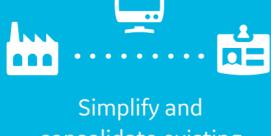




GE Aviation Digitally Optimizes Performance with Brilliant Manufacturing from GE Digital

The objectives of GE Aviation's strategic vision



Simplify and consolidate existing pillar applications and point solutions



Provide a unified user experience across enterprise to enable a holistic view of the organization and align KPIs



Create a scalable migration path to cloud-based microservices

Challenges



Multiple disconnected manufacturing systems across 80+ factories, more than 50% acquired over the last 10 years



Significant volume growth creating delivery pressure



No single user interface providing enterprise visibility for assessing progress and identifying challenges and areas for opportunity



Proactively managing risk between ERP, MES, quality, and labor tracking systems



Mix of discrete, process, and repair factories lacking a unified, immediate value chain

GE Aviation's needs



Data requirements on platform and applications



Execute solutions across broad array of digital maturities



Create digital foundations that are centralized, scalable, simplified, and secure



Demonstrate improvement with each effort

The digital journey: Stage 1 Make a plan, start small, scale fast

First: Identified enterprise-wide desired outcomes and value-based delivery plans



- ▶ Employed an aggressive 13-site MES-focused initial phase
- ▶ Applied continuous learning to accelerate additional functionality and complementary product development
- ▶ Executed parallel programs that maximize value and minimize time-to-value

Second: Transitioned from on-premise to cloud



- ▶ Leveraged Predix to further develop capabilities specific to aviation and to GE Digital's Brilliant Manufacturing suite
- ▶ Implemented WIP visibility and routing management across 10 repair sites in the initial phase to reduce inventory and address delivery pressure as order volumes increased

Third: Championed cultural adoption and change management



- ▶ Empowered local development and adoption using FastWorks Agile Methodology
- ▶ Trained in-house Predix developers to expand capability and develop extensions such as slot tracking and standard work optimization

Connected and complimentary initiatives

Simplify and integrate ERP, MES, PLM, and Time and Attendance systems to provide a more detailed and holistic cost view



Trained in-house Predix developers to expand capability and develop extensions such as slot tracking and standard work optimization

PREDIX

Connected Predix microservices at plants and customer sites for asset optimization



Capture process data and discrete manufacturing data to drive prioritized in-process improvement for value streams



Expanded traditional manufacturing capability to include additive and repair operations

The digital journey: Stage 2 Connecting and simplifying the value chain

Strengthen supply chain partnerships



- ▶ Partner with key suppliers to accelerate their own digital transformation
- ▶ Enable internal supply chain visibility across manufacturing, repair, and distribution

Strengthen customer partnerships



- ▶ Optimize on-time delivery, with visibility throughout entire process
- ▶ Enhance and expand traceability from engineering through delivery

Leverage the Predix ecosystem



- ▶ Deliver productivity improvements with the core Predix platform and apps, along with industry-specific applications

GE Digital software solutions deployed:

- Historian
- Plant Applications
- Production Manager
- CIMPLICITY
- Application Assembler
- Predix

Results achieved



\$1M savings from routing management



2%+ increase in productivity



20% more utilization of additive equipment

\$400K/year saved in reduction of quality losses from OEE solutions implemented



Increased customer satisfaction

Projected savings:



\$84M over 3 years



2.3 year payback

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 and process 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 help drive digital industrial transformation for big gains in productivity, availability, and longevity. It leverages Predix, the cloud-based operating system, purpose built for the unique needs of industry.