

CHANGING THE DISCUSSION ON WHO OWNS QUALITY

Quality is recognized as one of the key drivers of profit and brand promise for an organization. However, industry research indicates that many manufacturing organizations struggle with isolated quality efforts, visibility to 'true quality', and lack the quality culture needed to drive continuous improvement.

Driving meaningful change in quality within products and processes starts with the inclusion of every individual in an organization. Integrating personal accountability at every level in the organization is attainable and is contingent upon leadership focus, employee 'buy-in', customer interaction and real-time quality solutions to measure, track and refocus quality efforts on an ongoing basis.

Discover key solutions world class manufacturing companies have implemented that have changed the landscape of their quality efforts and clarified the question of who owns quality. Learn industry tactics and ideas on how to drive workplace transformation and ensure company-wide "buy in" supporting your quality initiatives today and in the future.

ISOLATED QUALITY EFFORTS

In sector after sector across the global economy, leading businesses recognize that *quality* is a key driver of success and profitability. Manufacturing environments in particular often put in place quality management departments whose role is to develop, implement, oversee and enforce effective quality assurance programs that meet internal and external regulations.

- Does delegating quality to one dedicated group result in achieving quality standards and continuous improvement?
- Does this effort result in world class quality products?
- Are quality efforts impacted if there is no culture of quality throughout the organization?



ONLY 5% OF QUALITY PROFESSIONALS STATED THEIR COMPANY'S PURSUIT OF QUALITY IS STATE-OF-THE-ART OR WORLD CLASS.

– FORBES INSIGHTS

DIFFERING POINTS OF VIEW

In many cases, employees in various departments feel their individual involvement in and the value they bring to quality initiatives is minimal. This atmosphere of detachment forces organizations to rely fully on understaffed and underfunded quality departments to manage the entire load.

In addition, such disengagement can lead to misunderstandings within the company about the actual state of quality. For example, research indicates that perceptions of how well a company fosters a culture of quality can vary significantly depending upon the role and department in the organization.²

In examining these variations, a *Forbes Insights* survey showed that senior executives tended to rate their organization's quality more favorably (75%) than the quality professionals (59%) they put in place to manage it. In addition, only 5% of quality professionals surveyed stated their company's pursuit of quality is state-of-the-art or world class².

CULTURE OF QUALITY CONSIDERATIONS:

Quality can make or break profit goals, yet many companies still struggle to move toward continuous quality improvement.

- Does your organization demonstrate a culture of quality inclusive of each role and department?
- Would a culture change help reduce company-wide discrepancies about overall quality achievements?
- Do your senior executives receive only watered-down reports about quality concerns on the manufacturing floor?
- Are the quality initiatives crucial to organization not fully supported by your management team - financially and in corporate communication?



QUALITY IS EVERYONE'S RESPONSIBILITY

– W. EDWARDS DEMING

QUALITY OWNERSHIP ISSUES

Many of today's jobs are becoming more and more specialized, narrowing each employee's focus and role within their team. In addition, tools and methods for communicating across teams are inefficient and ill-equipped to meet advancing manufacturing and technology changes. The usual "silos" of individual departments — engineering, production, quality, etc. — tend to grow taller and more disconnected with few solutions to bridge the gaps.

As each group concentrates on their own specific tasks and responsibilities, a type of natural workplace isolationism can take hold. With little opportunity to consider how their collective work intersects with the work of others and affects overall quality, the practical ability for each team to proactively incorporate quality initiatives into their own job activities seems more remote than ever.

Particularly in today's lean environments, it is no surprise that other teams — or even the quality team itself — can feel somewhat alienated from the quality process, and unenthusiastic about its usefulness.

LACK OF QUALITY CULTURE

The lack of a quality culture is evident in the news today. Companies everywhere continue to experience regular breakdowns in manufacturing as demonstrated by persistent recalls, reworks, scrap,

inefficiencies and the like. In some companies, quality issues — even dangerous quality issues — continue to slip through despite the efforts of skilled quality teams and well-defined global regulations.



WHAT ARE THESE ORGANIZATIONS MISSING?

These types of serious issues become a chronic risk when quality rests only on the quality department. It is simply not reasonable to hope that a single group can be fully proactive in their approach to quality, particularly in a complex manufacturing environment focused on extreme speed and efficiency.



QUALITY IS NEVER AN ACCIDENT. IT IS ALWAYS THE RESULT OF INTELLIGENT EFFORT.

– JOHN RUSKIN

It is far more likely that a quality group can only react to issues after the fact, such as demonstrated in the history of vehicle recalls. Even the most highly-qualified quality professionals need specialized

expertise and input from their colleagues — in engineering, production, operations, and other groups — to realistically implement and maintain a proactive approach reaching into every area.

