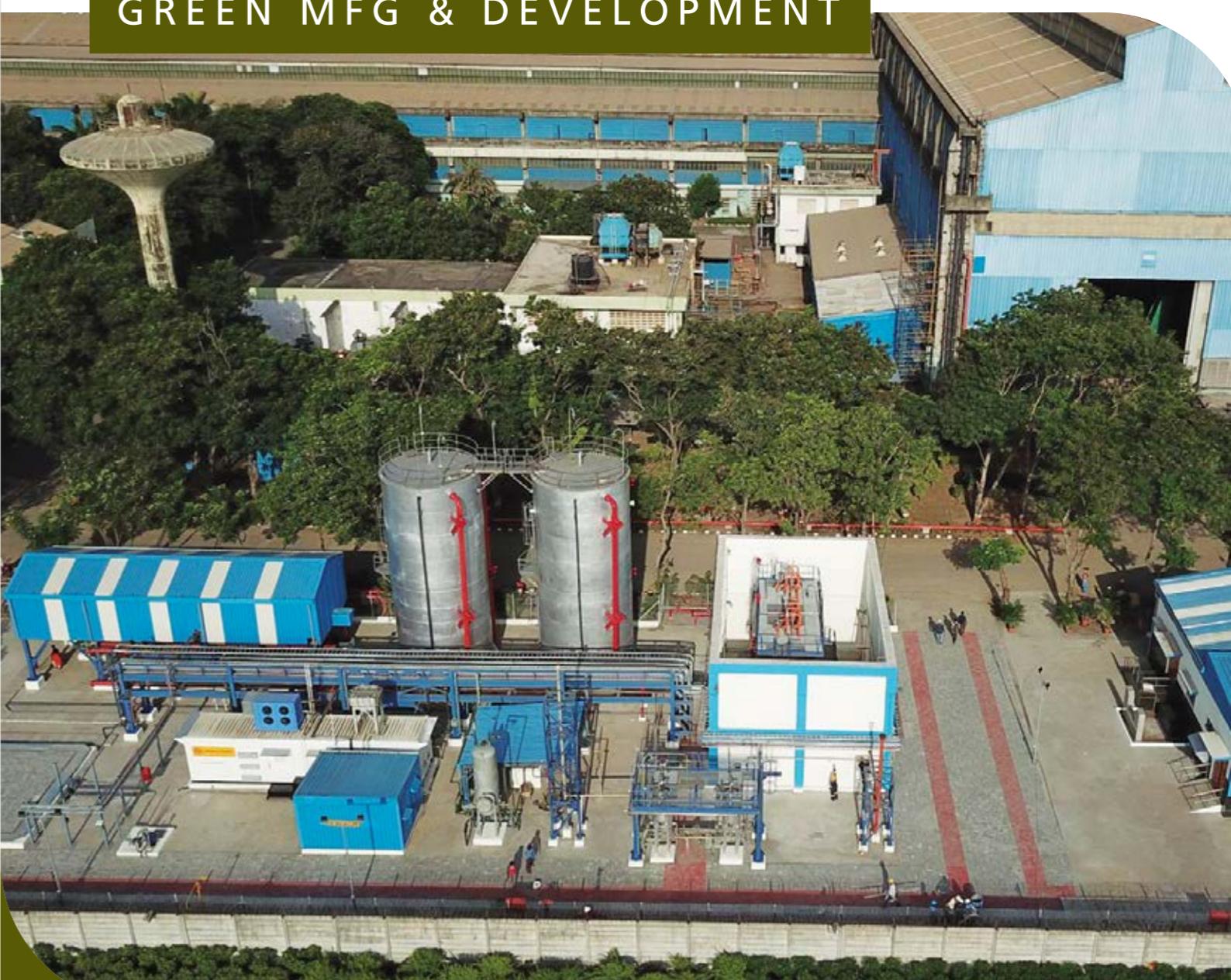
The Asset Management (AM) business delivers differentiated and value-adding services across a wide spectrum of solutions to the hydrocarbon and allied process industries. These comprehensive AM solutions extend the organisation's design, engineering, construction, and commissioning capabilities to cover operations, maintenance, performance enhancement and health assessment of critical assets. Thus, the business complements the organisation's EPC project offerings for a mutually beneficial engagement with clients over the entire lifecycle of assets.

The Asset Management portfolio provides a holistic approach to the solution delivery model and is based on three key differentiators, viz., comprehensive and cohesive processes, robust competence assurance plan and appropriate digital enablement.

### KEY OFFERINGS

Asset management consulting | Asset management (Operation & Maintenance) outsourcing | Asset integrity services | Asset performance improvement | Specialised services (start-up / commissioning, shutdown and turnaround, decommissioning, etc.)

## GREEN MFG & DEVELOPMENT



Green Hydrogen Plant at L&T's AM Naik Heavy Engineering Complex in Hazira, Gujarat

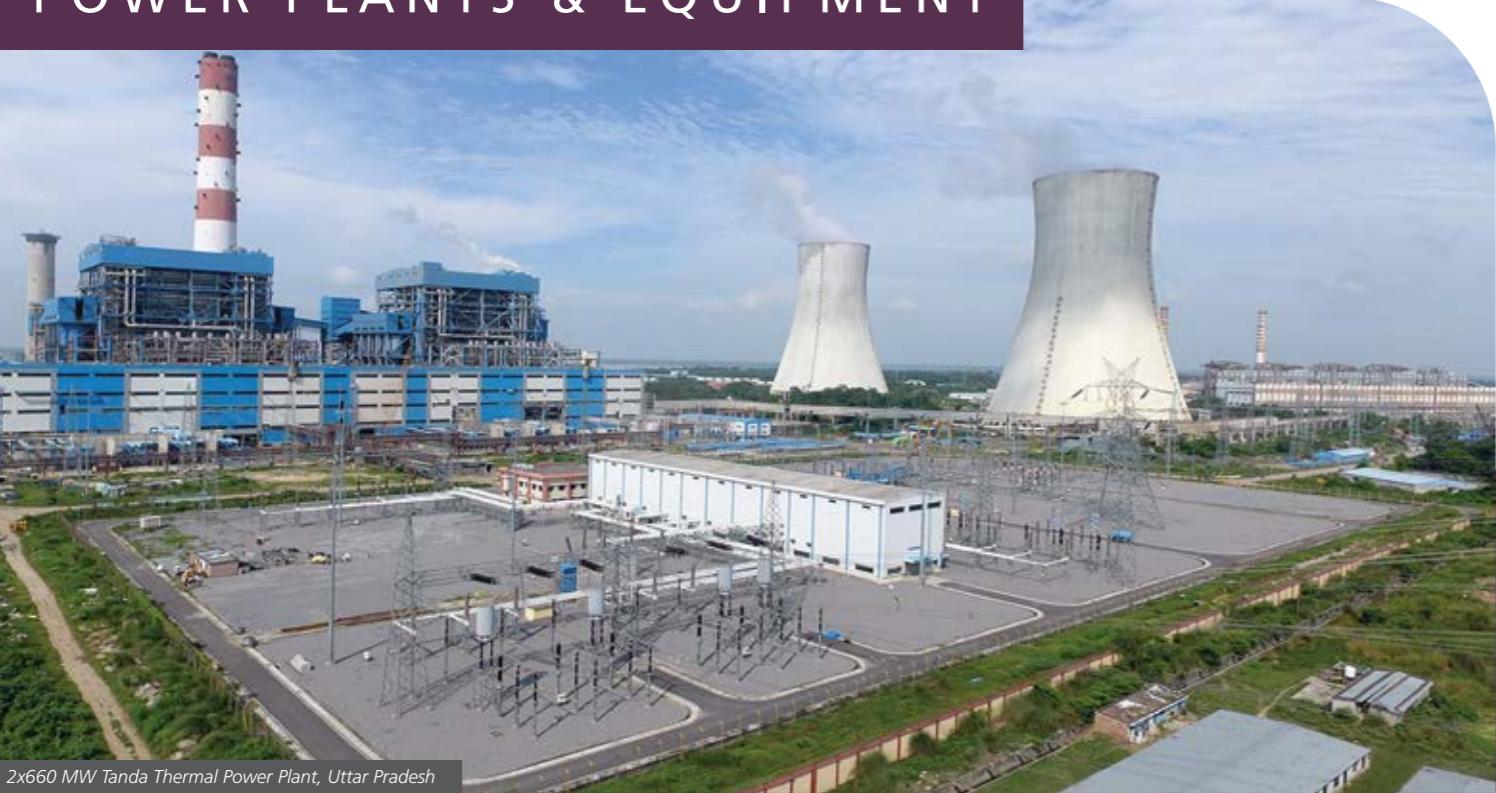
Green Mfg & Development business is positioned to be the single-point integrated solutions provider in the space of Green Energy and is focused to deliver offerings encompassing areas of Green Hydrogen and its derivatives. The business offers expertise on development of Green Hydrogen, Green Ammonia, Carbon capture and utilization technologies through L&T's

experience of executing complex and critical projects in Power (Conventional and renewable) and Hydrocarbon sector. Green Mfg & Development business shall also cater to EPC projects of other green energy adjacencies such as fuel cells and Biofuels.

