



**Delivering Sustainable Value
with a Lens on the Future**

Reliable ● Efficient ● Optimized ● Safe

WHO WE ARE

Lummus Digital is a joint venture between two sister companies of The Chatterjee Group (TCG), a multi-billion dollar, multi-national corporation. Under Lummus Digital umbrella, Lummus Technology and TCG Digital come together with the common objective of driving acceleration for our customers while focusing on reinforced technology licensing and getting more from the existing throughout the asset lifecycle of refining, petrochemical, and gas processing sectors. And this is achieved through a synergy of our decades of technology licensing, strong process expertise, and operations experience along with in-depth knowledge and installed base of hyper-contemporary Big Data and AI technologies. By driving you towards autonomous operations of your plants and assets, we ensure that you thrive in the fast-changing energy and chemical landscape.



“Lummus Digital will play a leading role in shaping and accelerating the digitalization of our industry. We will help our customers enhance the value they extract out of their assets by combining the innovation and capabilities of both Lummus Technology and TCG Digital.
- **Leon de Bruyn**, President & CEO, Lummus Technology



The data platform of Lummus Digital is enabled with hundreds of state-of-the-art machine learning and analytics algorithms to help you derive maximum value from your capital investments. With deep process knowledge and technical expertise, we are in the best position to optimize margins, increase reliability, and enhance visibility.
- **Debdas Sen**, CEO, TCG Digital”



110+
Years of Industry
Legacy



130
Process
Technologies



2400+
Licensed
Units



500+
Man-years
Experience in
AI/ML Solutions



50k+
Avg. Sensors'
Data Handled /
Facility



30TB+
Total Volume of
Data Handled
/Facility

WHY US

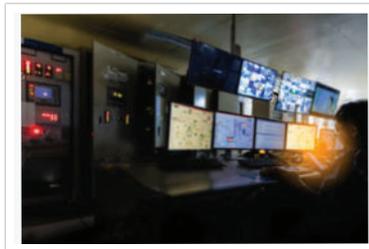
Through continuous innovation and co-creation, Lummus Digital prioritizes velocity to value with a 360-degree view of operational excellence, reliability, profitability, safety, and agility. As you crystallize the need for digitalization our streamlined and integrated approach helps solve complex and impenetrable problems. Our leading process know-how, subject matter expertise, and rich experience in IOT, Cloud, Big Data, advanced analytics, AI and mobility act as a catalyst for change, driving optimized asset performance, production, supply chain performance, and consequently sustainable growth. In today's environment where an instant response is imperative, we enable our clients to embrace value-driven decision making which will leave a game-changing impact in the foreseeable future.

OUR SOLUTION PORTFOLIO

Our solutions portfolio covers a spectrum of sensors and assets to process units, plant-wide, and business solutions focusing on efficiency, reliability, uptime, margin, collaboration, and safety. Most of our solutions yield a return on investment (ROI) of 50%+ with a payback of less than 6 months.

PERFORMANCE MONITORING

- » Remote Monitoring
- » Operations Digital Twin
- » Benchmarking
- » Expansion/ Debottlenecking Diagnosis
- » Maintenance Materials & Resources Planning
- » Maintenance Technician Augmentation - AR



SYSTEM / ASSET HEALTH PREDICTION

- » Process Upset/ Shutdown/ Off-spec Prediction & Detection
- » Catalyst Residual Life & Performance Forecasting
- » Asset Performance (Rotating & Static, Valves & Instruments)
- » Corrosion Detection & Image Analytics



SYSTEM OPTIMIZATION

- » Profit Optimization
- » Yield Optimization
- » Production Optimization/Debottlenecking
- » Feedstock Blend Optimization
- » Energy Optimization
- » Product Grades Sequence Optimization
- » Advanced Process Control (APC)/ AI-based MPC



PLANT-WIDE PERFORMANCE IMPROVEMENT

- » Demand Forecasting and Production Planning
- » iOps (Integrated Operations) - KPIs Reporting
- » Inventory Optimization
- » Procurement Spend Analytics
- » Products Pricing Optimization
- » Lab Analytics

WHAT SETS US APART



Cutting edge tools which consolidate, organize, analyze, and present data from disparate sources



First principle and data science embedded solutions to get more insights and eliminate false negatives and false positives



Unique execution model which brings process know-how, operations experience, and Big Data/AI under one roof to deliver trusted solutions



Templatization of process and asset models along with frameworks of AI/ML for quick implementation and higher ROIs



Robust and scalable solutions which drive increased agility



Not limited to monitoring the performance and predicting the issue but detecting the cause and finally recommending/implementing actions

To have more understanding and details of our solutions and capabilities, please get in touch at: contactus@lummusdigital.com. Let's disrupt, transform, and grow together