

Manufacturing Execution Systems: Managing Every Aspect of Production

Manufacturing execution systems (MES) from CGI help you manage every aspect of production—from planning jobs to controlling production lines to managing raw materials to quality control.

A manufacturing plant is a complex and fast-paced place. Running a super-efficient plant is the ultimate goal of every manufacturer. To maximize efficiencies, you need to be able to have information about what's happening in every part of the plant. That way you can make better, faster decisions.

As a leading provider of manufacturing IT services, including manufacturing systems development and integration, CGI offers specialized MES expertise and a comprehensive suite of MES solutions. MES is becoming increasingly important for buyers, suppliers and manufacturers. Today buyers have more technologies and solutions to choose from than ever before. This is clear from the survey that CGI conducted among almost 70 suppliers worldwide on MES products, developments in the manufacturing sector in the field of standards, trends and observations.

WHAT CGI MES OFFERS

CGI delivers specialized manufacturing execution systems that enable you to see and control what's going on within your plant more effectively and easily. We design, build and rollout MES solutions based on your unique industry, technology and business needs, using leading technologies like AspenTech, Camstar, OSIsoft, Parsec, SAP, and more.

CGI's belief in the power and potential of MES is based on our extensive experience in the field. We are a member of the MESA (Manufacturing Enterprise Solutions Association) International global community and its driving force in Europe.

With CGI's MES capabilities, manufacturers gain the following:

- Faster identification and implementation of changes to the production process based on evolving market, customer and other business needs
- Optimal use of all plant assets
- Reduced manufacturing time and costs
- Greater, faster return on investment
- Increased profitability
- Improved visibility and transparency

CGI MES CENTER OF EXCELLENCE

Through our MES Center of Excellence, we continue to maintain and grow our international expertise. We partner with leading MES and enterprise resource planning (ERP) suppliers, and our experience in wireless business solutions brings additional strengths for those seeking to take advantage of emerging technologies.

We take an active role in the MES community, working closely, for example, with MESA, which is dedicated to promoting and sharing manufacturing excellence and best practices.



BENEFITS OF MES

- Improves perfect order delivery:
 - Right product
 - Right quality
 - Right place
 - Right time
 - Right profit margin
- Provides insight into causes of waste/losses
- Improves overall efficiency effectiveness (OEE) up to 20%
- Increases output from available resources
- Lowers production cost by:
 - Increased throughput
 - Better rework efficiency
 - Lower regulatory costs
 - Shorter cycle times
 - Improved change over
 - Higher yield
 - More accurate product quality
 - Less waste
- Lowers inventory level of raw material, work in process (WIP) and finished goods
- Improved decision making based on consistent and reliable real-time information (dashboards)

CGI'S ANNUAL MES PRODUCT SURVEY



For more than a decade, CGI has published an annual MES Product Survey, an invaluable guide for evaluating MES solutions. Clients and business partners rely on the survey for detailed product overviews and insights into MES trends, and use it to shortlist and select the right solutions from among the multitude of MES suppliers.

The latest edition describes more than 70 MES products from almost 70 suppliers, and comprehensively talks about the capabilities of each solution and the focus of the vendor.

CGI has helped many clients across the industry, including the food and beverage, high-tech electronics, metals and pharmaceutical sectors to select their MES solution.

MES AT WORK

We've been privileged to work with some great clients over our 35 years in business. Here is just a snapshot of some of the businesses we've been able to help.

- **DSM:** Our support for DSM's manufacturing system enabled them to reduce costs by 18%. Our business consultants delivered an MES blueprint for various business processes. These systems now operate in more than 40 plants, from Chile to China. CGI's competence center (MESCC) in the Netherlands looks after both management and maintenance for DSM.
- **MARS:** We delivered an energy monitoring system (EMS) for adequate energy reporting to all energy end-users to improve their energy efficiency, significantly reducing energy consumption. CGI provided advice on the system architecture, and created the dashboards and report templates. The EMS was deployed in multiple factories.
- **Sime Darby/Unimills:** Based on their updated business strategy, CGI designed an enterprise architecture comprising MES, quality control (LIMS), product lifecycle management (PLM), detailed production scheduling, and integration with ERP and the process control systems. This architecture has been realized by deploying or upgrading the various applications, enabling Unimills to successfully make the transition from producing bulk products to delivering specialty products for many customers.

ABOUT CGI

Founded in 1976, CGI is one of the largest IT and business process services providers in the world, delivering high-quality business consulting, systems integration and managed services. With a deep commitment to providing innovative services and solutions, CGI has an industry-leading track record of delivering 95% of projects on time and within budget, aligning our teams with clients' business strategies to achieve top-to-bottom line results.

CGI

- Helps build your vision, discover your improvement potential, and assess the feasibility of investing in manufacturing execution systems (MES)
- Provides an exclusive methodology to choose the right solution from the many broadly similar ones available more quickly, objectively and reliably
- Supports successful (tailor-made) implementation of MES and ensures adoption by your staff
 - Based on more than 35 years of experience in these domains, including validation
 - Applying methodologies based on world standards like SCOR, ISA-95, GAMP and CGI best practices
 - Aligning your operational processes and IT support
- Has over 1300 MES specialists, the largest dedicated practice with strong domain affinity
- Delivers SLA-based 24/7 maintenance and support of mission critical applications for many customers internationally

For more information about CGI, visit www.cgi.com/en/manufacturing or email us at info@cgi.com.