### KEY BUSINESSES

**Development & EPC Solutions:** Asset Development for Green Hydrogen and its derivatives | EPC Projects for Green Hydrogen and its derivatives | Carbon Capture Utilization and Storage  
**Adjacencies:** Fuel Cells | Biofuels

## POWER PLANTS & EQUIPMENT



2x660 MW Tanda Thermal Power Plant, Uttar Pradesh

A proven, complete solutions provider for thermal power plants, L&T's power business vertical executes coal and gas-based power projects on a lumpsum turnkey basis. At its state-of-the-art facilities at Hazira in Gujarat, L&T and its joint venture companies manufacture ultra-supercritical / supercritical boilers, turbines and generators, pulverisers,

axial fans, air preheaters and air-pollution-control equipment. L&T also supplies and supervises standalone HRSG packages. International standards of safety and quality and on-time delivery are ensured by design and project management centres at Vadodara and Faridabad.

### KEY OFFERINGS

**Complete and package-wise EPC solutions for Power Plants:** Coal-fired | Gas-based | Nuclear Steam Turbine & Generator Island

**Air pollution control:** Flue Gas Desulphurisation (FGD) | Selective Catalytic Reduction (SCR) | Electrostatic Precipitators



400 MW Bibiyana-III Combined Cycle Power Plant, Bangladesh



2x660 MW Shree Singaji Thermal Power Plant (Stage-II), Madhya Pradesh

### KEY GEOGRAPHIES



### PARTNERS

#### L&T-MHI Power Boilers Private Limited

This JV with Mitsubishi Heavy Industries, Ltd., Japan engineers, designs, manufactures, erects and commissions ultra-supercritical and supercritical boilers.

#### L&T-MHI Power Turbine Generators Private Limited

This JV with Mitsubishi Heavy Industries, Ltd., Japan and Mitsubishi Electric Corp. Japan, engineers, designs and manufactures ultra-supercritical and supercritical turbines and generators.

#### L&T-Sargent & Lundy Limited

This JV with Sargent & Lundy L.L.C, USA, provides a complete range of engineering and design solutions for power plants.

### PROJECTS

New Contracts – 1

Commissioned – 1

Ongoing – 15

### TRACK RECORD

**19,000+ MW**

EPC of power plants



Boiler manufacturing facility at Hazira, Gujarat



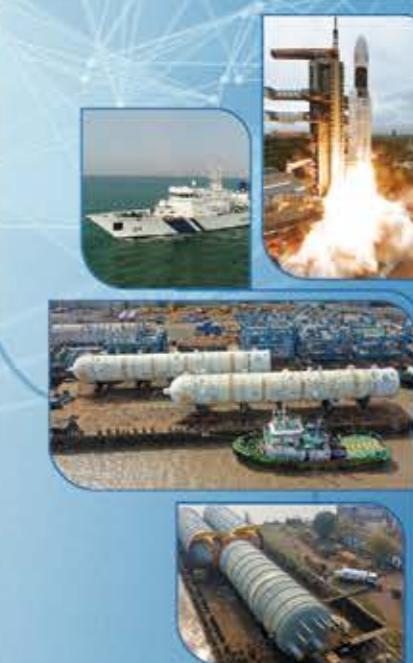
Turbine manufacturing facility at Hazira, Gujarat

## HI-TECH MANUFACTURING

L&T has established a reputation for the manufacture of a wide range of high-end technology, engineered-to-order equipment and systems for core industrial sectors. In-house R&D, collaborations with international majors, a dedicated engineering talent pool, global procurement set-up and world-class manufacturing facilities have enabled L&T to acquire and sustain a leadership position in many of its lines of business. Global quality accreditations and certifications affirm L&T's manufacturing prowess.

## HEAVY ENGINEERING DEFENCE

Across the decades, L&T's state-of-the-art facilities have manufactured the tallest, largest, heaviest equipment, setting global benchmarks in scale and sophistication.



## HEAVY ENGINEERING



Four Critical Propylene Oxide (PO) Reactors

L&T Heavy Engineering is global leader in the supply of the engineered-to-order hi-tech equipment needs of Refinery, Oil & Gas, Fertilizer, Petrochemical and Nuclear Plants for reactors, special heat Exchangers, proprietary internals, special fabrication and high end metallurgy pipe spools. The business has been at the forefront of introducing digital Industry 4.0 techniques, products and materials into the manufacturing sector for over eight decades. The dedicated engineering, procurement, project management and construction teams of our Modification, Revamp and Upgrade (MRU) business offer technology-driven, quick, value-added solutions for process plants.

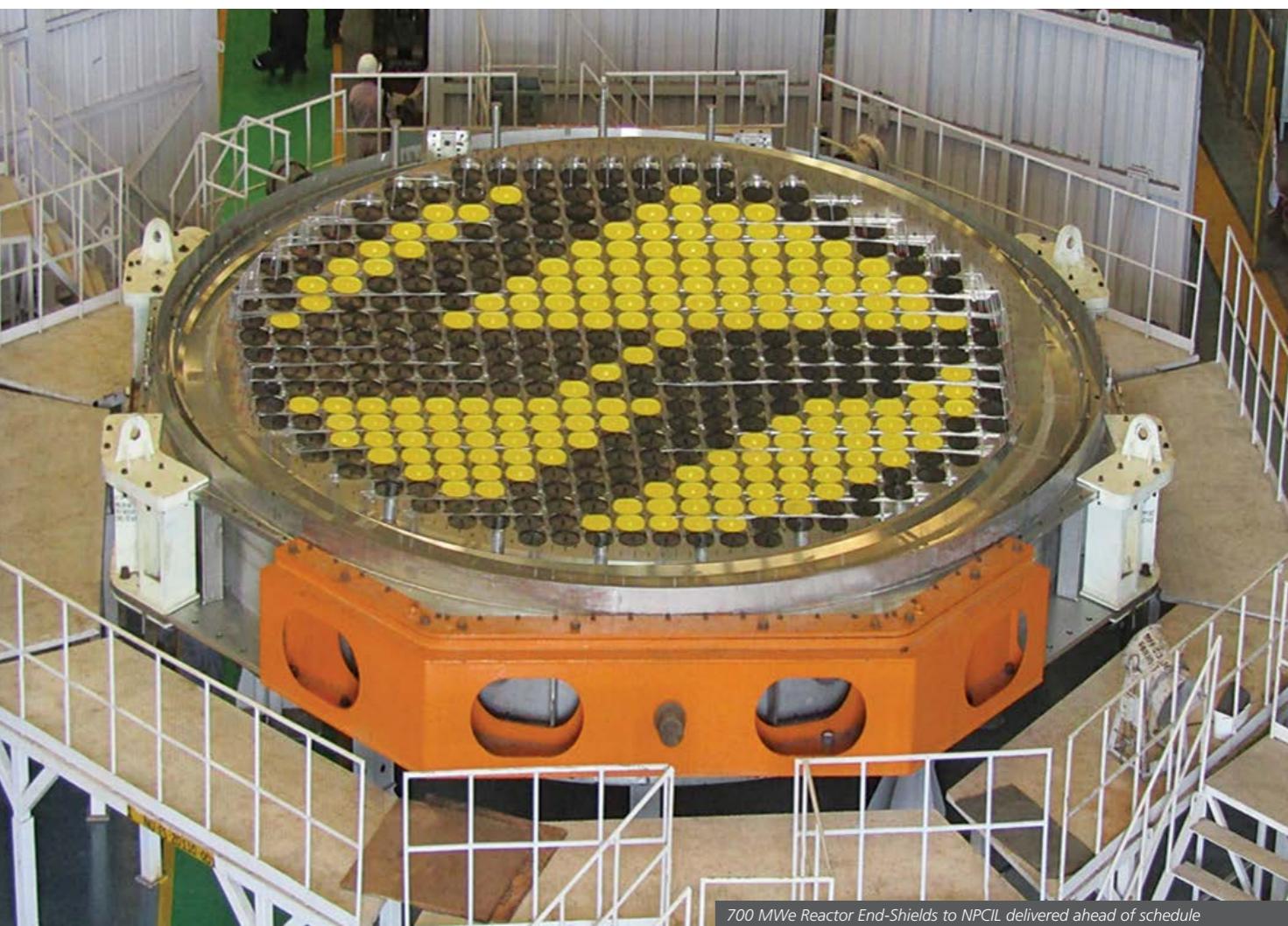
The A. M. Naik Heavy Engineering complex at Hazira is a globally benchmarked state-of-the-art, fully-integrated digitally enabled manufacturing complex. Its capability spectrum covers in-house engineering, R&D centres, and world-class fabrication facilities, spearheaded by a highly talented team, committed to a safe and sustainable work culture. The business achieved international recognition through an impeccable track record of executing large, complex projects and constantly creating new international benchmarks.

