

# INsights

## Automotive

### Industry Drivers

Competition, Market Forces, Regulatory Requirements, Growth Goals...

- Increased global competition is renewing emphasis on product innovation
- Increasing electronic content is making car designs and after-market servicing more complex
- Shrinking product lifecycles are accelerating product time to market
- Competition and OEM mandates for lower costs are shrinking supplier margins
- OEMs are transferring a greater percentage of vehicle responsibility to the supply base
- Evolving regulatory requirements are placing greater emphasis on quality certifications
- Warranty management is being pushed to suppliers
- OEMs are actively pursuing supplier consolidation
- Volatility in commodity pricing is challenging product design considerations and margin stability
- Recycling requirements are extending the window for product management and product information requirements

### Corporate Strategies

Common strategies adopted in response to industry drivers

- Leverage the supply chain to increase competitive advantage through innovation
- Achieve cost and time savings through re-use of systems, BOMs, components, and common raw materials
- Drive cost out of processes across the organization through automation, streamlining, and synchronization
- Consolidate the supply base and develop strategic suppliers and partners
- Emphasize process definition—the common enterprise processes—then track and measure those processes as a basis for improvement
- Adopt quality methodologies (APQP and PPAP) and best practices for critical processes
- Focus on improving the accuracy of project and program estimates in order to ensure the profitability of an opportunity

### Business Value Assessment



ENOVIA MatrixOne is a recognized leader in Product Lifecycle Management (PLM) for the Automotive 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 Assessment<sup>SM</sup> (BVA) Program

### What is a BVA?

- The Business Value Assessment (BVA) is a methodology and analysis toolset provided by 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 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<br>(Average Reduction %)                         |            | Operational Metrics<br>(Average Improvement /Reduction %)                                                                                                                                                                                                                                                                                                                                                                        |                                   |
|---------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| Searching Data                                                | 20-60%     | BOM Accuracy                                                                                                                                                                                                                                                                                                                                                                                                                     | 40%*                              |
| Entering/Re-keying Data                                       | 75%        | APQP/PPAP Accuracy/On Time                                                                                                                                                                                                                                                                                                                                                                                                       | 40%*                              |
| Quotes/Estimates Preparation                                  | 40%        | Product Launch Costs                                                                                                                                                                                                                                                                                                                                                                                                             | 35%                               |
| Design Authoring/Management                                   | 30%        | Cost of Poor Quality<br>(Rework, Scrap, Obsolete, Excess)                                                                                                                                                                                                                                                                                                                                                                        | 40%                               |
| Change Initiation/Management                                  | 25%        | Cost of Prototypes                                                                                                                                                                                                                                                                                                                                                                                                               | 30%                               |
| Project/Program Management                                    | 35%        | Tooling/Production Equipment Costs                                                                                                                                                                                                                                                                                                                                                                                               | 25%                               |
| Program Financial Analysis                                    | 20%        | Cost of Line Shutdown                                                                                                                                                                                                                                                                                                                                                                                                            | 15%                               |
| Activity Coordination                                         | 40%        | IT Maintenance and Admin. Costs                                                                                                                                                                                                                                                                                                                                                                                                  | 25%                               |
| Personnel (Hiring Practices) Metrics<br>(Average Reduction %) |            | Revenue Metrics<br>(Average Reduction /Improvement %)                                                                                                                                                                                                                                                                                                                                                                            |                                   |
| Staff Avoidance (Program,Procurement,IT)                      | 2 FTE/Year | Cost of Launch Delay<br>(Per Day or Week in Revenue)                                                                                                                                                                                                                                                                                                                                                                             | 30%*                              |
| Cost of Staffing                                              | \$40-60K   | MCM Changes Realized                                                                                                                                                                                                                                                                                                                                                                                                             | 10%                               |
| Cost of Goods Metrics<br>(Average Reduction %)                |            | Audit/Recovery Charge Back                                                                                                                                                                                                                                                                                                                                                                                                       | 20%*                              |
|                                                               |            | Lost Margin                                                                                                                                                                                                                                                                                                                                                                                                                      | 10%                               |
|                                                               |            | Lost Sales                                                                                                                                                                                                                                                                                                                                                                                                                       | 25%                               |
|                                                               |            | Goodwill                                                                                                                                                                                                                                                                                                                                                                                                                         | Significant,<br>but<br>Subjective |
|                                                               |            | <small>Results may vary. Information contained in this document is provided "AS IS" and is subject to change. 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                                      | 25%        |                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                   |
| Overtime                                                      | 10%        |                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                   |
| Raw Material Cost (spot buy)                                  | 1-5%       |                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                   |
| Outsourcing Costs                                             | 25%        |                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                   |

## Enabling Solutions

Solution components driving metric improvements

- MatrixOne Engineering Central™ provides necessary management of component definition, BOM structure, revision control, and global change management processes. Additionally, Engineering Central can also provide suppliers with needed design content via package and transfer capabilities.
- MatrixOne Program Central™ provides global program management templates and tools that improve New Product Development cycle times along with dashboard access to critical information on execution, risk and financials.
- MatrixOne Supplier Central™ provides capabilities that support APQP and PPAP quality methodologies for supplier development and performance including score-carding, supplier development plans and part development plans.



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