DIGITAL THREAD, DIGITAL TWIN

The growth in manufacturing industry can frequently be inhibited by outdated processes, aging technology, and fragmented value chains. To address these challenges manufacturing companies need to ensure end to end connectivity across real and virtual word with an Integrated Digital Value Chain.

Tying core components of a value chain together creates a digital thread, an integrated overview of key planning and execution domains.

It allows organizations to connect key components – Engineering Design, product life-cycle management (PLM), supply chain management (SCM), enterprise resource planning (ERP), Manufacturing Execution System (MES), and customer relationship management (CRM) – drawing more data for actionable insights.

Business Challenges

Challenges faced during plant ramp up after long outage:

- Increased product complexity, and reduce New Product Introduction (NPI) lead time by 30%.
- Disparate systems and silos of data and typically 37% of time spent on data discovery.
- Complex multiprotocol integrations with human interference

Tech Mahindra Solution

Offerings will integrate Product, Production & Performance areas:

- **Product Integration**: Requirement Management, Engineering Design, Product Life cycle management, Caxtools, Product Costing are integrated
- **Production Integration**: ERP, MES, EAM, Quality systems PLCs, HMIs and other shop floor systems are integrated
- **Performance Integration**: SCM, Logistics, Warranty, CRM, and After Market systems are integrated.
- TechM offers custom & partner solutions for integrating these areas.

Business Benefits

- Seamlessly integrate product & create complete visibility across system
- Production & performance areas to reduce product lead time by 30% and Reduce rework by 15%
- Reduce cost of production & Improve process efficiency

Case Study →

TechM helped a leading supplier of commercial and military aircraft structures Digital Thread strategy in order to streamline the industrialization and development process.

Value delivered:
- Reduce lead time from Idea to Product delivery by 30%
- Reduce Development & Industrialization effort by 30%
- Reduce scrap and rework in production by 15%