

INsights

Semiconductor

Industry Drivers

Competition, Market-forces, Regulatory Requirements, Growth-goals...

- Increased global competition is renewing emphasis on product innovation
- Fast-changing market needs are demanding flexible and responsive data management systems
- Shortened shelf life of OEM products is shrinking design lifecycles
- Competition and OEM mandates are squeezing margins
- New design processes, combined with smaller semiconductor process geometries, are forcing tighter collaboration between Design and Manufacturing
- Shorter product schedules and resource constraints necessitate Design IP and SOC re-use and collaboration with third-party IP Partners
- Basel II, SOX and the Personal Data Privacy & Security Act forces C-level management to take responsibility for information shared with all partners, suppliers and customers

Corporate Strategies

Common strategies adopted in response to industry drivers

- Remove process costs via automation, system consolidation and data synchronization
- Define, create, track and measure common enterprise processes
- Adopt quality methodologies (Six-Sigma, ISO & ESSI) and best practices for critical processes
- Improve portfolio accuracy, through-put and kill rates to ensure pursuit of profitable opportunities
- Reduce configuration errors and leverage higher hit rates on pre-scheduled Fab windows
- Achieve cost/time savings through re-use of IP and systems
- Consolidate and develop strategic suppliers and partners
- Reduce mask prep costs through process automation and increased piggy-backing

Business Value Assessment



ENOVIA MatrixOne is a recognized leader in Product Lifecycle Management (PLM) for the Semiconductor Industry. We understand the industry drivers and corporate strategies necessary to deliver innovative new products to the market, and the role that PLM can play in that success.

In this report you will find specific metrics that our customers are using to measure the success they have achieved in developing strategies and solutions for improved product development through PLM.

These results have come from the MatrixOne Business Value AssessmentSM (BVA) Program.

What is a BVA?

- The Business Value Assessment (BVA) is a methodology and analysis toolset provided by ENOVIA MatrixOne. It enables customers to evaluate and link software solution capabilities with benefit metrics and their associated improvement values.
- The BVA complements the technical capability evaluation of a software solution by answering the question: how and where will I realize the benefits of the solution?
- A BVA is often run in parallel to a formal technical evaluation process and maintains the objectivity of that process.
- The output of a BVA is a business and financial case for the ENOVIA MatrixOne software solution as well as a roadmap of metrics to be measured for value attainment.

The Metrics

Metric improvements observed or projected (baseline ranges from manual and sub-optimal systems):

Time Metrics (Average Reduction %)		Operational Metrics (Average Improvement /Reduction %)	
Searching for Data	50-60%	Routing/BOM Accuracy	35-80%*
Entering/Re-keying Data	40-75%	Product to Market/On Time	15-40%*
Quotes/Estimates Preparation	20-40%	Product Launch Costs	10-35%
Design Authoring/Management	5-15%	Cost of Quality (Rework, Scrap, Obsolete, Excess)	25-40%
Change Initiation/Management	20-40%	Cost of Mask Prep & Respins	5-15%
Time Management Programs	~35%	Cost of Missed Fab Schedule	5-15%
Time Reporting	40-60%	IT Maintenance and Admin. Costs	15-35%
Personnel (Hiring Practices) Metrics (Average Reduction %)		Revenue Metrics (Average Reduction /Improvement %)	
Staff Avoidance (Program, Procurement, IT)	~10-15% FTE/Yr	Cost of Launch Delay (Per Day or Week in Revenue)	15-30%*
Cost of Staffing (Interview, selection, training)	~20%	Additional Product Throughput	10-25%
		Earlier to Market Margins	5-15%
		Lost Margin	~10%
		Lost Sales	5-15%
		Goodwill	Significant, but Subjective
Cost of Goods (materials/labor) Metrics (Average Reduction %)		<small>Results may vary. Information contained in this document is provided "AS IS" and is subject to change. ENOVIA MatrixOne does not make and disclaims any express or implied representations, warranties or guarantees, including any implied warranties of merchantability or fitness for a particular purpose, regarding metrics, results, benefits, savings, value or any other information contained in this document.</small>	
Direct Material/Components	~3-15%		
Vendor Premium/Penalties	10-25%		
Raw Material Cost	~1-5%		
Outsourcing Costs	10-25%		

Enabling Solutions

Solution components driving metric improvements:

Capability/Challenges

- Design Data Management Manage complex IC configurations for both analog and digital. Automate design processes and tasking. Simplify visibility and access.
- Issue Management & Tracking Manage issues from all levels of the organization, design to execution; Automate processes and tasking.
- Organize & Distribute IP Manage multiple versions and data types; IP usage analysis (where-used), templated IP profiles.
- Program Management Manage resources across multiple locations & partners. Improve visibility and accountability of project deliverables and tasks.
- Operations Management Collaborate w/Fabs & IP Partners on product configurations, mask prep, assembly and test collaboration.

Solutions

- MatrixOne's Synchronicity Developer Suite® provides secure multi-site design collaboration, management and design tool integration for every stage in the development process.
- MatrixOne's Synchronicity Publisher Suite® w/IP Gear™ provides tiered issue and change processes and tracking of issues from Design to Fabrication.
- MatrixOne's Synchronicity Publisher w/IP Gear™ enables sharing of design information in, and between, companies; (i.e. cataloging of IP, libraries and firmware; IP Helpdesk with issue tracking).
- MatrixOne Semiconductor Accelerator for Enterprise Project Management™ (EPM) provides visibility into deliverable status with management dashboards with linkages to WBS, tasking and design deliverables. Includes direct links to rules-based Synchronicity DM deliverable status.
- MatrixOne Semiconductor Accelerator for Design to Manufacturing™ (D2M) enables organizations to accurately align product requirements to design outputs and assure process execution and tasking, in a single repository, to manage documents, configurations and change

