

A person with a backpack and climbing gear stands on the edge of a dark, jagged rock formation. The background shows a vast mountain range with patches of snow under a sky transitioning from deep blue to a soft orange and pink glow on the horizon.

The Future

Seeing it. Shaping it.



L&T Electrical & Automation
Control & Automation



Tomorrow is not just a continuation of today. At Larsen & Toubro, we see tomorrow as a whole new world of possibilities. So we are developing the capabilities that will help shape those possibilities into a reality for our customers.

In the sphere of control and automation, we are applying the expertise acquired across decades and across multiple industry sectors to give new shape and meaning to tomorrow.

The Company

L&T Control & Automation is a Strategic Business Unit of L&T Electrical & Automation. It is part of Larsen & Toubro – the multibillion India-based conglomerate. The conglomerate is engaged in technology, engineering, construction and manufacturing, and has a track-record of projects that set industry benchmarks in scale and sophistication. Our solutions are the outcome of well established innovation practices that are focused on meeting the needs of a variety of customers.

The Group's capabilities cover large process plants, construction, electrical distribution, electronics and information technology.

Its capabilities are complemented through partnerships with global leaders. The manufacturing footprint extends across India, South East Asia, China and the Middle East.

An industry major in the electrical and automation space, the Company has an expansive product portfolio, with a reputation for quality, an innovative outlook and strong customer orientation.

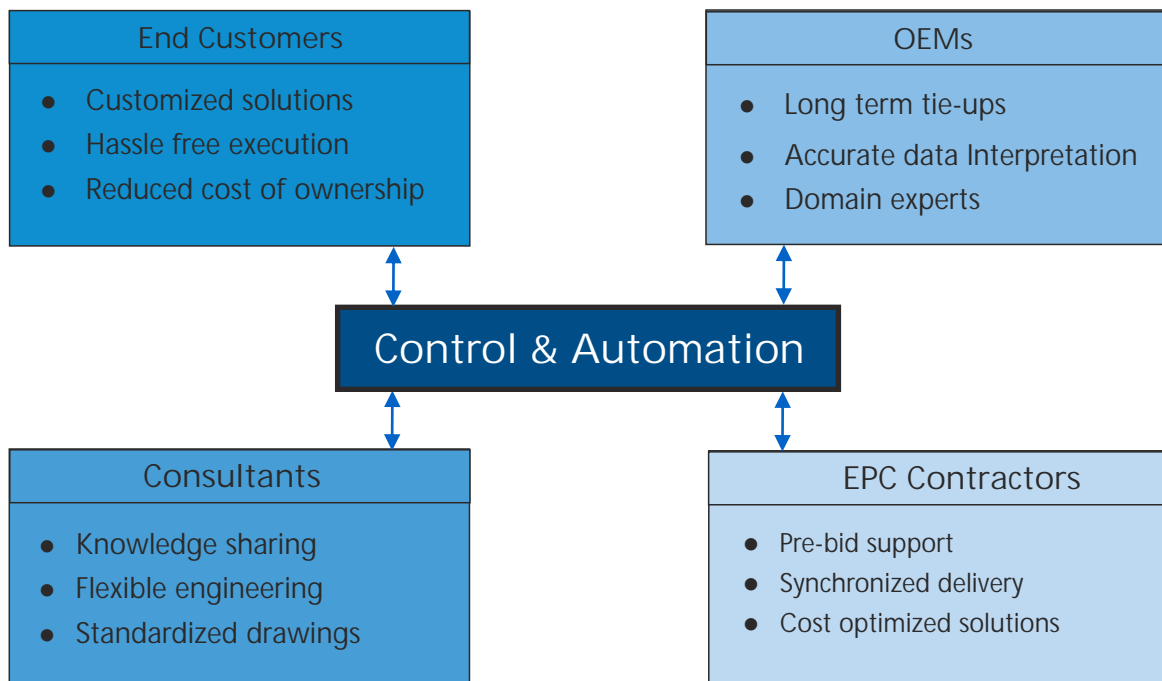
L&T Control & Automation is a market leader in delivering integrated electrical & automation solutions in India and overseas. With over three decades of experience in diverse industry segments, L&T delivers value through comprehensive solutions that are based on varied technology platforms and incorporate the benefits of its wide ranging experience.

