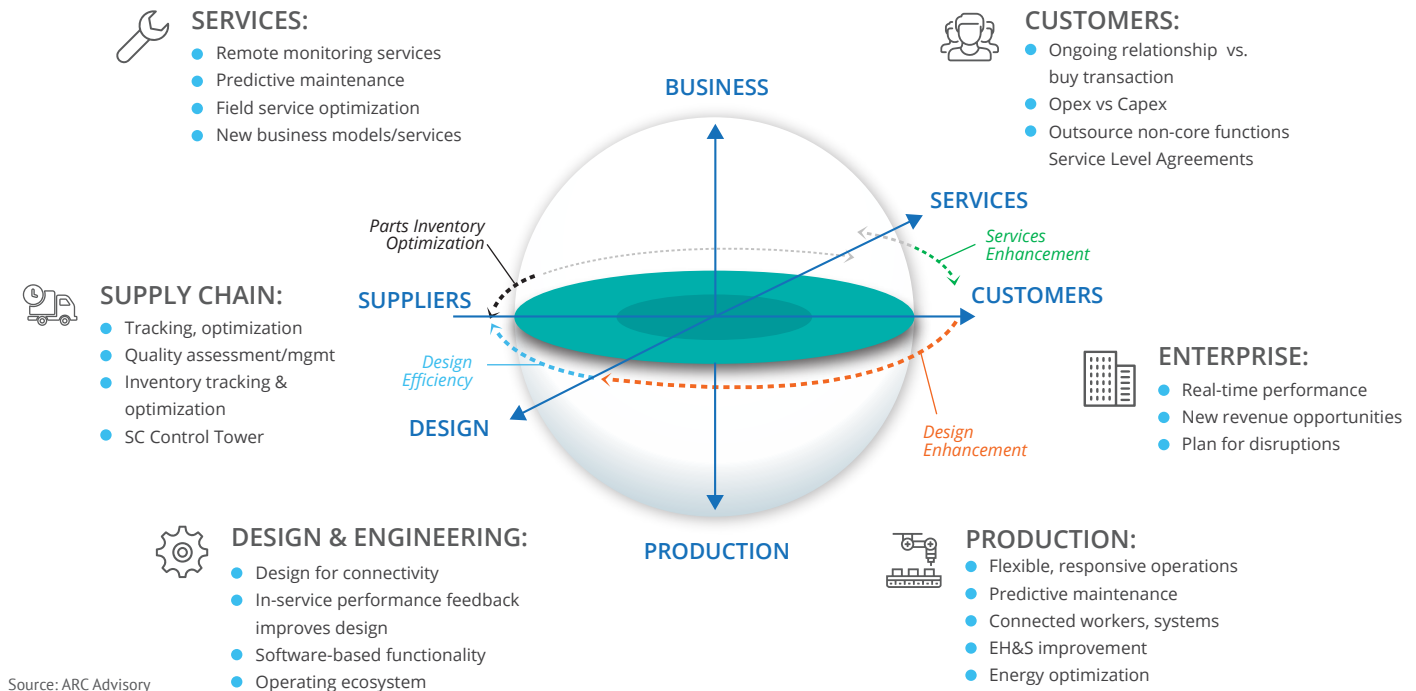


ENGINEERING FOR SMART MANUFACTURING SERVICES

STATE OF THE MARKET

Smart Manufacturing is the application of Integrated and Intelligent Information Systems throughout the manufacturing and supply chain enterprise. Intelligence is built in the entire lifecycle of design, engineering, planning, production, warehousing and distribution of products. It provides seamless integration of physical and virtual worlds across the manufacturing eco-system. Business Intelligence through Smart Manufacturing Technologies will optimize the entire manufacturing industry to create flexibility, better quality products, higher productivity, increase energy efficiency, and improve safety on the plant floor.

SMART MANUFACTURING PROVIDES FLEXIBILITY, CONNECTIVITY & INTELLIGENCE



Source: ARC Advisory

SERVICE OFFERINGS

L&T Technology Services provides integrated smart manufacturing services that can facilitate a real-time view of plant operations along with timely insights required for leaner, faster processes and leading to quicker decision making. The services include:

- **Intelligent Industrial Automation** – PLC, DCS, SCADA, and MES based automation for manufacturing processes and operations
- **Integrated Manufacturing Services** – Simulation services and development of tools and fixtures for improving efficiencies
- **Integrated Asset Management** – Data and material management with partners like IBM Maximo and Infor EAM
- **Engineering Application Software** – Development & deployment of engineering software applications for plant operations and automation
- **Engineering Analytics** – Data ingestion platforms, modelling, visualization and managed services
- **Mobility & Augmented Reality Applications** - Design, Development, and Testing services
- **Manufacturing Operations Management** – Consulting, Implementation, support of manufacturing execution system software, tools for process and discrete industry verticals
- **Digital PLM** – Digitizing the manufacturing process and connecting with PLM

SOLUTIONS OFFERINGS

- **Analytics enabled Integrated Asset Performance Management** – Solutions frameworks with theme for asset performance management to manage the up-time of the assets
- **Connectivity & Mobility Solutions** - Instant access to plant parameters for the empowered plant manager
- **UBIQWise™** – Family of IoT solutions that offers aggregation of sensory data from devices, access to cloud through an IoT gateway, and management of things in the network

BENEFITS

- Manufacturing engineering simulation reduces up to 20% of prototype manufacturing cost and 30% of build time
- Augmented Reality Services offers up to 12% increase in productivity for a smart workforce
- Integrated PLM services can reduce manufacturing process time by 25-40%
- PLC, DCS, SCADA and MES based intelligent automation for manufacturing operations improved OEE by 15%

CASES



Integrated Asset Performance Management with Industrial IoT achieved with 12% improvement in asset up-time and failure prediction probability of 75%



System integration of multi-vendor equipment, machines and devices results in CAPEX reduction of more than 5%



Simulation of material movement in plants increases operational efficiency by 20%

For more information visit us at www.lnttechservices.com

Reach us at info@lnttechservices.com



About L&T Technology Services

L&T Technology Services Limited is a subsidiary of Larsen & Toubro Limited with a focus in the engineering services space, partnering with over 50 Fortune 500 companies. A leading pure-play Engineering, Research and Development services company, we offer design and development solutions through the entire product development chain, across various industries such as Industrial Products, Medical Devices, Transportation, Telecom & Hi-tech, and the Process Industry. We also offer solutions in the areas of Mechanical Engineering Services, Embedded Systems & Applications, Engineering Process Services, Product Lifecycle Management, Engineering Analytics, Power Electronics, Machine-to-Machine (M2M), and the Internet-of-Things (IoT).