### KEY OFFERINGS

Ethylene oxide, Hydrocracker & clean fuel reactors | Renewable diesel reactor | FCC reactor and regenerator package | Coke drums | Molten salt-bath reactor system | Titanium-clad oxidation reactor | Ammonia and methanol converters | Urea Reactor and stripper, carbamate condenser | Waste heat boiler package | HP heat exchanger | Nuclear power equipment : Steam Generator and Pressuriser, End Shields, Fusion Reactor (ITER), Spent Fuel Canisters & Casks | Modification, Revamp and Upgrade (MRU) | Critical Piping Spools



Global Benchmark - 700 MWe Steam Generator for Gorakhpur Haryana Vidyut Pariyojana, India, delivered in 36 months



700 MWe Reactor End-Shields to NPCIL delivered ahead of schedule



Presence in  
49 countries

NEW ORDERS

164



## NEW ORDERS

### Modification, Revamp & Upgrade

Awarded an important contract for detail engineering, supply of critical equipment and multi-disciplinary site work for revamp work, by a key hydrocarbon sector customer in the Middle East

Awarded Fluid Catalytic Cracking System for hydrocarbon customer in the Middle East.

Awarded contract for Residue Fluid Catalytic Cracking revamp as part of the expansion

of the Barauni Refinery (BR-9) by Indian Oil Corporation Ltd.

### Petrochemical Sector

Awarded order for the technologically critical titanium-clad reactor for a public sector petrochemical project for purified terephthalic acid plant in India

A total of 22 critical reactors, 82 critical heat exchangers and 36 critical equipment

## TRACK RECORD

**121 m**

World's longest column for Reliance Industries, India

**2313 MT**

World's heaviest LC-Max Reactors for HPCL

**658 MT each**

World's Heaviest Coke Drums – 6 Nos., for PEMEX, Mexico

**36 months**

Global Benchmark : Manufactured Nuclear Steam Generator for NPCIL

**29.4 m Diameter**

The Cryostat, world's largest stainless-steel, high-vacuum pressure chamber weighing 3,850 MT for ITER, France

## AWARDS & RECOGNITION

- Gold Award in 'Overall Digital Transformation' category at 1<sup>st</sup> FICCI Industry 4.0 Awards for Manufacturing
- Winner at CII's 21<sup>st</sup> National Supervisory Skills Competition
- Gold Awards at CII's 40<sup>th</sup> National Kai-Zen Competition
- 'Par Excellence Award' at 35<sup>th</sup> National Convention on Quality Concepts (NCQC-2021)



## L&T SPECIAL STEELS & HEAVY FORGINGS



L&T's Steel Melting & Heavy Forge Shop at Hazira, Gujarat

L&T Special Steels and Heavy Forgings is a JV with NPCIL, and manufactures Heavy Forgings for Nuclear, Strategic, Hydrocarbon and Power sectors.

Setting up of the facility is a major step towards creating a sustainable alternative to the import of heavy forgings for the Nuclear and Strategic sectors.

### KEY OFFERINGS

Custom-built heavy forgings and thick plates in carbon steels, alloy steels and stainless steels

#### SNAPSHOT

NEW ORDERS **67**

TONNAGE **7500 MT**

FORGINGS FOR STRATEGIC SECTOR

**500mm Thk**

PRESSURE VESSEL FORGINGS

**400mm Thk**

FORGED BLOCKS FOR OIL & GAS SECTOR

#### TRACK RECORD (including ongoing jobs)

##### SECTORS SERVED

Strategic | Nuclear | Hydrocarbon | Oil & Gas | Steel | Cement & Mining | Power

##### 700 MW

Nuclear Power Plants  
Critical Heavy Forgings and Plates for Steam Generator and other equipment

##### 900 mm Thk

Forgings for International Thermonuclear Experimental Reactor (ITER)

##### 210 Tons

Heaviest Ingot made in India

##### 75 Tons

Hydrocarbon Sector  
Heaviest Forged Shell made in India

##### STRATEGIC SECTOR

Certified Manufacturer in India  
Bulk Production Orders

##### 60+ Steel Grades

#### AWARDS & RECOGNITION

National Award for Indigenous Development of SG Forgings: Technology Development Board (TDB), GOI

National Safety Award (NSA) for manufacture of basic metal and fabricated metal products

## DEFENCE



K9 Vajra-T Self-propelled Howitzer at Republic Day Parade rehearsal in New Delhi

L&T partners the DRDO and the Indian Armed Forces in the development of defence products, systems and platforms across land, sea and air operations, in line with its commitment to 'Make in India'. The Company has state-of-the-art facilities for manufacturing weapons & engineering systems, aerospace solutions and naval ships, helping the Armed Forces gain the decisive edge.

#### DEFENCE & AEROSPACE

L&T provides indigenous design-to-delivery solutions – from surveillance to strike. Its aerospace offerings add thrust to India's space programme.

#### DEFENCE SHIPBUILDING

## DEFENCE & AEROSPACE

L&T's defence solutions encompass land-based weapon systems, air defence and artillery systems and upgrades, naval weapon launch systems with fire-control systems, combat engineering systems, communication, avionics, C4I and missile systems. L&T designs and builds critical aerospace components, tracking and launch systems for space missions as well as for the Armed Forces.

### KEY OFFERINGS

Guns and Armoured Systems | Missiles and Aerospace Systems | Avionics, Sensors and Robotics | Submarines and Underwater Platforms | Weapon and Engineering Systems | Unmanned Systems | Radar Systems

Manufacturing facilities in India

7

### KEY GEOGRAPHIES



L&T has provided critical subsystems for most of India's space missions



Short-Span Bridging System



Modular Bridging Systems

## DEFENCE SHIPBUILDING

L&T offers a range of ocean-going vessels for defence, including frontline warships, submarines, auxiliary vessels, high-speed boats and special naval platforms.

L&T has delivered more than 60 defence vessels to the Indian Navy and Coast Guard till date.

L&T's Warship Design Centre, equipped with state-of-the-art software and associated tools, undertakes high-end, in-house design from the concept phase to the production phase.

L&T also designs and manufactures critical ship systems. Through-life support and obsolescence management offered by L&T considerably extend the operational life of platforms.

### KEY OFFERINGS

Ocean-going vessels for defence, including : Frontline Warships | Submarines | Auxiliary Vessels | Special Naval Platforms

#### FACILITIES

Greenfield shipyard  
at Kattupalli,  
Chennai

#### DELIVERED ORDERS FY 21-22

Offshore Patrol Vessels – 1  
Export of Defence Vessels – 4

#### NEW MAJOR ORDERS FROM THE INDIAN NAVY FY 21-22

2 Multi-Purpose Vessels  
3 Cadet Training Ships



Offshore Patrol Vessel

# SERVICES

Larsen & Toubro has over three decades of experience in the service sector, offering solutions, including technology-based ones, in several vital areas. Its smart world and communication services help to protect citizens from natural calamities and crime, and assist the military. Setting the gold standard in the sector, L&T's realty business undertakes timely delivery of prime commercial and residential spaces. L&T's information technology solutions comprise cutting-edge solutions at the convergence of the physical and digital worlds. The Company's technology services cover a wide spectrum of ER&D solutions for global clients, enhancing efficiency and cost-effectiveness. L&T's financial services business offers a wide range of both lending and non-lending-based financial products, benefitting over 15 million customers.