The Future - Shaped by Expertise

The future belongs to those who can 'learn, unlearn and re-learn'. At L&T our track record is 'live' – continuously updated and upgraded with new learnings and developments.

The Company's integrated solutions deliver value through systems design, application engineering, application software, documentation, commissioning and life cycle services to ensure consistently high performance.

EPC contractors / OEMs, consultants and end customers are served through a strong team of engineers who architect solutions backed by robust engineering and intelligent software development, supported by domain experts.





The Future is in Integrated Solutions

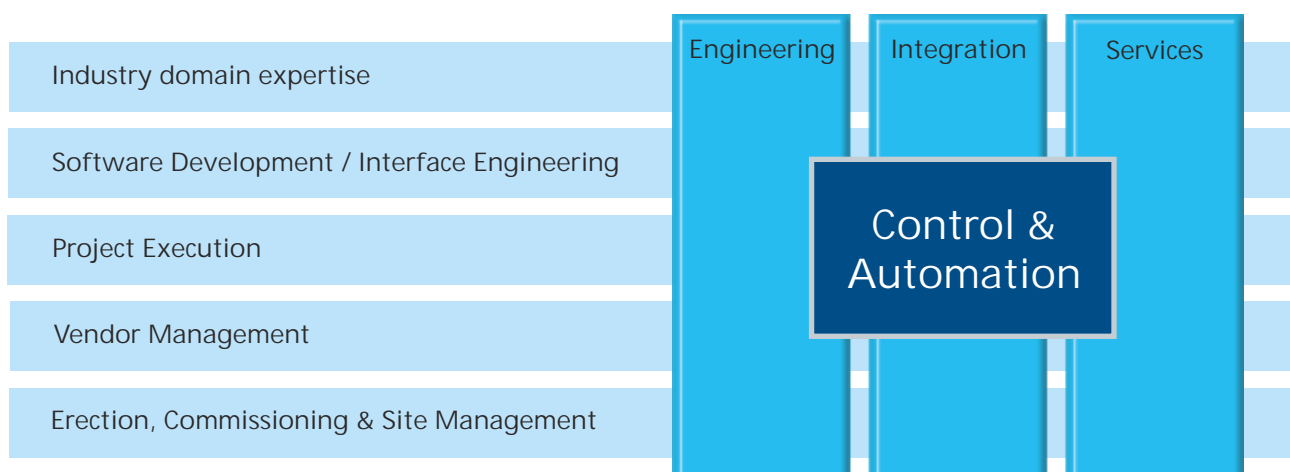
The past may have had answers. The future will have solutions.

Industries are looking for solution providers who address their needs with a 360 degree perspective. L&T is widely acknowledged for its ability to provide precisely these kind of solutions, incorporating the total EPC (Engineering, Procurement and Construction) concept.

