

Harnessing the Power of an Integrated QHSE

Enterprises looking to build a culture of safety and quality excellence have no choice but to embrace automation and digital transformation. But, there's one more factor that is essential to spread this culture across the organization. That factor is organizational mindset.

At the end of the day, it is not about processes or automation. While technology can drive efficiency, real cultural change happens because of people. Continuous improvement, real-time analysis of key quality and safety events, combined with the right organizational culture, lie at the heart of a safety and quality-first company.

In this whitepaper, we focus on how enterprises can drive this culture by harnessing the power of an integrated Quality, Health, Safety, and Environment (QHSE) system.



Introduction

At ComplianceQuest, we've served our enterprise customers across a range of sectors – from manufacturing and life sciences to automotive, aerospace, and hi-tech – with automating their EQMS process.

Our product that is natively built on the Salesforce.com platform makes it extremely easy to drive a data-centric culture to embrace quality excellence. With a highly flexible, scalable, integrated, and collaborative platform, our EQMS made it easy for quality leaders to look at data across customer, internal and supplier dashboards and make quality-related decisions with data at the core.

Additionally, the system drives continuous improvement of quality processes, making it simple to upgrade both technology and workflows.

Thanks to conversations and discussions with numerous leaders across the world, we realized that there was a crying need for an EHS (Environment, Health, Safety) system that was also built on the 'Real Cloud.' Adding safety (and health and environment) related solutions would make a quality system genuinely complete. We realized that pursuing a mission of quality excellence alone wasn't enough. **To truly complete the process, an enterprise had to embrace a continuously improving mindset towards both quality AND safety.**

Earlier this year, we acquired LifeGuard Solutions, a comprehensive Environment, Health & Safety Management (EHS) Solution that is also built natively on the Salesforce platform, just like our EQMS solution.

LifeGuard's product includes the following solutions:

- Environmental
- Health and Safety
- Risk Management
- Supplier and Contractor
- Sustainability
- Training compliance

With LifeGuard on board, we're now building a truly integrated QHSE that'll empower business leaders across sectors to take advantage of a combined technology solution.

In this whitepaper, we focus on seven distinct advantages of implementing a unified system for quality and safety.

But, first, a glance at several safety-related mishaps from around the world. These events have happened across decades and industries, highlighting the failure of an organization's safety system. It emphasizes on the need for not choosing between quality or safety but pursuing both. **It also throws light on the significant damage caused by a safety mishap, even in organizations that are well-known for their quality management standards.**

Pinto Design Flaw

In 1978, Ford recalled 1.4 million units of its 1971 model Pinto, priced at just \$2,000. It was found to have a structural design fault where the fuel tank was found to be close to the rear bumper and rear axle. In case of a rear-end collision, it would elevate the risk of fires. Ford had been aware of this design flaw during production. Still, following a cost-benefit analysis of repairs to the cost of settlements for injuries and burnouts, it had decided not to modify the design. In the final analysis, Pinto was found to be safer than cars in the same class. The cost-benefit analysis reflected a callous corporate culture where safety and risk were relegated to a secondary place.

Challenger Space Shuttle Explosion

The NASA Shuttle Challenger explosion minutes after take-off on January 28, 1986, left seven astronauts dead on board. The cause was traced to hardware failure of a solid rocket booster (SRB) 'O' ring. Investigations revealed that NASA had been warned of the potentially adverse effects of very low temperatures on the 'O' ring's performance a day before the launch. The engineers too recommended delaying the launch till air temperatures touched 53 deg. F but were ignored. In a way, safety was sacrificed to protect cost and schedule.

Toyota Safety Defects

In 2000, 6,200 complaints were filed regarding unintended acceleration in Toyota's Prius model of cars. According to data from public filings, this safety issue had caused 89 deaths and 52 injuries. Finally, in 2014, Toyota was fined \$1.2 billion for hiding safety defects.

BP Deepwater Horizon Explosion and Oil Spill

On April 20, 2010, BP's Deepwater Horizon rig exploded and killed 11 onboard workers. Four million barrels of oil were released into the Gulf of Mexico and took three months to seal on July 15, 2010. Eight cases of quality management failure were identified as the cause of this disaster, which had an overarching impact, killing people and harming the environment.

The Recent Oil Spill in Russia

A decade later, now (in 2020), we still hear of tragic accidents. In the Arctic Circle in northern Russia, an oil spill of 20,000 tons from a power plant that is the largest producer of palladium has been reported. The president of the country heard of it through social media two days later. This is a significant breakdown of not only the safety systems but also communication and reporting.

