



GE's Brilliant Manufacturing suite integrated machine data at GE's Pune multi-modal facility and reduced downtime

GE Multi-Modal Facility in Pune, India

Serves GE Power, GE Aviation, GE Transportation, GE Oil & Gas, and GE Renewables

3 Centers of Excellence



- ▶ Machining
- ▶ Fabrication
- ▶ Assembly



67 acre campus with **250,000** square foot shop floor



Customer Challenge



Experiencing cost over-runs for high-volume, low-mix production on expensive machinery



Limited real-time visibility into machine data and manufacturing performance



Need to optimize labor and machine run time



Operators not supported with a system to fully notate reasons for machine downtime



No unified system to access technical information, record production, and quality data

Step 1: Gain real-time visibility with GE Digital's Brilliant Manufacturing

Connected sensors from 20 CNC machines



Integrated machine data



Visualized performance for all 20 machines on a single screen

Lean actions were strengthened with the real-time visibility of machines.

Formed new cross-functional team to analyze machine data and propose action plan to:



Reduce machine downtime



Enable operators to notate downtime



Enable operators to view 3D work instructions along with facility or record production and quality data

GE software solutions deployed:

- Discrete Manufacturing Software
- Plant Applications
- CIMPLICITY
- Predix

Annualized results



Created single visualization of integrated machine data



Implemented machine downtime notation system for operators

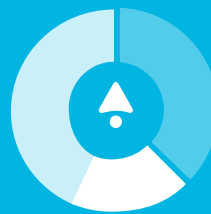


Unified user interface to provide technical, production, and quality data



\$1MM

Cost avoidance for one computer numeric control machine



45% to over 60%

Increased overall equipment effectiveness (OEE) in connected machines

Step 2: Gain Insights



Connect manufacturing to provide visibility for labor hours, task time, and work in progress



Decrease maintenance costs with predictive analytics



Integrate ERP, PLM, and MES systems to pull in quality, labor, and supply chain data



Leverage GE's Predix for visualization and advanced analytics for manufacturing

Find out how GE Digital's Brilliant Manufacturing can make you a 21st century manufacturing powerhouse. Ready to get started?

Visit www.ge.com/digital/brilliant-manufacturing

or call 1-855-YOUR1GE / 1-855-968-7143.



About GE Digital

GE Digital connects streams of machine data to powerful analytics and people, providing industrial companies with valuable insights to manage assets and operations more efficiently. World-class talent and software capabilities driving digital industrial transformation for big gains in productivity, availability and longevity. We do this by leveraging Predix, our industrial cloud platform purpose built for the demanding safety & security needs of industrials.