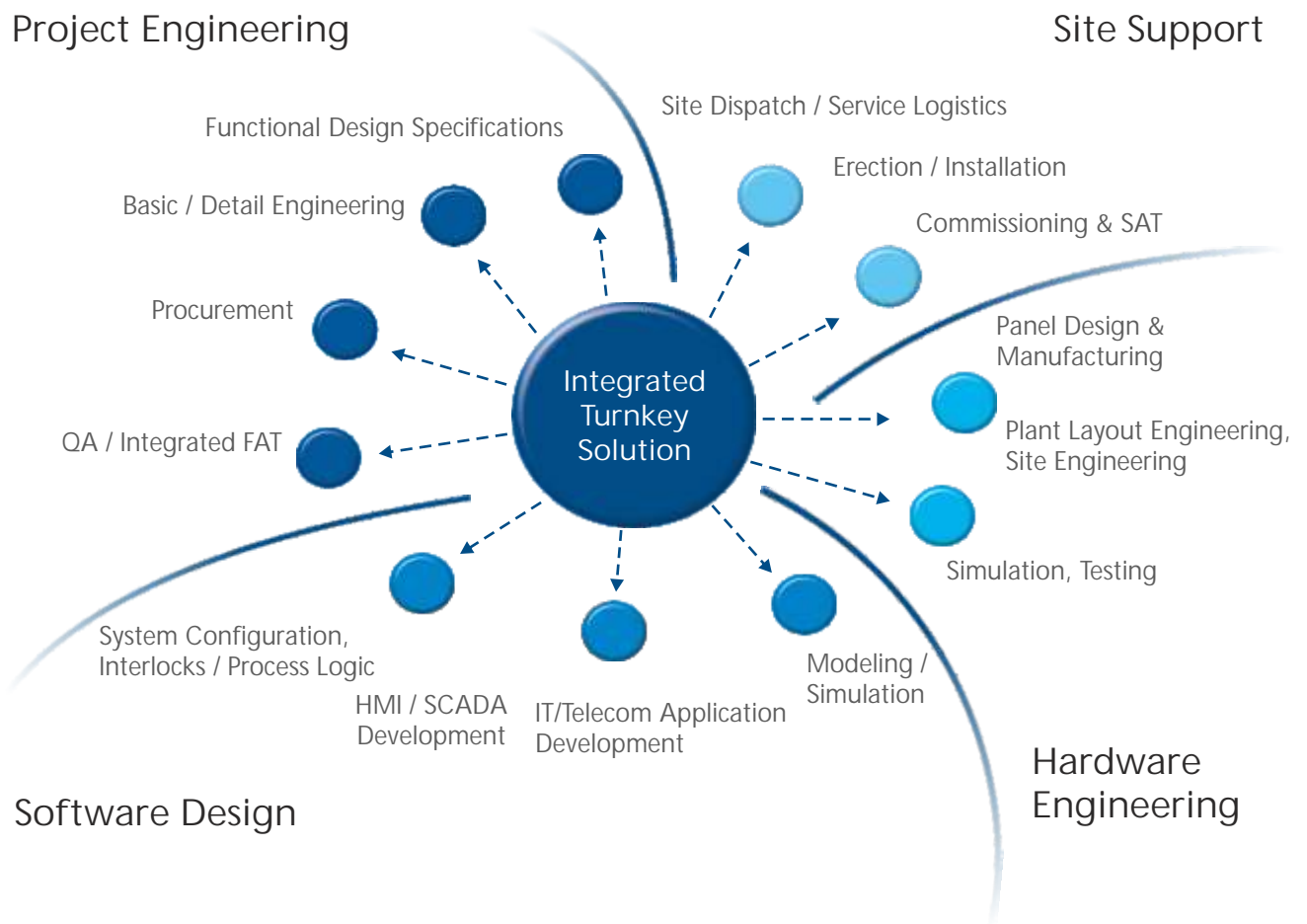
Extended to the electrical & automation space, the concept means there is a strong engagement of L&T team with customer up-front during pre-bid stage. It facilitates preparation of basic engineering data like single line diagrams (SLDs), load list, I/O list, etc. Based on this L&T assumes single point responsibility to deliver complete engineered solution within agreed time schedule. Our ability to work on multiple automation platforms is the key differentiator.

Also implicit in the EPC concept of delivery is a professional approach to risk management. Drawing from L&T's experience in the field, all risks are identified, appraised and effectively addressed. End customers are insulated from risk, and can be assured of on-time project delivery, at minimum cost of ownership to all stakeholders.

Main Automation / Electrical Contractor (MAC / MEC)



Integrated Electrical & Automation, Control & Instrumentation and IT solutions



Minerals & Metals

Cement, Mining, Material Handling and Ferrous & Non-Ferrous

Integrated electrical and automation solutions including Switchyards, HT & LT Power Distribution, MV/LV Motors, Variable Frequency Drives, DC Drives, Slip Power Recovery Systems (SPRS), APFC Panels, Power & Control Cables, Web based Plant Information Systems (MIS), Lab Automation & Alarm Systems, Erection hardware & services

Power

Generation, Transmission and Distribution

Station C&I, Boiler & Turbine Integral Controls & Instrumentation, E&I for Balance of Plant, Coal Handling Plant, Ash Handling Plant. Integrated E&I for captive power plants (CPP) & renewable energy - Wind

Energy Management, Substation Automation, Automatic Meter Reading System, SCADA/DMS, Smartgrid Solutions for Transmission & Distribution

MV / LV drives, Security and Surveillance Solutions and Enterprise wide MIS and CMIMS



Oil & Gas

Upstream, Midstream and Downstream

Integrated Electrical & Automation solutions for Onshore/Offshore Wellhead platforms , Multi product Pipelines, Petrochemical & Refining plants, Storage terminals and Tanks farms encompassing SCADA, Telecom, Control & Instrumentation, Intrusion Detection, Leak Detection , Security & Surveillance , Emergency Shutdown and Fire & Gas Systems , Variable frequency Drives, Soft Starters , Electrical Control and Power Distribution systems