In Pursuit of Safety and Quality Excellence

A recent article in EHS Today discusses a few [key points](#) that emerge when analyzing the cases mentioned above:

- Safety management is isolated from other business functions and entrusted to a 'specialist.' **It is impossible to deal with safety or quality in a silo. It should become part and parcel of how you do business.** Safety and quality must fit seamlessly into the entire workflow and lifecycle of your enterprise's business process. It is an integrated process that must exist across all stages, from suppliers to the end-consumer.
- In some organizations, though safety measures may be implemented, **lack of meaningful metrics or lack of an overarching safety strategy** can cause it to fail.
- Organizations also realize that safety management needs to be part of the corporate culture and not merely a set of rules to be followed. It is not about meeting regulations alone. **It is about taking a proactive approach** to assessing, analyzing, identifying, and acting in all areas related to risk and safety.
- Training and orienting employees towards safety practices and continuously reskilling them is extremely important.

All four challenges mentioned above can be overcome by implementing a safety culture that is integrated tightly with your organization's quality process.

A cloud-based solution like ComplianceQuest, built on the Salesforce.com platform, gives businesses insights into the root cause of deviations, helps institute corrective and preventive actions, conducts data-driven audits, manages a robust supplier management process and drives collaboration among diverse teams.

Many of these functions are common to safety, but many times, the debate disintegrates into which should come first – quality or safety. A siloed approach follows, or an attempt at integrating the two becomes difficult due to the mindset that one should take precedence over the other.

This **siloed** approach leads to:

- Two disparate systems, not integrated in terms of data
- Employees requiring training in multiple systems and entering data multiple times
- Absence of an integrated system makes collaboration among diverse teams more difficult
- The process of maintaining and upgrading the two systems are not in sync
- It also makes it difficult to embrace data-driven decision-making and risk management

At ComplianceQuest, we believe Quality, Health, Environment, and Safety management must be unified into a single holistic, flexible and scalable platform.



7 Reasons Why a Unified Quality & Safety System is Needed

First, let's spend a minute to understand the specific functions of both these systems. A quality management system is primarily focused on regulatory compliance and quality metrics from a customer, supplier and business standpoint. Safety management, on the other hand, is focused on risk and identifying weaknesses in the system that can increase an organization's exposure to risk.

Quality Management is a data-driven process, often predictive, while Safety Assurance is proactive. Additionally, both Quality and Safety systems depend on the analysis and monitoring of organizational processes and procedures.

Both systems must have the following features: building on strengths through the adoption of cloud-based technology related QMS services.

- Connectivity across supplier, internal, logistics and customer dashboards
- Data at the core
- Act as an enabler for continuous improvement
- Customizable workflows, as per industry or regulatory norms
- Scalability and flexibility
- Easy to integrate with external ERP & CRM systems

In this paper, we highlight a few reasons why enterprises – especially those in high-risk sectors – must harness the power of an integrated QHSE.



Advantage #1: Data Visibility drives Efficiency

When the two systems are integrated, you get a single source of trusted data.

This, first and foremost, prevents:

- Duplication of effort
- Poor visibility regarding challenges
- Determining resolution strategies

It also helps with

- Verifying effectiveness of corrective and preventive actions
- Easy collaboration amongst relevant stakeholders
- Seamless flow of data across the organization

A QHSE platform like the one from ComplianceQuest spans the entire organization, linking assets and helping to find unified solutions that give equal weightage to quality and safety. ComplianceQuest's Risk and Change Management modules are geared up to drive further efficiencies in the process of risk mitigation.

Embedded core CAPA capability enables triggering actions from core processes and establishing automatic relationships with other entities such as updating Failure Mode and Effects Analysis (FMEA), complaint handling, supplier management, and so on.

Advantage #2: Seamless Business Process across all four areas

By merging the Quality and EHS systems, businesses can streamline operations as well as maximize return on investment. Managing one holistic system provides companies with deeper insights into specialized functions and cross-functional views across quality, health, safety, and environment.

A single QHSE platform helps streamline the following processes:

- **Audits and Surveys:** Auditing, supplier surveys, and customer satisfaction efforts in both systems can be automated in a single system

- **Corrective and Preventive Action:** Tracking discrepancies become more efficient with a unified system. It makes it easier to pull up relevant data from incidents and audits and take action accordingly. It makes it easier to act, whether it's putting in risk control measures or kickstarting a change management program.
- **Risk Assessment:** A QHSE system gives insights into potential risks at various points of a process while also being able to classify risk mitigation and event history. By Integrating with CAPA, non-critical events can be differentiated from critical events, thereby helping businesses prioritize safety threats and act accordingly.
- **Unified Document Control:** It ensures proper documentation at all times by integrating with QMS functions such as complaint handling and material returns, in addition to HSE functions like material safety data sheet (MSDS) and emergency preparedness documentation.
- **Employee Training:** As mentioned earlier in the whitepaper, the organizational mindset is at the core of quality and safety-first culture. This mindset is shaped by regular training sessions, comprising both skill-based and culture-based learning.
- **Change Management:** Change management is an essential part of fixing workflows and managing risk. A unified system makes the process of implementing change, more robust.
- **Incident Management:** Not all events are solely safety related, and often have a quality element in the failure. Recording of incidents and relevant data automatically being inherited into the corrective action process enables the prevention of such events in the future. It also makes it easier to conduct investigations, analyzing future risks, and preventing their recurrence.
- **Analytics and Dashboards:** Business intelligence and reporting functions can help organizations leverage trends and data points. A next-generation quality management process can result in predictive insights to drive quality in tandem with a safety management system, enabling a proactive approach to safety and, importantly, prevention of costly disasters.

