What is the MES Product Survey?

For the past 17 years, we have tracked the latest trends in manufacturing execution systems (MES) through our MES Product Survey*. This year, 66 suppliers from around the world told us about their services, products, technologies, quality efforts and focus areas.

Despite mergers and acquisitions in the MES market, the response this year is higher than in previous years of the survey.

Why an MES survey?

Today, there are more technologies and solutions to choose from than ever before. So, while MES buyers now have far more options from which to choose, they also face greater challenge in finding the right solution.

What’s in it for you?

Our clients and business partners eagerly look forward to the survey, because it provides clear product overviews and insights into market developments. We hope this survey helps you shortlist and choose the right solutions from among the multitude of suppliers.

What to expect in the 2016 survey

Despite recent takeovers and mergers in the MES market, we continued to receive an enthusiastic response to the MES Product Survey. In 2016, like in previous years, suppliers from around the world shared information about their various service, product and technology offerings, along with their quality initiatives and focus areas.

While in previous years vendors focused on production operations, this year’s survey revealed that MES products now increasingly support quality, maintenance and inventory operations.

Another new trend is that a growing number of MES solutions now run in the cloud. Today, more than 75% of products can be operated in the cloud, as compared to just more than 50% of them two years ago. The number of vendors who can offer their solution as a service (SaaS) is on the rise, with 42% of vendors offering this option. In fact, some of them have transformed their business model completely and only deliver MES as SaaS.

In this survey, more vendors reported offering preconfigured solutions and modules for industry-specific processes than ever before. While accepting the limitations of focused products, customers are increasingly selecting these niche products to adopt “best practices” in specific areas, thereby accelerating the pace of implementation and reducing costs.

With the goal of lowering the total cost of ownership (TCO) even further, participating vendors also are offering enhanced support for application and master data maintenance on a daily basis. In addition, they are now providing customers with improved tools to configure their applications, facilitating better support for operational processes at a lower cost.

*The MES Product Survey is part of CGI’s Manufacturing Atlas framework. This framework is based on 30+ years of experience in manufacturing excellence. Through this framework, we deliver best practices and technologies for optimizing manufacturing operations, regardless of market, size or business challenge.
1. INTRODUCTION
   1.1 MES Product Survey
   1.2 Objectives
   1.3 Participants
   1.4 MES product selection
   1.5 Reading guide

2. OBSERVATIONS AND TRENDS
   2.1 Business Issues
   2.2 Manufacturing maturity
   2.3 Metrics matter
   2.4 Business Case and justification for MES
   2.5 Global manufacturing
   2.6 Collaborative manufacturing
   2.7 Industry 4.0 and Advanced Manufacturing
   2.8 Smart Manufacturing roadmap
   2.9 Internet of Things
   2.10 Big data
   2.11 Cloud and SaaS
   2.12 Smart Sensor and Lab-on-a-Chip
   2.13 Security
   2.14 Energy Management (ISO 50001)
   2.15 Sustainability and lean
   2.16 Implementation strategy: DevOps

3. MANUFACTURING EXECUTION SYSTEMS (MES)
   3.1 Manufacturing Execution Systems (MES)
   3.2 Marking out with other systems
   3.3 Multi-site template-based MES
   3.4 Importance of domain expertise

4. STANDARDS AND BEST PRACTICES
   4.1 CGI’s Manufacturing Atlas
   4.2 MESA International
   4.3 ANSI/ISA-95 Standard
   4.4 B2MML Standard
   4.5 KPI-ML Standard
   4.6 Validation and regulatory compliance
   4.7 Serialization
   4.8 MES and ERP
   4.9 Demarcation ERP and MES
   4.10 MES and LIMS
   4.11 MES and Enterprise Asset Management (EAM)
   4.12 MES, PDM and PLM
   4.13 MES and Warehouse Management
   4.14 MES and Data historians
   4.15 Integration approaches

5. RESULTS OF THE 2016 SURVEY
   5.1 Summary
   5.2 Scope of the questionnaire
   5.3 Production and logistical typologies
   5.4 Industry sectors
   5.5 Preconfigured solutions
   5.6 MESA compliance
   5.7 MESA strategic initiatives
   5.8 Smart Manufacturing
   5.9 ISA-95 compliance
   5.10 Configurability
   5.11 Vendors’ quality assurance

6. DETAILS PER PRODUCT
   6.1 Product information sheets
   6.2 ISA-95 compliance details
   6.3 Scores for support of manufacturing operations

7. ANNEXES
   A. Tables
   B. MESA definitions and white papers
   C. Details ISA-95 compliance
   D. Product information sheets

CGI’s Manufacturing Atlas
Providing the right information, in the right format, at the right moment, to the right person is crucial for enabling integrated decision-making and execution. Relevant, connected and aligned performance insight for all roles is created through personalized dashboards. This supports knowledgeable, integral decision-making, which results in operational and business performance improvement.

It is all about visibility and transparency throughout the supply chain and manufacturing process. CGI’s Manufacturing Atlas approach ensures alignment between your manufacturing IT, supply chain, manufacturing strategy, optimization programs and daily processes. Areas such as application landscape, master data ownership, and strategic scenarios are mapped on the business function model to create transparency and understanding.

In this way, CGI’s Manufacturing Atlas approach eliminates bottlenecks and disarray, and shows where and how improvements are having an impact. Effectively managing change from an operational or supply chain perspective involves certain milestones. The Manufacturing Atlas methodology supports steps toward achieving these milestones. It offers best practices to support the full change cycle, from feasibility studies to continuous improvement initiatives in the changed operations environment.

Get your copy of the MES Product Survey

CGI clients receive a complimentary copy of the survey
Email us: info@cgi.com
www.cgi.com

CGI’s Manufacturing Atlas
Providing the right information, in the right format, at the right moment, to the right person is crucial for enabling integrated decision-making and execution. Relevant, connected and aligned performance insight for all roles is created through personalized dashboards. This supports knowledgeable, integral decision-making, which results in operational and business performance improvement.

It is all about visibility and transparency throughout the supply chain and manufacturing process. CGI’s Manufacturing Atlas approach ensures alignment between your manufacturing IT, supply chain, manufacturing strategy, optimization programs and daily processes. Areas such as application landscape, master data ownership, and strategic scenarios are mapped on the business function model to create transparency and understanding.

In this way, CGI’s Manufacturing Atlas approach eliminates bottlenecks and disarray, and shows where and how improvements are having an impact. Effectively managing change from an operational or supply chain perspective involves certain milestones. The Manufacturing Atlas methodology supports steps toward achieving these milestones. It offers best practices to support the full change cycle, from feasibility studies to continuous improvement initiatives in the changed operations environment.

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.