These siloed work environments create increased lag times between the stages when a quality issue is identified, communicated, researched and final resolution. The delay between these steps can result in exponential costs and increased risk of customer discontent, negative brand equity, recalls, and attrition costs.

With coordinated efforts driving quality, issues can be comprehensively predicted, monitored and even prevented upfront, beginning with design and running straight through to production and beyond.

STRATEGIES FOR COMPANY-WIDE QUALITY

Many of today's leading manufacturers have achieved a sharp competitive edge due to the supporting intra-departmental *culture of quality* throughout the organization. In companies that have achieved world-class excellence, such as Proctor and Gamble or Coca-Cola, departments are no longer ignoring one another — or the quality team — but instead are able to jointly apply overriding principles of quality while focusing on their respective areas of expertise.³ Moreover, these quality initiatives are coordinated — and communicated — as an



ELIMINATE THE COMMON MISCONCEPTION THAT QUALITY ACTIVITIES ARE MERE *POLICING*.

integral part of everyone's job; the efforts are not optional add-ons, nor do they cause an increased workload.

It is no secret that establishing such a cohesive focus on quality within a manufacturing environment can be challenging and requires certain prerequisites.

A CRUCIAL FIRST MILESTONE

Successful manufacturers work with their various teams to eliminate the common misconception that quality activities are mere *policing*.



QUALITY MEANS DOING IT RIGHT WHEN NO ONE IS LOOKING.

— HENRY FORD

Communication is the cornerstone in the building of this culture of quality. Yet it was identified in the Forbes Study, that only half of organizations surveyed stated that their quality vision is clearly understood throughout the organization.³ When quality values and core visions are communicated clearly and woven throughout the fabric of the organization, employees begin to see the unique importance of their own roles.

In so doing, employees begin embracing quality as a personal responsibility. In accepting this new responsibility as part of their current role — and in having the right tools and techniques to easily do so — each employee gains firsthand proof that their own work directly impacts the work of other people, departments, and processes, and vice versa. This comprehensive engagement drives quality.

Participation in communication venues such as forums encourage employees to conveniently voice quality concerns, suggest new ideas and increase awareness of improvements.

Leaders must also demonstrate their own buy-in; they must “walk the talk” and plainly show how they are investing in quality efforts. There are many established methods to demonstrate corporate buy-in including industry association templates, articles on successful steps to ‘change culture’ and automated technologies that create ongoing discussions and visibility to global quality metrics. Sadly, this credibility is often lacking today, as less than half of respondents felt that their leaders lead by example or “live” the quality values.³

Certain practical incentives can further encourage achieving quality objectives and building a culture of quality. For example, in addition to standard performance reviews, the *Forbes Insights* survey identified three particularly effective incentives tied to quality metrics: personal compensation, cash bonuses and internal awards or recognition. Incentives provide a way to respect and honor employees who exemplify the company values, and to encourage and motivate others to get on board.



QUALITY IS NOT AN ACT, IT IS A HABIT.

– ARISTOTLE

Lastly, customers need to be heard. Their firsthand experiences can drive meaningful product changes as long as employees are encouraged to listen to, document and pass along customer feedback.

These wide-ranging examples of communication can be integral to continuous improvement, incremental market share, and brand affinity.

The value of widely communicating quality measures in a transparent fashion can provide tremendous benefits.⁴

THE RIGHT TOOLS FOR CORPORATE WIDE QUALITY CULTURES

Like any significant and complex project, successfully implementing a new enterprise-wide culture of quality requires the proper tools. You simply cannot manage what you do not measure. These tools must accurately monitor quality, be reliable, powerful, flexible and easy to use, and readily available to everyone in the organization.

Only by seamlessly driving quality in real-time, with integrated communication links built into virtually all aspects of the system, can today's advanced manufacturers achieve the workplace unification on crucial matters of quality management and continuous improvement.

This new vision of proactive manufacturing keeps product quality at the forefront, with production teams tracking crucial data/specs in real time on the line.

In addition, ongoing ISO changes and requirements are difficult to manage unless you have the right technology tools to aid in compliance. Many organizations continue to struggle with keeping ‘homegrown’ IT systems running that have outdated or no information to help guide them in achieve ISO demands.

With **ASI DATAMYTE** solutions of automated data collection and analysis, quality is measured, known, assured, proven, communicated and maintained as part of manufacturing. This level of real-time accuracy and notifications on the production line — and well beyond — can prevent issues upfront, without resource overhead creating and publishing manual reports. When unscheduled downtime, lengthy back-trace investigations of product issues, and other related operational inefficiencies virtually disappear, everyone takes notice.

Several tactics help to enable a workplace transformation and ensure a company-wide “buy in” supporting quality initiatives.

