Genpact implemented smarter processes and analytics for a global aerospace manufacturer, leading to increased inventory visibility and 48% reduction in raw material inventory

About the Client
A global aerospace equipment manufacturer

Industry
Aerospace

Business Need Addressed
To run the global manufacturing operations effectively by increasing inventory visibility and optimizing working capital

Result
• Increased raw material inventory visibility across the global supply chain
• Reduced raw material inventory by 48%, which resulted in $31 million impact on working capital over one year
• Increased the raw material inventory turns from 12 to 17

Recognition
Listed as “100 Great Supply Chain Projects” by Supply and Demand Chain Executive (SDCE), 2011

The client has a large and complex supply chain however lacked a single and comprehensive real-time view of its operations. This resulted in high raw material inventory across its global manufacturing units. Genpact used its proprietary inventory management solution, ‘Inventory Optimizer’, to deploy smarter supply chain processes and analytics in the client’s operations.

The result: Greater inventory visibility, 48% reduction in raw material inventory and 41% increase in inventory turns.

Business Challenge
The client wanted to run its manufacturing operations optimally and intelligently. However it was facing the following challenges:

• High raw material inventory across global manufacturing units
• Lack of single and comprehensive real-time view into its operations due to a large and complex supply chain model - over 30 product lines and more than 20,000 components assembled in 6 assembly shops globally
• High working capital due to low inventory turns, resulting in $60 million in raw material inventory build-up
• Delay in production due to stock outs of the required inventory

The Genpact Approach
Genpact partnered with the client for a comprehensive assessment of its end-to-end supply chain process. This assessment was done by using Genpact’s proprietary inventory management solution, ‘Inventory Optimizer’, which revealed that excess raw material inventory and low inventory turns were due to

• Limited or no visibility into existing unused inventory due to lack of integration between different inventory tracking platforms
• Unstructured decision support for planners and forecasters due to unclear understanding of root causes for excess inventory
• Experience-based judgment and non-statistical processes for determining order quantities leading to inaccurate demand forecasts
Variable transit, ordering and processing times leading to longer delivery times to the assembly and production lines

**The Genpact Solution**

Genpact brought in its deep granular process expertise, rich supply chain experience and operational excellence and Lean Six Sigma rigor to develop and implement:

**Smarter Processes**

- Web-based inventory analysis tool to provide:
  - **Real time enterprise view of inventory:** This enabled visibility into stock keeping units (SKU) on hand, enhanced their new orders process and improved the tracking of the global supply status. It also provided clear analysis of existing inventory based on usage patterns.
  - **Structured decision support:** The tool provided forecasters and planners with details on the main drivers for excess inventory through structured root cause analysis. This included data on excess inventory volume and span along with the departments responsible for it. This enabled planners to design solutions to obviate inventory issues.
  - **Dashboards** for in stock inventory reporting and trend data to planners
  - Introduction of a new process for continuous assessment of actual transit time to planned time, carrier and route analysis. This resulted in lead time reduction and improved incoming delivery of raw materials.

**Smarter Analytics**

- Use of analytical models to calculate safety stocks and ordering criteria based on the business strategy for its inventory and service-level targets

**Smarter Technology**

- Implemented e-Kanban for select parts, a real-time automated demand signaling process across the supply chain that helped the units shift from forecast dependent manufacturing to one based on actual demand. This helped reduce variation in inventory planning and removed any impact of inaccurate forecasts.

**Business Impact Delivered**

Genpact powered the aerospace manufacturer through a continuum of smarter processes, smarter analytics and smarter technology to deliver better business outcomes and help run operations intelligently and effectively.

<table>
<thead>
<tr>
<th>Financial Impact</th>
<th>Operational Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>• $31 million impact on working capital</td>
<td>• End to end and real time inventory visibility and tracking across multiple global locations</td>
</tr>
<tr>
<td>• 48% reduction in raw material inventory</td>
<td>• Increase in the raw material inventory cycle from 12 to 17</td>
</tr>
</tbody>
</table>

These benefits led the client to extend Genpact’s inventory optimization services to other business units resulting in inventory reduction by approximately $100 million and increased service levels.

---

**About Genpact:**

Genpact Limited (NYSE: G), a global leader in business process and technology management services, leverages the power of smarter processes, smarter analytics and smarter technology to help its clients drive intelligence across the enterprise. Genpact’s Smart Enterprise Processes (SEP™) framework, its unique science of process combined with deep-domain expertise in multiple industry verticals, leads to superior business outcomes. Genpact’s Smart Decision Services deliver valuable business insights to its clients through targeted analytics, reengineering expertise, and advanced risk management. Making technology more intelligent by embedding it with process and data insights, Genpact also offers a wide range of technology services. Driven by a passion for process innovation and operational excellence built on its Lean and Six Sigma DNA and the legacy of serving GE for more than 15 years, the company’s 55,000+ professionals around the globe deliver services to its more than 600 clients from a network of 58 delivery centers across 16 countries supporting more than 25 languages.

For more information, visit [www.genpact.com](http://www.genpact.com), Follow Genpact on Twitter, Facebook and LinkedIn.

Copyright © Genpact 2012. All Rights Reserved. www.genpact.com

---

**For More Information, Contact:**

Josh Rogowsky
Vice President, Genpact
josh.rogowsky@genpact.com

Suresh Iyer
Vice President, Genpact
suresh.iyer@genpact.com

Visit us at
[www.genpact.com/home/industries/aerospace](http://www.genpact.com/home/industries/aerospace)