Manufacturing Atlas
Optimizing and transforming your supply chain and manufacturing operations

CGI’s Manufacturing Atlas is a proven approach for supply chain performance improvement that helps optimize and transform your supply chain and manufacturing operations through proven manufacturing methods and digital technologies.

Manufacturers that lead in operations and supply chain performance outperform the competition and deliver higher shareholder returns. These leaders apply methods, such as Value Stream Mapping, Lean, Kanban, TCO, Six Sigma and TPM, as accepted manufacturing methods to improve manufacturing operations and supply chain performance. All these methods focus on optimizing core business processes, the flow of materials and the availability of assets.

Surprisingly, related information streams are frequently left untouched. This is remarkable given the fact that optimizing performance necessitates that the right people get the right information at the right moment. In other words, it's critical to provide the right information and insight for the best possible decisions to be made and performance levels to be improved across the supply chain.

This is now possible using innovative Manufacturing 4.0 technologies like the Internet of Things, big data analytics and smart wireless sensors, which have all been smoothly integrated with existing process controls, manufacturing operations and resource planning systems, and are supported by cybersecurity and cloud computing solutions. Manufacturing companies that implement greater collaboration and digitization across the value chain through Manufacturing 4.0 approaches and technologies become more agile, real-time, customer-centric organizations, through efficient internal and external collaboration, facilitated by data.

Part of CGI’s comprehensive manufacturing IT services, CGI’s Manufacturing Atlas is an approach for supply chain performance improvement that takes into account the entire manufacturing operation and supply chain lifecycle, including the optimization of processes, materials, assets and information. It leverages cross-functional collaboration and data continuity across traditional silos and throughout the ecosystem, through new digital technologies, in order to help manufacturing companies transform into more agile, customer-centric and competitive organizations.
WHAT MANUFACTURING ATLAS OFFERS

Manufacturing Atlas consists of a comprehensive portfolio of offerings. It delivers expertise, best practices and solutions to support the complete business change cycle—from completing an initial feasibility study and making an investment decision to rolling out solutions and delivering ongoing improvement initiatives.

Effectively optimizing and transforming your manufacturing operations, supply chain and supporting information systems, requires well thought out modifications and effective implementation. Manufacturing Atlas provides an integrated approach to successfully maximize any value addition, while minimizing business risks.

It addresses the impact on all relevant aspects of your operating model:

- Products and services
- Organization
- People and culture
- Processes and information
- Applications
- Data
- Infrastructure

Manufacturing Atlas supports all four steps in the change cycle:

**Vision:**
Build your vision, discover your improvement potential, and assess the feasibility of investing in manufacturing and supply chain operations management systems.

- Benchmark data to compare your performance with that of your peers
- Transparency in linking challenges to their root causes
- Secure and consistent drivers and principles, based on CGI best practices
- Approaches that assure business and IT alignment
- Clear, integrated, ready and consistent templates
- Methodology based on global standards like APQC, SCOR, ISA 95 and CGI best practices
- Manufacturing 4.0 maturity assessment
- An optimal combination of existing systems and new innovative Manufacturing 4.0 solutions

**Shape**
Develop a blueprint of future architecture and a solid investment case.

- Ensure consistency in process mapping through CGI methodology that uses CGI best practices for manufacturing and supply chain processes

MANUFACTURING 4.0: ENABLING THE DIGITAL CONTINUUM

We enable manufacturing organizations to achieve digital transformation and stay ahead of the competition by becoming agile, customer-centric organizations.

We believe that data continuity across traditional functional silos and throughout the ecosystem, enabled by new digital technologies, plays a key role in supporting this objective. The “digital continuum” is the backbone that enables organizations to become more competitive through efficient internal and external collaboration, facilitated by data.

CGI’s portfolio of solutions, services and innovations help manufacturing organizations optimize their supply chain and focus on bringing additional business value by combining industry expertise with business intelligence, data management expertise and integration skills.

We help drive cross-functional collaboration and data continuity across traditional silos and throughout the ecosystem, helping to enable the digital continuum.
• Complete a set of functional and non-functional requirements, based on global standards
• Prioritize requirements using an effective approach and ensure consistency with business drivers and principles
• Attempt a unique one-shot visualization

Change
Successfully implement and ensure adoption by your staff.

CGI brings:
• Global coverage, regional support
• Business and IT alignment, also during template realization
• GAMP (Good automated manufacturing practice) based solution realization
• 35 years of experience in these domains, including validation
• The largest dedicated practice with over 1300 specialists, who bring strong domain expertise
• Deep industry insight into manufacturing execution system (MES) market developments, demonstrated through CGI’s global MES Industry Product Survey that has been conducted annually over the last 16 years

Deliver
Continuously optimize and evolve.

We bring you:
• Capability to deliver a vast range of services
• Experience of working for over 2000 clients globally in this domain
• Knowledge of legislation and regulation in regulated industries like food, pharmaceuticals and aerospace

CGI’s Manufacturing Atlas provides the support you need to succeed every step of the way.

MANUFACTURING ATLAS AT WORK

We’ve been privileged to work with global clients for over 35 years. Here is a snapshot of some of the clients that we’ve been able to help:

• CGI helped a major company in the petrochemical optimize industry production processes and increase output by 20%.

• CGI helped one of the largest tire manufacturers in the world ensure winter tire stock in distribution centers in order to meet demand. CGI has been managing this manufacturer’s outsourced supply chain applications in an industry leading co-management approach for many years.

CGI’S OFFERINGS FOR THE MANUFACTURING INDUSTRY:

CGI’s portfolio of solutions, services and innovations help manufacturing organizations optimize their supply chain and focus on bringing additional business value by combining industry expertise with business drivers, data management expertise and integration skills.

CGI offerings for the manufacturing industry include:
• Digital customer
• Collaborative demand management
• Perfect distribution
• Integrated plant
• Control tower
• Transport
• Maintenance and services
• Accelerated development
• Enterprise enablers

Our offerings include repeatable approaches, platforms and solutions.

For more information about CGI in manufacturing, visit www.cgi.com/manufacturing
• CGI has supported a global automotive and industrial equipment company for many years. Our services range from cost-efficient back-office support to IT strategy and build-up implementation of manufacturing IT in new car plants.

• CGI helped a multinational manufacturer of nutritional products and industrial material decrease costs while improving operational efficiency. We redesigned application management processes to improve efficiency by introducing lean manufacturing and created an MES roadmap to support future business developments. In addition, we also instituted an unambiguous delivery model by implementing a standard service catalogue to provide (upfront cost) insight to the business.