**IT SERVICES**

**TECHNOLOGY SERVICES**

**FINANCIAL SERVICES**

**DIGITAL SERVICES & E-COMMERCE PLATFORMS**

**FINANCIAL SERVICES**



L&T's service offerings are built on the core values of commitment and transparency, coupled with a customer-first approach, delivering customer delight across the globe.



LTI is a global technology, consulting, and digital solutions company with problem-solving abilities and an emphasis on developing ingenious solutions that allow its clients to remain competitive, profitable, and secure in an evolving business environment. The year 2022 marked the 25<sup>th</sup> year of LTI's journey.

The Company anticipates and leads change to remain in the leader's quadrant for profitable growth, driven by partnerships with globally leading hyperscalers like AWS, Google Cloud, and Microsoft. It has built strong capabilities in new as well as existing technologies such as cloud, data, and digital,

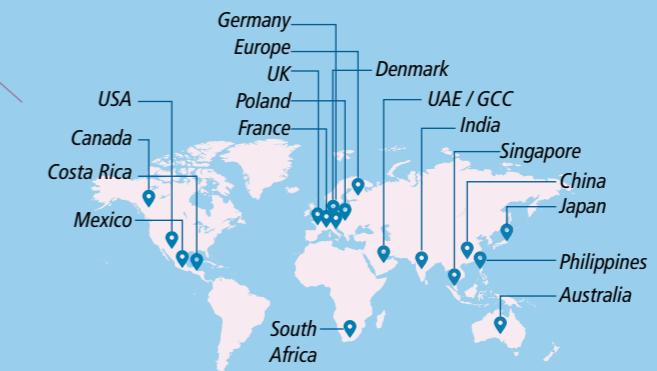
pioneering new frontiers like sustainability, Industry 4.0, and the Metaverse.

Responding to the changing future of work, workplace, and workforce, LTI rolled out the Yin-Yang Model, which is associated with the best practices around collaboration, flexibility, inclusion, and accountability. LTI's initiatives towards energy efficiency and natural resource management, society and community support, DEI (Diversity, Equity, and Inclusivity), and strong data privacy and security allow it to focus on Environment, Social, and Governance (ESG) parameters to drive sustainability across the value chain.

## KEY OFFERINGS

Cloud-based Transformation | Data & Analytics | Digital Consulting | Enterprise Solutions  
Cybersecurity | Application Management | Proven platforms: Fosfor, LTI Infinity, LTI Canvas  
**Partnerships:** SAP, Oracle, Microsoft, Salesforce, AWS, Google Cloud, IBM, Pega, ServiceNow, Snowflake, Temenos

## KEY GEOGRAPHIES



## KEY RECOGNITIONS

- Among the top 25 Most Valuable IT Services Brands in the Brand Finance IT Services 25 2022 ranking
- Recognised as a Top Employer in the UK for the second time in a row
- Recognised as a Great Place to work in Denmark
- Received Gold recognition from EcoVadis for ESG practices, including environment, labour, human rights, ethics, and sustainable procurement
- Recognised as Leader Across all Six Quadrants in the ISG Provider Lens™ AWS Ecosystem Partners Report USA 2021
- Positioned as a Leader and Star Performer in the Everest Group's Duck Creek IT Services PEAK Matrix® Assessment 2022
- Ranked ITS Top 10 list in Everest Group's PEAK Matrix® IT Service Provider of the Year 2022



## TRACK RECORD

**6<sup>th</sup>**

Largest Indian IT Player

**46,000+**

Employees working out of **36** Delivery Centres

**486+**

Clients

**53**

Sales Offices across **33** Countries in the US, EMEA & APAC

**73**

Fortune 500 Clients

**7**

Acquisitions

- Powerupcloud Technologies
- Lymbyc
- AugmentIQ
- Syncordis
- Ruletronics
- NIELSEN+PARTNER
- Cuelogic

Mindtree [NSE: MINDTREE] is a global technology consulting and services company that enables enterprises across industries to drive superior competitive advantage, customer experiences and business outcomes by harnessing digital and cloud technologies. A digital transformation partner to more than 275 of the world's most pioneering enterprises, Mindtree brings extensive domain, technology and consulting expertise to help reimagine business models, accelerate innovation and maximise growth. As a socially and environmentally responsible business, Mindtree is focused on growth as well as sustainability in building long-term stakeholder value. Powered by more than 37,400 talented and entrepreneurial professionals across 24 countries, Mindtree is consistently recognised among the best places to work.

## KEY OFFERINGS

**Consulting:** Mindtree shapes the digital strategy of its customers to fundamentally transform the way they do business. Its advisory and consulting expertise enables it to develop innovative strategies and solutions to help its customers gain competitive advantage. Mindtree delivers technology-led business transformation by solving complex problems to enable growth, innovation, and value. Its data-driven and agile mindset enables it to accelerate transformation at the intersection of business, design, technology and experience.

**Customer Success:** Mindtree delivers experience excellence by leveraging its global network of innovation labs and delivery centres. Its cutting-edge technologies and digital engineering expertise enable it to accelerate digital transformation and to help customers deliver innovation and value. Working with global brands, Mindtree transforms digital experiences through persuasive content and frictionless transactions for consumers, customers, partners, and employees. The Company's Product Engineering services combine core engineering expertise and ecosystem partnerships to transform a product vision into successful real-world designs.

**Data and Intelligence:** Using analytical solutions derived from human intelligence, artificial intelligence, and machine learning, Mindtree helps to unlock new possibilities by converting data into actionable insights. With design thinking, data engineering and automation capabilities, the company delivers business value, improves time-to-insight and optimises cost-to-insight. Mindtree brings a rich treasure of learnings and best practices from past implementations, enabling the Company to get it right the first time. Mindtree's deep domain expertise has helped it earn the trust of customers in terms of its ability to generate powerful result-oriented insights and deliver positive customer experiences.

**Cloud:** Mindtree works with customers to accelerate and scale up their businesses with cloud technologies. Its cloud strategy is built on 'why cloud' rather than 'what cloud can deliver'. Mindtree has developed cloud offerings on the

culture of inclusivity across the business and IT landscape. Mindtree partners with its customers in their cloud journey and drives success by offering the right workload at the right place in the right form at the right factor at the right time and cost with the right controls. Simplified offerings help to put cloud at the core of customers' businesses to bring in the true power of scalability.

**Enterprise IT Transformation and Automation:** Mindtree helps its customers re-think their enterprise IT landscape with scalable, business-aligned operating models that are flexible and adaptable to future needs. It deploys new-age transformation methods by unifying infrastructure and application and leveraging platforms and hyper-automation solutions, leading to significant cost savings, operational efficiencies, and an improved customer experience. The Company helps businesses to grow in rapidly changing environments at a considerably lower cost, leveraging its analytics-powered applications.

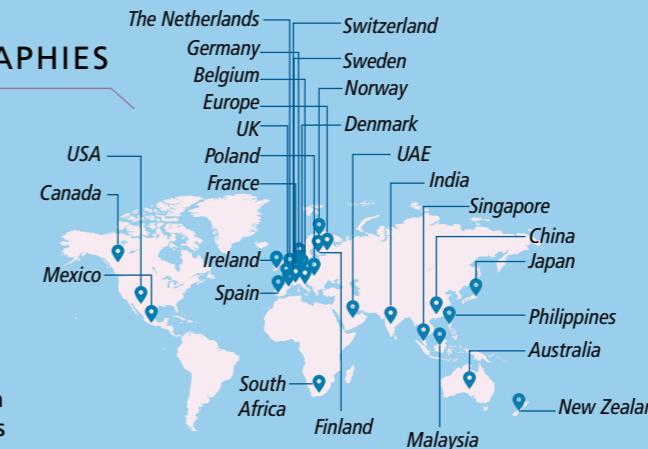
**Next-Gen Tech:** To stay ahead, Mindtree continues to invest in the future. It is building capabilities around next-generation technologies, including blockchain, quantum technologies, 5G and 5G applications, cybersecurity, and cyber-physical systems (IoT, sensors, etc.), Web 3.0, Metaverse, AR/VR, and so on. The Company has also made investments in its innovation engine and is partnering with universities and start-ups to create new offerings and solutions to help its customers navigate to the future, faster.

Mindtree is making secured and resilient next-generation platforms that can be evolved based on customer needs. The Company will continue to invest in building future-ready talent and developing differentiated solutions to help its customers solve problems in an everchanging business and technology landscape.



Digital Panorama

## KEY GEOGRAPHIES



## MINDTREE NxT

Mindtree provides strategies for organizations to thrive in a hyper-connected, cloud-first world. Mindtree NxT brings those strategies to life with IoT-enabled and AI-powered solutions as well as other emerging technologies such as digital twin and geospatial technologies. It helps organisations to innovate, discover new operational savings, and achieve sustained growth.

