

CASE STUDY



Dana Holding Corporation Maumee, OH www.dana.com



In less than a year's time, we went from a system that took care of 40 percent of our plants to a comprehensive system that takes care of 100 percent of plants. Besides delivering a more efficient, consistent approach for managing corrective action, supplier assessment, auditing and so forth, the company as a whole spends less time and fewer resources on nonconformity issues. We've eliminated much of the redundancy.

Gregg Alling Senior Manager of Quality Systems

DANA HOLDING CORPORATION

Implementing a Global Quality System for Nonconformity in Less Than a Year

BACKGROUND

Dana Incorporated, headquartered in Maumee, Ohio, is a world leader in engineered solutions to improve the efficiency, performance and sustainability of passenger vehicles, commercial trucks and industrial and stationary equipment. Dana, which employs approximately 29,000 people in 34 countries on six continents, reported 2016 sales of over \$5.8 billion.

Automotive manufacturers and suppliers are subject to rigorous standards addressing safety, reliability and durability, the environment and manufacturing. Quality management standards specify the need to develop and implement a quality management system that focuses on continual improvement as well as preventing defects, variation and waste. As a major supplier of automotive and vehicular components, Dana must adhere to these requirements internally as well as enforce these standards with its external supplier base of several thousand suppliers worldwide.

THE CHALLENGES

Dana employed a decentralized approach to quality management with its external supplier base. Individual business units worldwide had developed and implemented their own quality systems over time, based on either their specific customer requirements or the quality standards they were pursuing. Everyone used different systems for nonconformities, imposed varying requirements and maintained separate data.

About 40 percent of the corporation relied on an automated solution that was 20+ years old and unsupported. The other 40 to 60 percent employed simple Excel spreadsheets, Word files attached to emails, and other online and offline systems. Data was both electronically generated and manually computed and input, opening the door to errors. Redundancy was a major problem, as were the wasted resources associated with each facility developing and operating its own system.

Because no interoperability existed between systems, there was no global data and no global visibility of suppliers. A single supplier working with three different plants – a common situation – could be defined in three different ways. It was difficult, if not impossible, to share suppliers' performance-related information throughout the company or address shortcomings in a meaningful way. Different criteria, corrective action formats and problem-solving methodologies were frustrating and time consuming for external suppliers.

In addition, the aging technology employed by two of four business units for nonconformity issues would be totally incompatible with newer Internet browsers in 2016. Dana's Global Quality Systems team knew that timely action was required.

THE SOLUTION

In 2012, Dana's Purchasing Department had acquired LiveSource's comprehensive suite of tools for supply chain management. The suite included a Supplier Quality module, which delivers the transparency needed to implement corrective strategies globally.

Dana began discussions with LiveSource to develop a common corrective action tool for nonconformity that could be used by all Dana business units for all suppliers. LiveSource committed to develop an 8D solution for its charter customers, including Dana, and make it available to all, but highly configurable, so each customer could design its own templates and workflows.



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If there is a change in requirements or a need to update how we deal with our external supply base, we can make the change right away. Everyone receives the update at the same time. There's no slow rollout or inconsistencies for extended periods of time. It is much more efficient.

Gregg Alling Senior Manager of Quality Systems Because Purchasing had previously created supplier master profiles, it facilitated the accelerated implementation timeline. Gregg Alling, Senior Manager of Quality Systems, relates, "With LiveSource's help, we designed the workflow, the process and how we wanted the system to function. We did trials with some of our plants and got everything finalized internally. The development phase took less than a year."

"All in all the implementation went as smoothly as an effort on this scale could go," related Alling. "Remember, we were concurrently changing all of the systems that thousands of external suppliers used as well as the way 100 Dana plants generated corrective action requests. LiveSource was excellent to work with: cooperative, collaborative, capable and responsive. The system's flexibility was impressive, allowing us to configure things the way we wanted them to work."

THE RESULTS

"In less than a year's time, we went from a system that took care of 40 percent of our plants to a comprehensive system that takes care of 100 percent of plants. Besides delivering a more efficient, consistent approach for managing corrective action, supplier assessment and auditing, the company as a whole spends less time and fewer resources on nonconformity issues. We've eliminated much of the redundancy."

Underlying Dana's LiveSource system, regardless of module employed, is a centralized master data structure. Every supplier-related input relates back to a single master profile that identifies a specific address, code, key contact people and other important data elements, giving Dana the global visibility it sought. "We can see all the supplier quality issues that are happening anywhere in the world," explains Alling. "And, we can look at a particular supplier and see all the different quality issues it might have at different plants. LiveSource gives us the ability to look at the big picture. We can see a supplier's certifications, audit results, scores, evaluations and rejections in one system with a few clicks."

Dana is currently transitioning its quality system requirements for the new version of ISO 9001 and the new IATF 16949 quality standards. "Having the LiveSource system with all of its capabilities is helping a lot," says Alling. "It delivers so much more beyond the nonconformance piece."

Dana is benefiting from LiveSource's ability to integrate easily with other backend systems. Alling explains, "LiveSource uses a clean data structure that allows them to access fields easily and send the associated data wherever it is needed. So, when our supplier development group wanted to connect the LiveSource corrective action system and an internal supplier rating system, it was easily done within six months of requirements definition. Defect data are pulled directly from the supplier corrective action documents to calculate parts per million, eliminating this component of manual data entry globally."

Alling characterizes LiveSource's customer support and service as very good. "They have regional reps who are available in all the time zones and regions we're in. Our plants can contact them whenever they have a question or issue. And, LiveSource is more than willing to work with our external suppliers. They offer published training materials and conduct online sessions. They monitor problems and usage and follow up on a regular basis. They function more like a partner than a vendor. "

"Our nonconformity system is just the start of our quality-related efforts with LiveSource," says Alling. "We are currently developing our online supplier PPAP solution and that process is moving along well. We hope to have it tested and ready to begin deployment to our external supply base by the end of 2017. Soon after, we'll develop our APQP system for online advanced product quality planning."

The future looks bright for quality management at Dana Incorporated with LiveSource's Supplier Quality module.