- **Technology and data automation:**
Data is everything. Automated data collection keeps accurate and timely data flowing from multiple sources to a common processing and aggregating depository, where it flows out again to inform and direct other multiple sources. In a nutshell, this intricate orchestration closes the quality loop (even from customer service back to design engineers, for example), links the “silos” and drives company-wide efficiencies. When specific information reaches specific audiences at a specific time, the system is humming with maximized productivity and real-time quality.
- **Sharing of “lessons learned”:**
With a formal integrated system of collaboration, issues are easily shared, analyzed and communicated, driving quality improvement across the organization.
- **Monitoring and auto-reporting for all departments:**
Throughout an organization, real-time quality monitoring and data collection opens the door for hassle-free automated quality reports and alerts. By carefully prioritizing collected data (on the basis of timing or level of severity concerning a part, production line or even an entire plant), the right people in the organization are assured of being quickly informed about certain crucial issues.
- **Detection, visibility and traceability:**
Gone is the ineffective inspection process where the quality team periodically removes, inspects and analyzes stale production samples. Instead of this sluggish procedure, highly detailed tracing of an issue back to its root cause occurs in real time, right on the production floor or at the supplier. This continuous visibility minimizes the risk of unexpected downtime and potential fallout such as reworks, scrap and more.
- **Training and acceptance:**
When manufacturing personnel are well-trained and regularly updated on how employees are informed, engaged, fully participating and confident that their efforts are worthwhile.

CASE EXAMPLE – INTEGRATED LINKS OF QUALITY (FMEA):

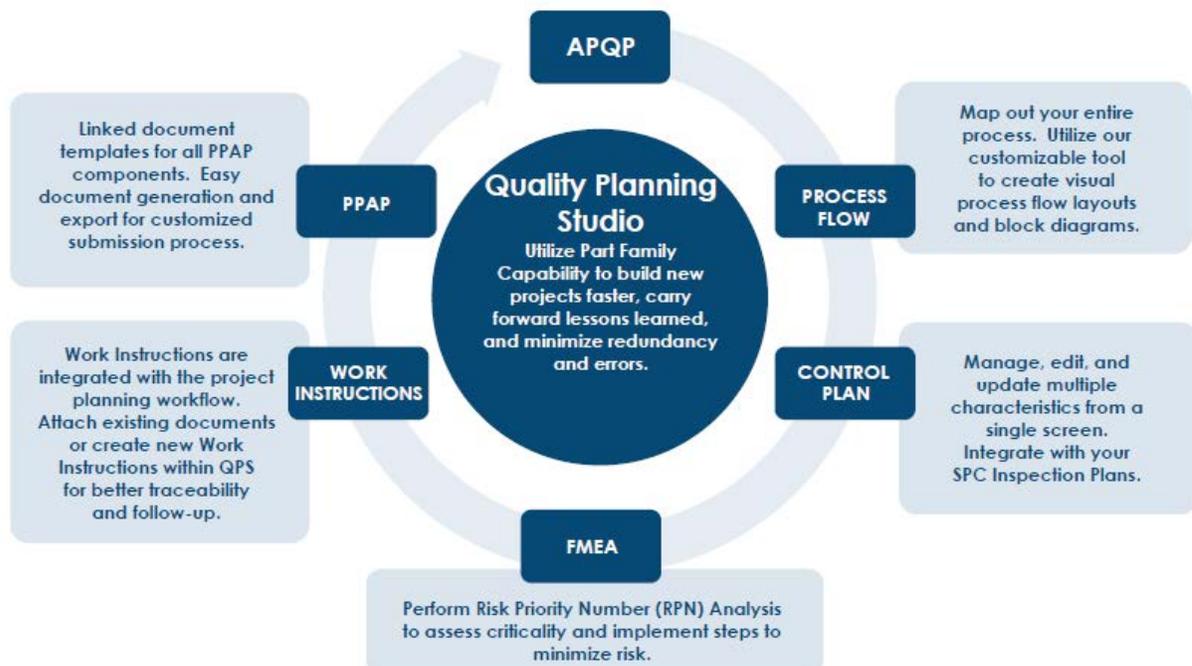
Critical to continuous improvement is ensuring that Failure Modes and Effects Analysis (FMEAs) are updated in the event of a non-conformance, cost-savings initiative or market/product change. Most organizations rely on manual human intervention to update these documents which leaves companies vulnerable to missed updates and potential miscommunication of critical information. This disconnected data is another example of how departments can remain siloed in their approach to quality and not fully accepting the scope of impact that each person's decisions or communications has on the whole quality system.

Typical automotive manufacturers and their Tier 1 and 2 suppliers manage thousands of FMEAs. Integrating communications and auto-updates pertaining to company-wide quality issues are fundamental to maintaining the safety and integrity of their products. Yet many manufacturers continue to use Excel or other disconnected systems to try to manage such a large task.

So, how do you overcome this issue and put in place a system that alleviates this concern?