Mindtree helps businesses become future-ready through the deployment of IoT, AI, and geospatial technologies.

Leveraging its deep domain expertise across manufacturing, mining, engineering and construction, energy and utilities, and logistics industries, Mindtree NxT provides innovative digital solutions cutting across multiple industries and domains. Its smart digital solutions help customers make successful end-to-end transformations while delivering agility, profitability, and a more human-centric approach to business.

Its Insights NxT platform helps derive intelligence autonomously by connecting people, machines, location, and processes through technologies such as AI and machine learning. The ready-to-use platform components and accelerators help fast-track Industry 4.0 and digital transformation for its customers.



## TRACK RECORD

**10** Centres of Excellence

**275+** Clients

**37,000+** Mindtree Minds



## ACCOLADES

- Named a Major Contender in Everest Group's Mainframe Services PEAK Matrix® Assessment 2022.
- Named a Major Contender in Everest Group's Internet of Things (IoT) Services Supply Chain Solutions PEAK Matrix® Assessment 2022.
- Earned the AI and Machine Learning on Microsoft Azure Advanced Specialisation.
- Ranked second for client satisfaction in 2021 UK IT sourcing study conducted by Whitelane Research in collaboration with PA Consulting.
- Won the Silver award in the Most Innovative Company of the Year category at the Best in Biz Awards 2021 in North America.
- Named a Leader in Everest Group's Duck Creek Services PEAK Matrix® Assessment 2022.
- Recognised as a global Supplier Engagement Leader by CDP, a global non-profit that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.
- Recognised as the 2022 ServiceNow Americas Emerging Service Provider Partner of the Year.
- Won the Platinum Vision Award for its FY21 sustainability report at the League of American Communications Professionals' Annual Report Competition for 2020-21.
- Won the Silver Shield for Excellence in Integrated Reporting in the Service Sector category at the ICAI (Institute of Chartered Accountants of India) Sustainability Reporting Awards 2020-21.

# TECHNOLOGY SERVICES

## L&T TECHNOLOGY SERVICES LIMITED



LTTS 5G Lab

**L&T Technology Services Limited (LTTS)** is a leading global pure-play Engineering Research & Development (ER&D) services company. It offers design and development solutions throughout the product development lifecycle and provides services and solutions in the areas of digital products and services, digital manufacturing services, plant engineering, application engineering, mechanical and embedded systems. The Company has aligned its focus on six strategic and new-age technology areas such as Electric Autonomous Connected Vehicles (EACV), 5G, Digital Manufacturing, AI and Digital Products, Sustainability and MedTech.

LTTS' customer base includes 69 Fortune 500 companies and 57 of the world's top engineering research and development (ER&D) companies, across transportation, industrial products, telecom & hi-tech, medical devices and plant engineering. The Company has over 20,800 employees spread across 17 global design centres, 28 global sales offices and 89 innovation labs as of March 31, 2022.

### KEY OFFERINGS

LTTS has strategically aligned its offerings to support customers in the evolving global ecosystem. These offerings include:

**Electric Autonomous Connected Vehicles (EACV):** LTTS' innovations in the EACV segment are helping global clients develop cutting-edge transportation technologies.

**5G:** LTTS' chip-to-cloud capabilities has enabled in driving connectivity transformations across industries and verticals in the 5G domain and is well-poised to reduce its customers' time-to-market and help them stay ahead of the curve.

**Digital Manufacturing:** LTTS' Industry 4.NOW digital framework empowers manufacturers to tackle the post-pandemic set of challenges – such as digital prototyping and manufacturing with minimal contact – in the emerging global ecosystem.

**AI and Digital Products:** Leveraging its cutting-edge

AI algorithms, next-gen solution architectures, and state-of-the-art cybersecurity system, LTTS is enabling the 'Physical to Digital' transformation journeys of its global customers.

**Sustainability:** To help to build a sustainable world, LTTS is helping its customers to expand the use of renewable energy, drive water conservation measures, reduce carbon emissions and develop Net Zero products. LTTS has also committed to achieving water and carbon neutrality in its operations by 2030.

**MedTech:** With years of innovation expertise and several patents in the healthcare domain, LTTS provides a host of offerings to help providers and OEMs to tap into emerging technologies – such as technology-based use cases – in the post-pandemic world to help the healthcare industry meet challenges pertaining to the adoption of key healthcare policies and shifts in consumer behaviour.

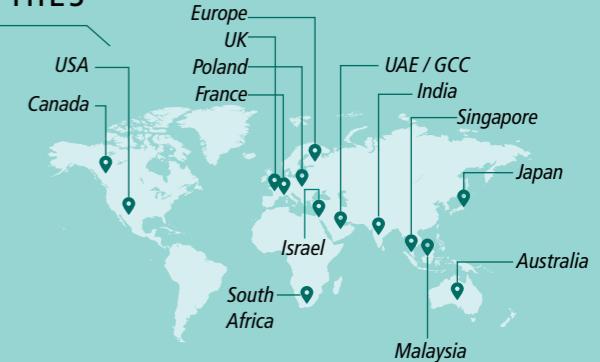
### TRACK RECORD

**69** Fortune 500 customers

**#1** pure-play ER&D services provider from India since listing in 2016

**90%** Repeat business from customers over the last 4 years

### KEY GEOGRAPHIES



AR / VR labs



eMotor Dyno Test Facility



State-of-the-art EV Lab

## ENGINEERING EXCELLENCE

- Robotic Endo-Trainer Kit
- State-of-the-art Electric Vehicle (EV) Lab and eVOLTTS – the first of its kind EV technology demonstrator
- Integrated 3D Plant Digitisation Centre of Excellence
- AI-based chest X-Ray analysis system, Chest rAI™
- World's first autonomous welding robot
- India's first affordable blood cell counter



## INDUSTRY RECOGNITION

- Zinnov Zones ER&D Services Report rated LTTS as a Leader in key technology areas across Digital Engineering, AI Engineering, Digital Thread, Telematics, ADAS, TeleHealth and OTT
- LTTS has been recognised as a Leader in Digital Engineering in ISG's Manufacturing Industry Services 2021 Study in the Transportation, Hi-Tech and Industrial segments. ISG's Life Science Digital Services Study recognised LTTS as a Leader in Europe and USA in the MedTech and Digital Transformation Services areas
- LTTS ranked #6 out of 54 service providers in Everest Group's Engineering Services PEAK Matrix Service Provider of the Year™ Awards 2022
- NelsonHall positioned LTTS in the 'Leaders' Category in Digital Manufacturing Services in its NEAT Leader 2021 Study

## DIGITAL SERVICES & E-COMMERCE PLATFORMS



### L & T - SuFin

**L&T-SuFin (Supply Chain and Finance)** is an integrated digital B2B marketplace for buying and selling of industrial and construction products and services. It also arranges for financing to facilitate the trade.

The platform offers:

- Efficient product and seller connections
- Online transaction facility
- Financing support from partner banks & NBFCs
- Logistical support, including free transit insurance

L&T-SuFin endeavors to resolve the pain points of MSMEs in the supply chain, making them more efficient, competitive and productive.



### SNAPSHOT

**27,000+** Sellers

**26,000+** Buyers

**45+** Product Categories  
(predominantly industrial and construction)

**3,000+** Distinct Items

**2,70,000+** Products

**6** Logistics Partners (19,101 pin codes serviceable pan-India)

**5** Financing Partners



## L & T EduTech

**L&T EduTech**, L&T's digitally-driven learning initiative, was created to integrate academia and industry to bridge the significant gap between the knowledge and skills needed by employers and the number of Engineering graduates who possess these essential attributes.

Empowering learners through a combination of conceptual and practical learning, L&T EduTech produces globally employable, industry-ready talent through application-oriented learning, skilling, assessment and certification programmes, powered by L&T's rich expertise in engineering and technology. It partners with universities, corporates, NGOs and the Government to expand access to world-class technical and skill-driven education.

### KEY OFFERINGS

**CollegeConnect**, EduTech's flagship programme, offers core engineering and IT courses to higher education institutes.

**Professional Skilling** is provided in terms of upskilling and reskilling of the workforce for corporates in engineering and technology domains.

**Vocational Skilling** aims to improve the employability quotient through phygital programmes designed by experienced industry experts. This includes 40 courses across six sectors.

