

Predictable Future: The Digital Twin Approach

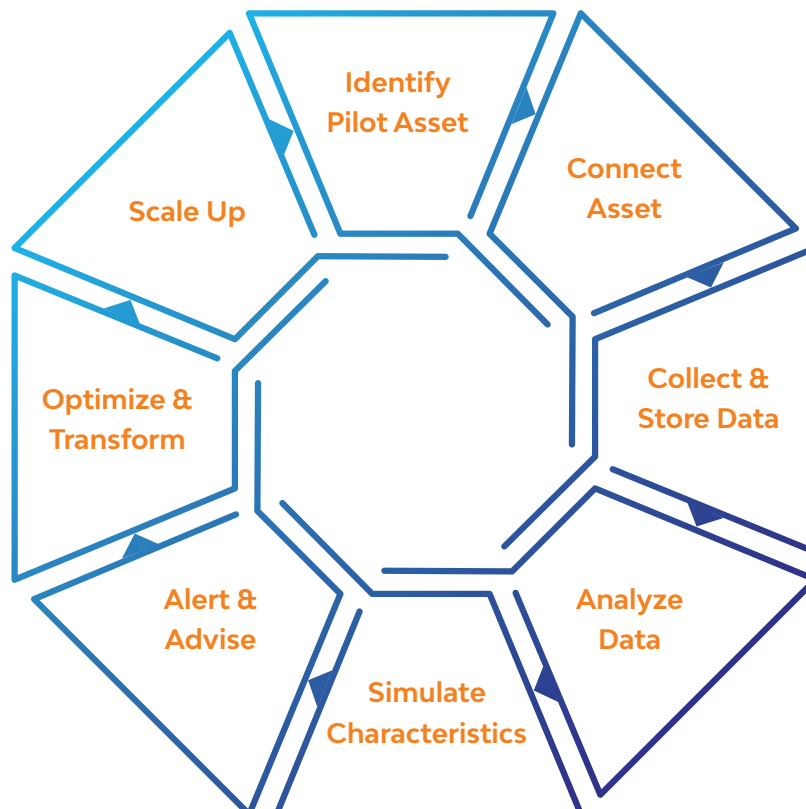
Manufacturing processes are becoming increasingly digitized, and Industry 4.0 is set to impact industries tremendously. Revolutionary digitization, spearheaded by Industry 4.0 technologies, is changing the way industries function. Real-time information availability, and predictability on the shop floor, is the need of the day. Being data-driven is the only option to improve efficiencies and be responsive to the changing needs. Building a digital twin is one of the most tangible options to not only drive digitization, but also realize faster ROI.

Why Adopt a Digital Twin?

A digital twin is a real-time digital replica of an asset, from its design to retirement. Such a group of digital twins can help in enabling a smart connected plant. The digital twin allows to visualize, predict and optimize plant operations at your fingertips, and can act as a single source of truth.

Improved predictability & reduced risk	Increased uptime & reliability of assets with alarms & notifications for immediate action	Maintenance cost reduction
Design improvements & faster prototyping	Continuous data-driven optimization	Streamlined operations & processes

Building a Digital Twin Strategy



Why Adopt a Digital Twin?

LTI, with its rich domain expertise in the industrial space - manufacturing, construction, energy & utilities - has harvested data from various assets to build functional digital twins. Our domain experts have identified the key parameters to be monitored, and applied the right analytics, and anomaly & lifing models, to deliver valuable outcomes, including alerts and early warnings.

We leverage reusable IoT assets drawn from our real-world experience of implementing enterprise-scale digital transformation for our parent group, L&T Construction, as well as for leading global industrial manufacturing clients.

The LTI Advantage

- Engineering heritage, giving access to the most critical assets on the shop floor.
- Ready-to-use library of 30+ digital twins, delivering transformational business outcomes at speed and scale.
- Data & know-how of over 300 assets across industries.
- Accelerated data-to-insight-to-action cycle, by leveraging pre-built twins and accelerators.

Some examples of assets and the key KPIs we monitor, using Digital Twins, for our clients:

Connected Pump for Leading Pump Manufacturer	Digital Twin for Wind Turbine for Leading Renewable Energy Company
Real-time tracking of pump health, and efficiency & utilization	Turbine health & efficiency monitoring, energy generation comparison
Digital Twin for Grader Truck for Construction Major	Digital Twin for Control Valve for Water Treatment Unit of Engineering Conglomerate
Fuel consumption tracking, digging & idle hours per day, and location tracking	Actuator health & utilization tracking, and energy consumption & volume supplied analysis

LTI (NSE: LTI, BSE: 540005) is a global technology consulting and digital solutions Company helping more than 300 clients succeed in a converging world. With operations in 30 countries, we go the extra mile for our clients and accelerate their digital transformation with LTI's Mosaic platform enabling their mobile, social, analytics, IoT and cloud journeys. Founded in 1997 as a subsidiary of Larsen & Toubro Limited, our unique heritage gives us unrivaled real-world expertise to solve the most complex challenges of enterprises across all industries. Each day, our team of more than 26,000 LTItes enable our clients to improve the effectiveness of their business and technology operations, and deliver value to their customers, employees and shareholders. Find more at www.Ltinfotech.com or follow us at @LTI_Global