Water

Entire Water Supply & Distribution from Reservoir/Dams to Consumers, Sewage & Effluent Treatment plants

Integrated Electrical & Automation Solutions comprising SCADA, Control & Instrumentation, Remote Telemetry Unit (RTU) & Telemetry Integration

Sub-Station, LV & MV Switchboards, Power Distribution, Variable Frequency Drives & Soft Starters, Leak Detection System, Water Quality Management System, Security & Surveillance solution, Water Information Management System



Solar

Photovoltaic - Utility & Rooftop,
Thermal

Grid Inverter, Compact Substation, SCADA, String
Monitoring Unit

Integrated Electrical & Automation solutions for AC
side Balance of System including Inverter, HT
switchboards, ring main unit, transformers, relays,
meters, SCADA, control system, switchyard and
substation

Infrastructure

Airport, Highways, Ports, Metro
Railways, Buildings & Factories

Control & Automation solutions for Baggage
Handling System, Airport IT system, Aviation Fuel
Handling System, Traffic & Toll Management
Systems for highways and tunnels, Automatic Fare
Collection System, Building Automation, HVAC
Control and Surveillance Systems, Electrical for
Buildings & Factories





The Future is rich with Possibilities

Expertise must translate into a future of demonstrable and measurable change. L&T's expertise extends across the spectrum – from engineering software to post commissioning assistance.

Commissioning

L&T possesses in depth experience in commissioning and executing large projects. The commissioning cycle is typically divided into three phases to maximize efficiency and optimize resources.

Pre-Commissioning - erection and installation of various equipments, cabling & terminations.

Core Commissioning - cold and hot trials related to production process of the plant

Post-Commissioning - observation period for commissioned systems including SAT / PG Tests, training of customer operation staff on site.

Life Cycle Services

L&T's service team is spread around the country, and services provided through our regional offices located near to the customer, to ensure prompt and effective customer support.

Life cycle services include, spares support, annual comprehensive maintenance contracts, product & system upgrades, call out support, on site and remote service support, leading to overall asset life cycle management.

Quality Standards

At L&T, conforming to Quality norms is part of sustainability . We have been first movers for various quality norms amongst industry peers. Our operations have been certified with:

Quality Management System (QMS)	ISO 9001-2008
Environmental Management System (EMS)	ISO: 14001 – 2004
Occupational Health and Safety Assessment Series (OHSAS)	ISO: 18001 – 2007.
Information Security Management System (ISMS)	ISO/IEC 27001:2005

Engineering Software Services

Enhancing efficiency of plants is a never ending challenge. Through our Engineering Software Services, we offer seamless connectivity between process-floor and business IT systems. By leveraging our deep industry expertise, we offer enhanced visibility of your operations which enable you to make informed decisions today, that positively influences tomorrow.

Engineering software solutions include software and driver development, PLC, SCADA, MES engineering, functional design specification (FDS), FAT, SAT, remote plant monitoring and training.

A large resource pool combined with flexible on site - off shore model take cares of the Industrial IT needs of clients across the globe.

Step into our Automation Campus

L&T's state-of-the-art Automation Campus at Navi Mumbai in India is equipped with the latest testing and manufacturing equipment. It incorporates a modular manufacturing unit, an application software laboratory and a fully networked office for engineering and project management. A training facility familiarizes customer personnel with all aspects of operation and maintenance.