The ASI DATAMYTE solution automatically integrates all core documents of the APQP process: Process Flow, Control Plan, Process FMEA (PFMEA), Work Instructions and Product Part Approval Process. When a change is made to one document, this update flows to the other formats automatically. The PFMEA helps document key production improvement measures taken to validate changes made and provide traceability to the process. This enables a smoother production process or Part Approval Process with OEMs- all while lowering costs, scrap and rework levels.

The careful handling of PFMEA is vital in identifying quality issues on the plant floor and alerting the quality team to immediately review the PFMEA for an understanding of the severity, frequency and root cause of the issue. This analysis identifies actions to resolve the issue- all while providing traceability and data integrity in the process. The result? Improved product quality and acceptance, as well as increased learning of preventative measures to avoid similar issues.



AN ORGANIZATIONAL CULTURE OF QUALITY IS ATTAINABLE

With the right quality goals, strategies, and innovative toolbox of customized hardware and software quality solutions, leading manufacturers all over the globe are indeed seeing a robust culture of quality taking hold within their walls. The cohesive and flexible ASI DATAMYTE systems enable manufacturers to *improve* quality while *streamlining* methods for better efficiency. For each manufacturer, embracing this continuous improvement in a world where new products and technologies evolve virtually by the minute provides an essential cornerstone to their enduring competitive advantage.



- 1. ILS Research, 10 Reasons Your Local Quality Management Initiatives are failing**
<http://blog.ilsresearch.com/blog/bid/191300/10-Reasons-Your-Local-Quality-Management-Initiatives-are-Failing>
- 2. Forbes Insights, Culture of Quality**
<http://www.forbes.com/forbesinsights/asq/index.html>
- 3. Bookboon, What is World Class Excellence and who has already reached it?**
<http://bookboon.com/blog/2011/10/what-is-world-class-excellence-and-who-has-already-reached-it/>
- 4. ASQ, The Pulse of Global Quality**
<http://asq.org/blog/2013/09/infographic-the-pulse-of-global-quality/>
- 5. Harvard Business Review, Creating a Culture of Quality**
<https://hbr.org/2014/04/creating-a-culture-of-quality>

ACHIEVE A CONTINUOUS CULTURE OF QUALITY – ASI DATAMYTE SOLUTION

- **Integration between processes:**

Achieving integration of processes, communication and real-time data is achieved in the integrated quality management system by ASI DATAMYTE. The bi-directional communication between Quality Planning, Statistical Process Control and Gage & Tool Management allows your organization to monitor issues, gain access to root causes quickly and drive meaningful product and process continuous improvement changes. Specific reports and alerts can be sent to key individuals ensuring they are up-to-speed on the issues and information important to them.
- **Multi-level reporting:**

Sadly, all too often we learn from today's news that detection of show-stopping original equipment manufacturers (OEM) safety concerns never reached top management. ASI DATAMYTE's solution ensures that automated custom reports reach a specified audience — such as the C-Suite, if necessary — on the basis of defined issue timing, issue type, rules of a part, production line or entire plant(s) being out-of-spec for “x” amount of occurrences. With many report options available, every manufacturer can define a custom suite of reports precisely tailored for the level of communication necessary.
- **Incoming / outgoing inspection:**

Good supplier management ensures that Production Part Approval Processes (PPAP) are completed for every part, and issues are quickly communicated with external vendors. ASI DATAMYTE's solution provides direct and reliable communication of parts data, playing a key role in efficiently assuring part accuracy and consistency over time.
- **Visibility / traceability:**

It is a fact of life that OEMs and their Tier 1 & 2 suppliers must carefully and reliably trace a quality issue back to the source and find its root cause. ASI DATAMYTE's real-time monitoring on the production floor provides unsurpassed visibility and ease of traceability in finding an internal root cause or — if the supplier is also integrated within the manufacturer's ASI system — finding an external root cause. This clarity and depth of data can indicate where an issue occurred, how many parts were affected, and at what level, whether it is isolated to a particular plant, line, operator, time, part, batch, lot, gage, or set of metrics such as heat level, thickness of weld, torque setting and more.
- **Data Collection / Reporting:**

No longer does it take 3 quality people walking the production floor to collect data, write it down, convert it to spreadsheet based reports and publishing out to teams. ASI DATAMYTE's solution automates data collection as well as position/department based reports. Removing the risk of human errors and eliminating laborious “paperwork” improves quality, productivity and significant progress in obtaining highly detailed data. Equally important, these efficiencies greatly encourage the overall quality “buy in”, particularly among those who are relieved of the onerous manual chores and now free to participate with more rewarding quality initiatives.
- **ISO Standard assistant:**

Struggling with a ‘homegrown’ IT system that has outdated or no information to help guide you in achieving ISO standards? The ASI DATAMYTE solution aids you in managing ISO requirements.