

> SUPPLY CHAIN MANAGEMENT

Maetrics understands the challenges facing the global life sciences industry, and has developed an approach to supply chain management that delivers tangible success throughout all tiers. This includes more than just appeasing regulatory bodies, but ultimately achieving business objectives and improving upon the bottom line of an organization.

Our Supply Chain Lean Compliance Program is more than a quality system on a diet. It is an approach that is tailored to members of the global life sciences industry's supply chain that ensures business processes are established and controlled to deliver what is valued by each individual organization. This approach utilizes tools developed and polished over 24 years, and takes into account the wisdom of the team – the “Maetrics 360° team.”

Maetrics has been involved with the development and implementation of systems for supply chain management processes at every level. This encompasses the approval of new vendors, auditing existing vendors, qualifying new materials and inspecting incoming materials. Incoming inspection sampling plans are adjusted based on supplier remediation and identified improvements as well as periodic reviews and adjustments of test strategies.

Because of Maetrics' collective experiences, the team is able to incorporate risk analysis while also consolidating approved supplier lists. This allows for a drastic reduction of audit costs by eliminating duplicate suppliers. The overall result of a Maetrics enabled Supply Chain Management engagement provides for substantially reduced costs and increased working capital through streamlined inventory controls.

Our Team

Our consultants have diverse and extensive experiences in the life sciences industry. Their backgrounds range from former FDA investigators to consultants and auditors with over 30 years of industry experience. All of our consultants have been formally trained and possess verifiable expertise. Additionally, our auditors are experienced in developing and implementing remediation plans. They not only identify problems and opportunities for improvement, but also provide ideas for practical solutions. Our audit experiences include:

- Domestic and international firms
- Start-ups to multi-national corporations
- Individual processes at a single site to full system audits of multiple sites

Along with their years of industry experience and proven track records of success, our experts integrate the following items and tools for a successful engagement:

- Maetrics utilizes the “360° team” approach bringing in technical and business expertise. Teams range from auditors and quality engineers to certified Lean Six Sigma Black Belts.
- Maetrics takes an all-encompassing diagnostic approach. Instead of being satisfied with a sub-system analysis that may appear favorable on its own, Maetrics delves deeper into how findings could have a different and potentially detrimental effect on the business as a whole.
- Maetrics understands that potential outcomes drive business risks and therefore behavior and decisions.
- Maetrics uses expected results as process inputs to determine process parameters such as order quantities, supplier lot sizes, # of suppliers, etc.
- Risk Analysis is conducted combining unique corporate insights with a variety of modeling tools and statistical analysis techniques including Pareto Analyses, Fault Tree Analyses, FMEAs and Confidence Intervals.

> EXAMPLE CASE STUDY #1

Initial State

A global life sciences organization has driven past behavior with traditional goals and objectives:

- Purchasing: items such as Purchase Price Variance (PPVs) and on-time material deliveries
- Quality Engineers (QEs): on-time closures of CAPAs and on-time supplier audits
- Quality Control (QC): on-time incoming material inspections

The current scorecards look good and would indicate no need for outside help. However, higher level working capital goals were not being reached.

Objective

The primary objective is to map the value stream, gather data from a business perspective and identify and implement opportunities to strengthen working capital.

Maetrics Engagement

- Maximized order quantity discounts.
- Analyzed, determined and monitored scheduling variabilities.
- Quantified delivery reliabilities.

- Reported first time pass rates to search for weaknesses.
- Reduced inspection cycle times.

Results

One of the immediate results achieved for Maetrics client included the reduction of safety stocks for critical components from 12 months to 1 month without a statistical difference in reduction of the expected percent of time the material may be out of stock. In addition, the remaining raw material inventory levels were reduced by 17% while decreasing out of stock percentages to less than 5% from a previous level of up to 32%. These significant results drastically improved the working capital from its initial state.

> EXAMPLE CASE STUDY #2

Initial State

A global life sciences organization was behind on supplier audits which escalated to a quality and regulatory issue. In effect, the approved supplier list grew beyond the abilities of the existing headcount in a period when adding headcount was not plausible.

Objective

The primary objective was to identify opportunities and drive improved efficiencies by streamlining the supplier database and improving supplier performance.

Maetrics Engagement

- Utilized a risk-based approach to analyze supplier quality and delivery performance levels.
- Defined and implemented supplier quality and delivery performance level optimization plans.
- Analyzed and reduced time for vendors to receive approval for manufacture of a component.
- Collectively monitored supplier issues and CAPAs to identify common issues.
- Commonly occurring supplier issues and CAPAs were addressed in a supplier handbook that relayed expectations, and provided supplier training.

Results

Without affecting current safety stocks, 23% of the approved supplier list was consolidated without impacting the business. Another 10% of the suppliers were put on hold for up to 12 months. These improvements allowed the company to catch up on audits of the remaining supplier base. Additionally,



through Maetrics' development of a comprehensive supplier handbook and implementation of a cohesive in-depth training protocol, all outstanding CAPAs were closed. These pivotal results were all accomplished without any significant risks to the business.