**The Assessments & Certifications vertical** has a scientifically designed smart assessment platform with

standardised features to fulfill the various objectives in a talent management ecosystem.

**The Skill Exchange platform** connects job-seeking graduates with prospective recruiters.

**The Micro Learning platform** offers free courses that break complex topics down into short and stand-alone units of study to help students, teachers and corporates to keep abreast of upcoming trends and latest developments in the industry.

**Engineers' Ensemble** is a community of engineers – engineering graduates, teachers, researchers, entrepreneurs and practitioners – and discuss, debate and deliberate all topics related to engineering.

### TRACK RECORD

**210**

Courses Developed

**120,000**

Assessments Delivered

Partnered with

**30**

Colleges and  
State Universities

**142,000**

CollegeConnect Course Orders

**30**

Corporate Partnerships



### ACHIEVEMENTS

- Signed an MoU with All India Council for Technical Education (AICTE) to be a partner in ensuring high-quality technical education to all sections of the society.
- Collaborated with Gujarat Technological University (GTU) to offer niche industry abridged certification courses directly to students of GTU and its affiliated colleges.
- Collaborated with KPR Institute of Engineering and Technology (KPRIET) to launch Experience Engineering, an immersive learning centre.
- Organises academic summits, webinars, masterclasses and lecture series on emerging trends and evolving career opportunities.
- Won the Corporate Titan Award 2022 for EdTech Company of the Year.



L&T EduTech - Building Value for Learners, Academia and Industry



Panvel Data Center



Kanchipuram Hyperscale Data Center

## DATA CENTERS

**L&T's Data Center & Cloud Services business** provides end-to-end Data Center, Multi-Cloud services, Cloud Managed services, Security Services and Application Integration services with single-point responsibility. L&T has committed investments to set up most modern state-of-the-art Hyperscale Data Centers at multiple locations in India, starting with Mumbai and Chennai.

### KEY OFFERINGS

#### Colocation

- Rack Space, Power & Cooling
- Remote / Smart Hands
- Ancillary Services

#### Cloud

- Enterprise Public Cloud
- Private Cloud
- Hybrid Cloud Management
- Cloud Managed Services

#### Managed Services

- OS Management
- DB Management
- Middleware Management
- IaaS Network Management
- Storage & Back-up Management
- Disaster Recovery Management

#### Network & Security

- SOC Services
- Firewall
- DDoS
- Endpoint Security

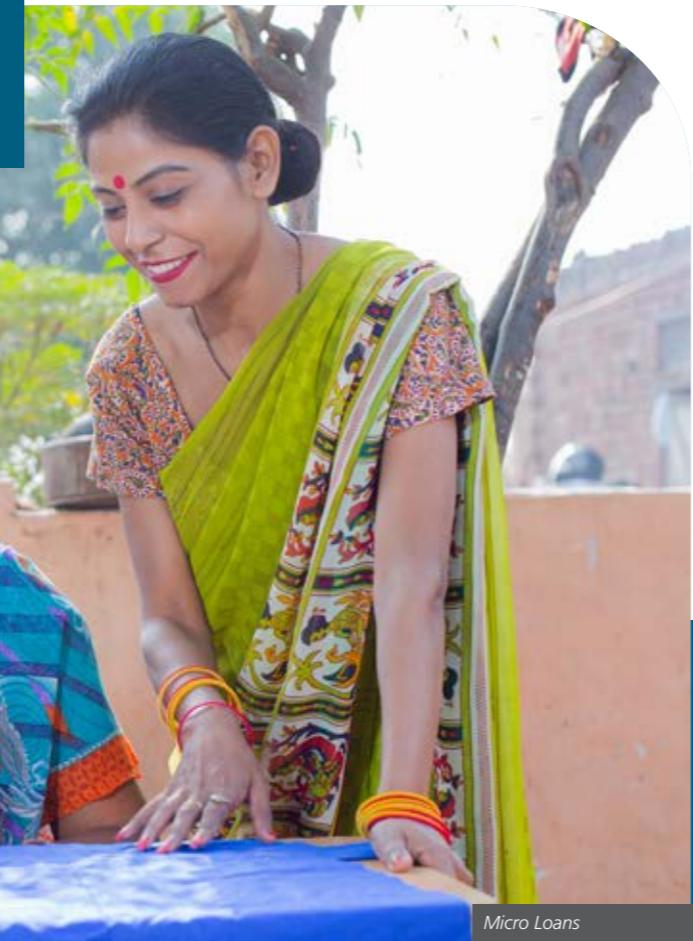
### HYPERSCALE ROADMAP

Name	Location	Racks	Avg. Rack Density	IT Load	Tier	Indicative Timeline
LNT NMP 1	Panvel, Navi Mumbai	285	7.5 kW	2 MW	Tier 3+	2022
LNT CHN 1 HYPERSCALE	Kancheepuram, Chennai	3000	10 kW	30 MW	Tier 3+	2023
LNT NMP 2 HYPERSCALE	Panvel, Navi Mumbai	3000	10 kW	30 MW	Tier 3+	2023

### KEY GEOGRAPHIES

Panvel, Kancheepuram

# FINANCIAL SERVICES L&T FINANCE HOLDINGS LIMITED (LTFH)



Headquartered in Mumbai, LTFH is one of the leading Non-Banking Financial Companies (NBFCs) in India. The Company has expanded its product portfolio, keeping its diverse customers' needs at the core and offers lending products to both retail & wholesale customers.

The company offers Rural finance, Housing finance, and Infrastructure finance as part of its lending business and Investment management as part of its non-lending business. Rural finance comprises farm equipment finance, micro-loans, two-wheeler finance and consumer loans. Housing finance

comprises home loans, loans against property and real estate finance.

The Company has demonstrated its ability to use Digital and Data Analytics to offer differentiated experience to both customers and channel partners. Along with this, the Company also takes its ESG responsibility seriously, as it is already Water Neutral today, and is committed to achieving Carbon Neutrality by FY35. LTFH has been rated AAA, the highest credit rating for NBFCs, by four leading rating agencies namely, CRISIL, ICRA, CARE and India Ratings.



## Lakshya 2026

To be a top class 'digitally enabled' retail finance company moving from a 'product-focused' to a 'customer-focused' approach.

## Lakshya 2026 Goals

Retailization > 80%  
Retail growth > 25% CAGR

Asset Quality - GS3 <3% and NS3<1%  
RoA - 2.8% to 3.0%

## KEY OFFERINGS



\*LTFH has entered into a definitive agreement with HSBC for 100% stake sale, subject to regulatory approvals

## SNAPSHOT

**16,000+** Partner Touchpoints

**16,500+** Employee Touchpoints

**20,000,000+** Customer Base

**21** States **1** Union Territory

**24,643** Employees



SME Finance

## MARKET SHARE

- Largest Farm Equipment Financier\*
- Amongst the Top 5 Two-Wheeler Financier and Micro Loans Provider\*

## ESG RANKINGS

LTFH performed in the top decile for the "FBN Diversified Financial Services and Capital Markets Industry" in the S&P Global Corporate Sustainability Assessment, with a

score of 55 compared to the industry global average of 27 (as on Nov 12, 2021).

As of December 2021, L&T Finance Holdings Ltd received an ESG Risk Rating of 19.9 from Sustainalytics and was assessed to be at Low Risk of experiencing material financial impacts from ESG factors.

L&T Finance Holdings Ltd has received a rating of A (on a scale of AAA-CCC) in the MSCI ESG Ratings, for the last 3 years.

FTSE Russell confirms that L&T Finance Holdings has been independently assessed

## RETALISATION

Continues to deliver on the retailisation strategy



## **OTHERS**



**REALTY**

**SMART WORLD  
& COMMUNICATION**

**CONSTRUCTION &  
MINING MACHINERY**

**RUBBER  
PROCESSING  
MACHINERY**

**VALVES**



L&T's other service and engineering businesses too meet vital needs and are committed to excellence in terms of quality and timely delivery.

# REALTY



L&T Realty specialises in the execution of large residential, mixed-use, and transit-oriented developments. Today, after a decade in the real estate business, it is one of the most trusted brands and is respected for its customer centricity and efficient design.

The true reflection of consumer focus comes from insight-driven master planning and product development. The business derives its competitive advantage from transparency,

cutting-edge technologies, and superior project management skills – to create landmarks that meet global standards. Amongst the 120 plus awards and accolades, L&T Realty was conferred the 'Best Consumer Centric Company' from Customer FEST leadership Awards 2020.