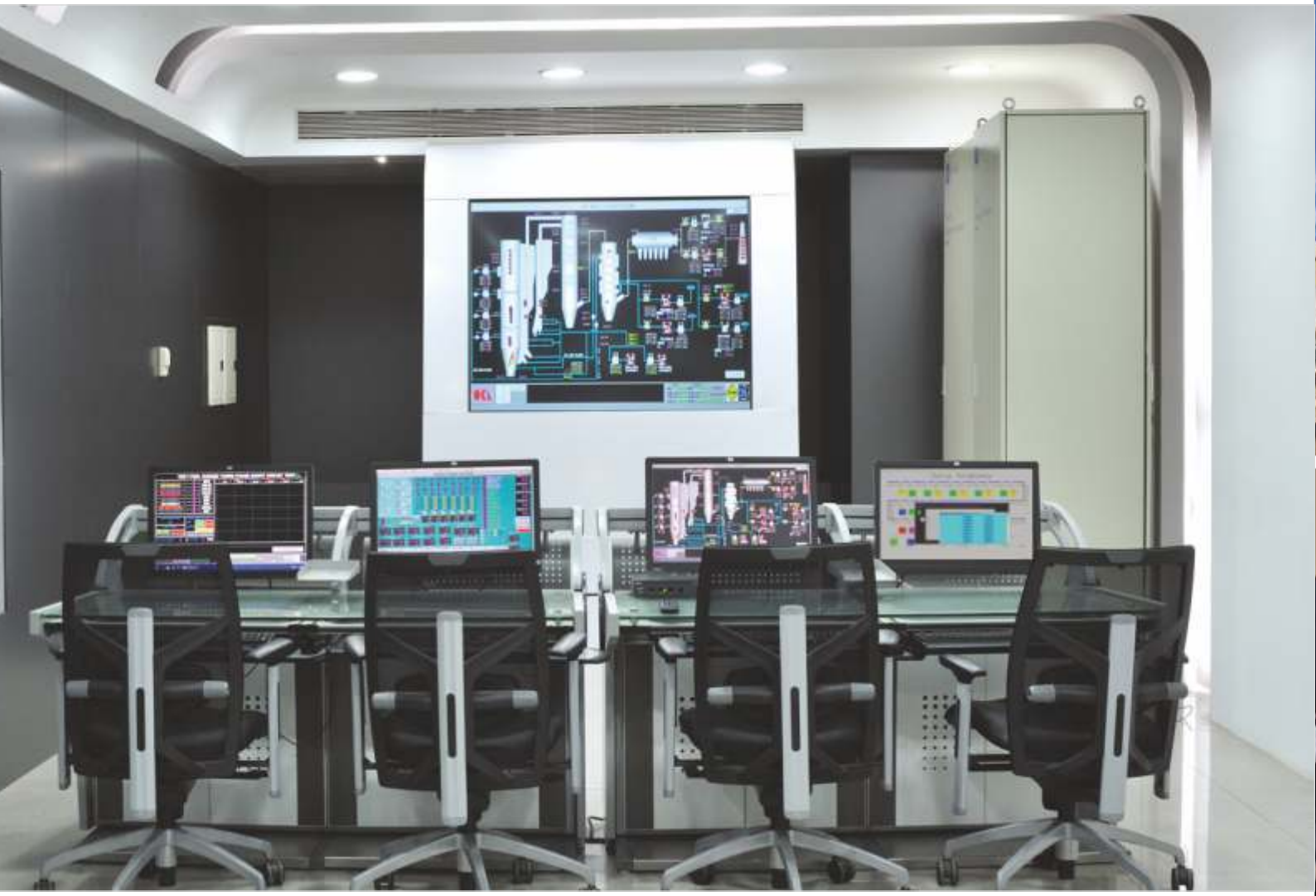
Technology Centre

Technology Centre is the research and development wing of L&T - Control & Automation focused on exploring, identifying and implementing new technologies, key products & systems. Technology Centre was established to enhance the quality of C&A offerings through research of better technologies and by its effective deployment in projects in various domains and engineering.

Experience Room

In the Experience Room, you can experience engineering through live exposure to control logic development and its simulation, HMI designing and controller configuration are exhibited in simulated control room atmosphere.

The facility houses DCS systems, SCADA / DMS, Power Management Systems, HTMS modular control desks, to create a state-of-the-art control room ambience.



The future begins today

At L&T, we are committed to sustainable development with social responsibility, a concern for the environment and business growth going hand in hand. Pursuing our growth goals under the motto of 'optimizing energy, powering sustainability', we strive to preserve natural resources to ensure that in meeting the needs of today's generation, we do not compromise the ability of future generations to meet their own needs.

Our strategy is two pronged - first maximize the carbon efficiency of existing assets, operations, products and services; second, create and participate in new low carbon solutions - especially by incubating technological shifts and developing new product line.

Our products and solutions like drives and energy management systems help customers to reduce their energy consumption resulting in the reduction of carbon footprint of their operations. Our solutions for renewable power generation segments like solar, hydro & wind are helping propel the country towards a greener future.

Our BEE (Bureau of Energy Efficiency) certified 4 Star Automation Campus in Navi Mumbai demonstrates our emphasis on energy conservation.



Regional offices of C&A

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