## KEY OFFERINGS

Mixed-use Integrated Developments | Transit-oriented Developments | Residential Complexes  
Commercial and Retail Spaces | Built-to-suit Projects

## KEY CLIENTS

JPMC, Colgate, Sanofi, WeWork, Ansell, Henkel Teva Pharma, Koch Industries, Tibco, SBI Life and many more...

## DEVELOPMENT PORTFOLIO

**80 mn.sq.ft.** Total Development  
**40 mn.sq.ft.** Residential  
**23 mn.sq.ft** Commercial & Retail  
**17 mn.sq.ft** Residential delivered

## PROJECTS

**51,000** Apartments  
**3,00,000** Office Desks  
**1,05,00,000 sq.ft.**  
Specialised Luxury Retail

## KEY GEOGRAPHIES

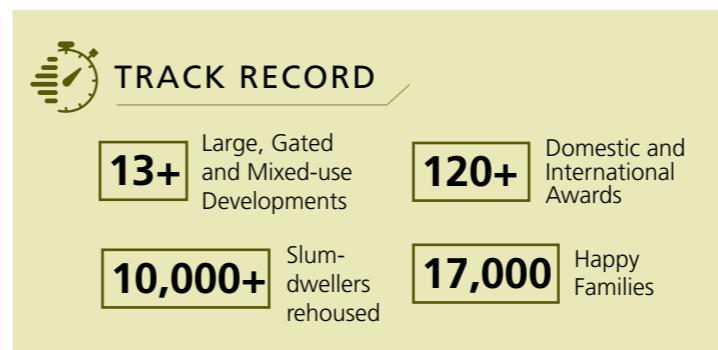




Elixir Reserve, Powai, Mumbai



RainTree Boulevard, Bengaluru



- KEY AWARDS & RECOGNITION**
- Best Reality Brand - Economic Times, 2021
  - Business Excellence in Real Estate - CNN News 18, 2020
  - Most Trusted Brand - Hindustan Times, 2020



L&T Seawoods Grand Central - Navi Mumbai



L&T Innovation Campus, Chennai

## SMART WORLD & COMMUNICATION



Jhansi Command Control Center



Moradabad Integrated Command and Control Center



Moradabad Data Center

L&T Smart World business leverages the latest technological innovations in the areas of Safe Cities, Smart Cities, Smart Utilities, Communication, Cyber security and IoT to benefit society at large to solve problems through scalable digital and smart solutions.

The Safe & Smart Cities segment leverages its in-house platform and solutions suite to help solve the problems of cities, law-enforcement agencies and critical infra domains like airports, seaports, energy, defence and other industries.

Its Communication segment offers end-to-end solutions in the digital transformation journey for the Government as well as enterprises and industries.

Its Network Operation Centre (NOC) and Security Operation Centre (SOC) implement data centre solutions, private cloud, virtualisation technologies and cybersecurity solutions.

The business has demonstrated customised IoT-driven 5G solutions

for industry / enterprise verticals.

The Military Communication segment offers advanced, fully-integrated systems in the areas of Satcom and radio communication solutions to enable defence forces to make decisions quickly, increasing their operational effectiveness. Multiple solutions have been rolled out in the areas of network management and radio communication, as well as multiple domain-centric projects.

Foraying into the field of solutions and services using its strong domain expertise and end-to-end implementation capabilities, L&T Smart World has leveraged disruptive technologies such as IoT, AI/ML, Geospatial, Cloud and computer vision in select domains.

The business is supported by a team of 700+ experts and professionals from diversified technology domains.

### KEY OFFERINGS

Smart Cities and Safe Campuses | Advanced Metering Solutions | Safe Cities | Next Gen Network Solutions | Cyber security | Satellite & Radio Communication | Communication for Defence | Data Centre and Private Cloud | Telecom Services, including 5G Services

### KEY GEOGRAPHIES



#### NEW PROJECTS

Safe City	1
Smart City	2
Solutions & Cyber security	5
Communication/Military Communication	4

#### COMMISSIONING

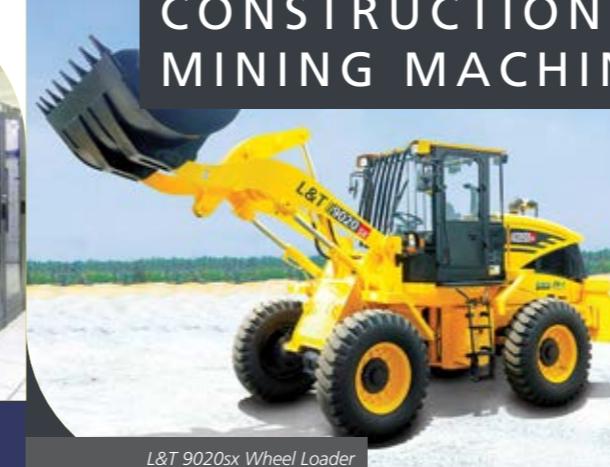
Milcom	1
Smart City	1
Safe City	2
Communication	2

Activity	Total
Command Control Centre	25+
Cameras	40,684
Data Centre	30+
Wi-Fi Access Points	21,439
Advanced Metering Solutions	1.6Mn
ICT for school/colleges	6300+
High throughput Ground Stations	22

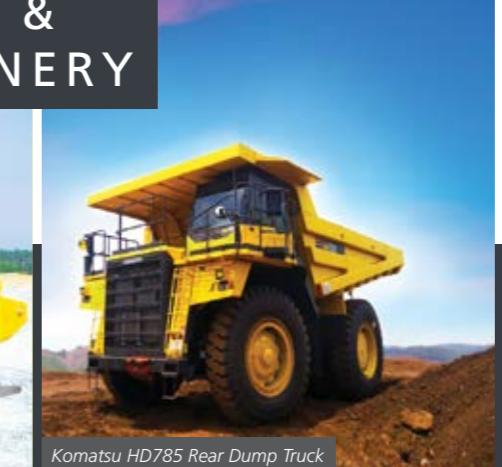
### TRACK RECORD

15	Milcom Projects
22	Communication Projects
24	Safe & Smart Projects
40+	smart solutions

## CONSTRUCTION & MINING MACHINERY



L&T 9020sx Wheel Loader



Komatsu HD785 Rear Dump Truck



L&T e7 Sand Plant

L&T's Construction & Mining Machinery business has, for over 75 years, made a significant contribution to the industry. A pioneer in the Indian construction & mining machinery industry, L&T sources from its principals of repute and supplies

equipment to the infrastructure, irrigation and mining sectors. Its comprehensive range of high-quality and reliable equipment matches global performance standards.

### KEY OFFERINGS

**Product Range :** Hydraulic Excavators | Rear Dump Trucks | Crawler Dozers | Wheel Loaders | Wheel Dozers | Motor Graders | Heavy Tipper | Vibratory Compactors – Soil & Asphalt | Pneumatic Tyred Roller | Asphalt Paver | Skid Steer Loader | Surface Miners | Sand Plants | Crushing Solutions | Apron Feeders

**Special Attachments :** Rock Breakers & Breaker Booms | Crusher Buckets | Slope Compactor | Rock Splitter | Quick Couplers | Piling Products | Cutter Attachments

#### PRINCIPALS

Komatsu - India and global

Scania CV India Private Limited

L&T Construction Equipment Limited (LTCEL), Bengaluru

Larsen & Toubro Limited, Kansbahal (Odisha)

### SIGNIFICANT ORDERS

Secured its largest-ever single order from a leading customer in the steel sector for the supply of 86 units of Komatsu mining machines, along with 10-year support for service and parts.

Won 17 consecutive orders for a limestone crushing system with 100 percent market share during the year.

Indigenously developed a rock splitter – a special attachment – and supplied it to the mining sector for the first time.

Exported and commissioned the sixth surface miner in Africa and the first for bauxite mines.

Exported nine L&T 9020 wheel loaders to Nigeria.

### SIGNIFICANT DEVELOPMENTS

Released a commemorative Stamp and Special Cover, along with India Post, Government of India, in commemoration of the Platinum Jubilee of L&T's Construction & Mining Machinery business.

Launched a CEV-IV-emission-compliant range of vibratory compactors and wheel loaders manufactured indigenously by LTCEL.

Signed an agreement with Gulf Oil for distribution of Genuine Oils for LTCEL equipment.

Tied-up with Kemroc-Germany to promote and distribute its exclusive range of cutter attachments, including chain cutters, in the Indian market.

Deployed an all-women's team for maintenance of HEMM (heavy earthmoving machinery) at a customer's iron ore project in East.

### Product Development Centre

This in-house R&D Centre, located at Coimbatore, employs highly skilled and experienced design engineers and is involved in the design and development of a range of products with innovative technology and rapid prototyping.

### TRACK RECORD

Over **75 years** of experience

**Wide range** of models offered in each product category

**6** Service Centres to repair / refurbish machines

Over **40,000** machines active in the market

### SUBSIDIARY

L&T Construction Equipment Limited (LTCEL) is a wholly-owned subsidiary of L&T. It manufactures indigenously designed road construction equipment and high-precision hydraulic systems and components at its factory near Bengaluru.

## RUBBER PROCESSING MACHINERY



Off-The-Road Mechanical Tyre Curing Press



Special-Purpose Hydraulic Tyre Curing Press

L&T is a global major, providing end-to-end rubber processing machinery solutions to the tyre and rubber industry. It markets its own products that are manufactured at its plant in Kancheepuram, near Chennai as well as certain products manufactured by Kobelco Industrial Machinery India Pvt. Ltd.

### KEY OFFERINGS

- Mechanical Tyre Curing Presses
- Hydraulic Tyre Curing Presses
- Tyre Building Machines
- Tyre Plant Solutions – Built-to-print / Custom-built Machinery
- Internal Mixers
- Twin-Screw Roller-head Extruders

### TRACK RECORD

Supplies to **45+** Countries

**4,500+** Machines

Top **7** Global tyre manufacturers as clients

### SNAPSHOT

- Years of Experience – **50**
- Distinct Product Segments – **4**
- Order Inflow – **₹11.02 bn**



### KEY ACHIEVEMENTS

- Celebrating its Golden Jubilee in 2022 in the journey of serving the global tyre industry
- Top OTR tyre curing machinery manufacturer in the world
- Received the US patent for the design of mould height adjustment for new-generation hydraulic tyre curing presses
- Leading hydraulic tyre curing press manufacturer in the world for truck and bus segments
- Won Silver Award for Manufacturing Competitiveness from International Research Institute for Manufacturing

## VALVES

L&T Valves Limited, a wholly-owned subsidiary of L&T, is a leader in flow-control solutions. Leveraging its global manufacturing footprint and a heritage for excellence that spans six decades, the Company offers unmatched customer satisfaction. The portfolio includes products monogrammed API 600, API 594, API 6D, API 609 and API 603, valves with CE, ATEX and SIL certifications, as well as IoT-ready digital solutions. Its marketing network spans the globe, reinforced by strategic alliances with key distributors.



### KEY OFFERINGS

- Gate, Globe and Check Valves | Pipeline & Process Ball Valves
- Triple-offset & Elastomer-lined Butterfly Valves | DBB Plug Valves
- SIL3-capable Automation Solutions including HIPPS
- Digital Products & Solutions | Aftermarket Solutions
- Knowledge-sharing Programmes

### SECTORS SERVED

- Oil & Gas | Pipelines | Refining | Petrochemicals
- Power | Defence | Nuclear | Aerospace
- Chemicals | Fertiliser | Pharmaceuticals | Water

### GLOBAL MANUFACTURING FOOTPRINT



### TRACK RECORD

Approved and accepted by global majors in the oil, gas and power sectors

Celebrating **60 years** of excellence

Valves in operation in **61** countries



Large-size high-pressure valve for a Hydrogen Project

# SUSTAINABILITY



Encouraging underprivileged women to play a more sustainable role within their families and communities, L&T implements initiatives ranging from self-help groups to vocational training.

L&T is one of the first few organisations in India to voluntarily set sustainability targets aligned with the Company's Business Plan, Lakshya. During the year, the Company's 5-year Strategic Plan was developed through a collaborative and consultative process across the organisation. As part of the Lakshya 2026 plan, the Group has re-evaluated shareholder value creation, defined social obligations, and framed sustainability goals.

This year, we have integrated our statutory and non-statutory disclosures (Annual Report and Integrated Report) and published our first Business Responsibility and Sustainability Report (BRSR). The Integrated Report is based on the International Integrated Reporting Framework (IIRC) and Global Reporting Initiative (GRI) Standards. The report demonstrates the interlinkage between the various capitals,

i.e. Financial, Natural, Intellectual, Manufactured, Social and Relationship and Human capitals. It provides an insight into the organisation's strategy, governance, social, environmental and economic context within which company operates.

At L&T, we have been taking concerted efforts towards achieving resource efficiency and decarbonising our businesses. We are revisiting our vision, policies, frameworks, roadmaps and action plans to deliver solutions towards building a better future. L&T is investing and growing equitably to improve its sustainability performance. By embracing a digital future, robust risk management process, strong stakeholder dialogues, and connectivity of information, the Company continues to deliver products and services designed to create a better world.



Fully-equipped induction vans impart safety training to personnel at project sites.

## THRUST AREAS



### BETTER PLANET

Carbon-neutral by **2040**

Water-neutral by **2035**

**149 Mn kWh** energy saved since 2008

**35.3 Mn kWh** renewable energy used in our campuses and project sites in FY22

**46,539 Tonnes** carbon emissions avoided in FY22

**48%** of wastewater recycled in FY22



### BETTER BUSINESS

**18%** recycled & eco-friendly material used in FY22

**38.2%** revenue from Green Business

**₹4,498.4 Mn** cumulative R&D spend for last 3 years

**₹21,510 Mn** revenue in FY22 from new emerging business started in last 3 years



### BETTER COMMUNITIES

**4.96 million** manhours – safety training

**1.13 million** beneficiaries in health, education, water & sanitation and skill-building in FY22



Scan to read  
L&T's latest  
Integrated Report



### KEY ACHIEVEMENTS

- Ranked #18 among Top 100 companies in India by CSR Journal for CSR and Sustainability.
- International Green Apple Environment Award 2021, UK in Habitat and Biodiversity Conservation for Mumbai Coastal Road Packages 1 and 4
- Best Practices in Occupational Health and Safety 2021 Award conferred by Confederation of Indian Industries (CII)
- CII EHS Award 2021 under 'Construction Category' and 'EHS Workforce Engagement' special category award for HPCL FCHCU and HPCL CDU VDU projects
- Silver Shield Award for Reporting on Sustainable Development Goals – ICAI Sustainability Reporting Awards 2020-21

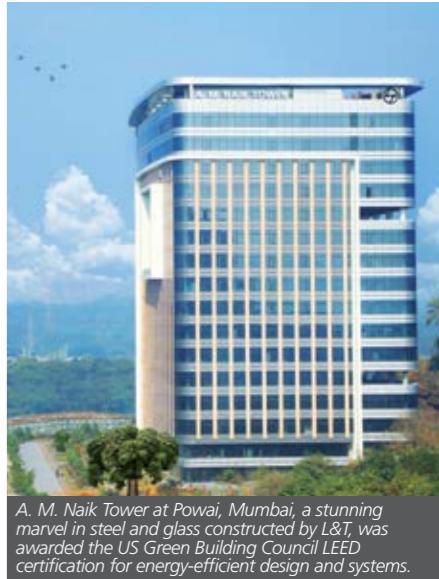
- Ranked No.3 in the 2022 'Top 200 Environmental Firms' list of Engineering News-Record (ENR), New York
- Telangana State Global Linker – 4<sup>th</sup> Edition of the Telangana State Industry Award 2021 for best Sustainability Practices
- A. M. Naik Tower awarded the Luxury Project of the Year – Commercial and Most Environmentally Friendly Commercial Office Space at the Asian Leadership Awards 2021
- India Digital Awards – 2021 for Best Supply Chain Solution for the in-house end-to-end supply chain solution (SWIFT, Smart Sign-off & i-smart Inventory)
- India Digital Awards – 2021 for Best Mobile Application for Jhansi Smart City for the application developed for Government bodies



L&T organises training programmes in several marketable skills to enable youth find gainful employment, thus benefiting both industry and society.



L&T's staff volunteers – known as L&Teers – devote their personal time and talent to uplifting the marginalised.



A. M. Naik Tower at Powai, Mumbai, a stunning marvel in steel and glass constructed by L&T, was awarded the US Green Building Council LEED certification for energy-efficient design and systems.

## NOTES

## NOTES

---



**LARSEN & TOUBRO**

Find us on:



[www.Larsentoubro.com](http://www.Larsentoubro.com)

*Larsen & Toubro Limited*

*L&T House, N.M. Marg, Ballard Estate, Mumbai 400001, INDIA  
CIN: L99999MH1946PLC004768*