Advantage #3: Easy setup for multiple standards like ISO 9001, ISO 45001, OHSAS 18001

Standards such as ISO 9001, ISO 45001, OHSAS 18001 can be integrated into one unified QHSE system. Broadly, compliance with these frameworks requires a data-driven approach to monitoring workflows and business processes across the enterprise lifecycle.

A unified system must adhere to the following approaches to deliver value on both fronts:

- Clearly defining the scope and expected impact of both safety and quality processes.
- Make a master list of all quality, health, safety, and environment parameters to be measured with data.
- Alignment of accountability and responsibilities – from a safety and quality perspective – across the organization.
- Clarity of workflows and business processes for required and adopted standards.
- Data visibility across relevant stakeholders, as per the nature of data.
- A definite risk management strategy and execution plan must be assessed, based on past events, current operations and future operational changes and industry information.
- Needless to add, collaboration and communication amongst team members are essential for continuous improvement of all vital safety and quality processes.

Successful implementation of the two management systems requires the allocation of sufficient resources as well as assigning roles, responsibilities, and accountabilities. At this stage, training needs must be identified, scheduled, and training records managed.

Additionally, AS 4801 requires measurement, monitoring, and evaluation of hazards and health surveillance for safety. For quality management, the focus is on monitoring processes and the product. Both require CAPA, document management, incident reporting, and the other features discussed in the previous section.

Management review and involvement in ISO 9001 and AS4801 are essential at all stages of implementation, evaluation, and revision.

Looking to upgrade your safety and quality workflows for 'The New Normal'?

An integrated QHSE from ComplianceQuest can help.

[Click here to know more.](#)

Advantage #4: Predictive Insights & Proactive Solutions from Dashboards

Having a single source of data integrated with CAPA and Root Cause Analysis helps businesses with capturing trends, identifying for persistent or concerning problems, and predicting potential future events.

This can help devise a master data plan for proactive, insight-driven decision making to prevent safety and quality incidents. By establishing consistent communication and processes across functions and stakeholders, people, process, and technology can work together for continuous improvement and mitigate events that can jeopardize safety and quality.

As it is often repeated, a mishap, hazard or accident happens because the enterprise did not have a prevention mechanism or a quick corrective action that was able to deal with the failure. **It requires a proactive approach, wherein leaders are constantly looking at data, people and processes to spot risks and risky behaviour.** When a process improvement happens for the sake of costs, so to speak, effective change and safety risk management must be part of the process., not an after-thought.

On the quality front, at ComplianceQuest, we leverage advanced technologies such as Natural Language Processing, Machine Learning, and AI capabilities to enable **predictive safety and quality** to provide leaders the ability to make **data-driven decisions**.

Here, we list a few capabilities of the ComplianceQuest product to give you a glimpse of the product's predictive intelligence.

- **Issue Triage:** Identify the next best action/recommendation
- **Create wizard-based helpers:** Triage, Investigation, Root Cause Analysis, etc.
- **Enable process automation based on prescribed rules:** Trending and Statistical Thresholds, Nonconformance Trends
- **Use NLP and AI** for Complaints Triage & Risk Predictions
- **Provide dashboards for several roles:** Unlimited access, Role Specific, Departmental, Site, Regional and Corporate level (Quality, Complaints, and Supplier)
- **Data-Driven Reports:** Built-in Reporting Engine, Simple to Create, and Use. Can integrate with third-party data analytics tools such as Qlik, Tableau, Micro strategy, Power BI, etc. through Native Salesforce Data Adapter
- **Risk Data Dashboards:** Based on past events and risk management leader's recommendations, enterprises can pull up key data and metrics to spot upcoming safety risks

Advantage #5: Aligning people and processes

Organizations need a sound Safety Management practice since [studies](#) show the following:

- A significant relationship between safety system practices and accident rates
- It can help predict worker engagement levels
- This, in turn, has an impact on accident rates
- The higher the engagement level, the better the safety and as well as performance outcomes
- To reduce accidents, safety systems must be built for employee engagement, collaboration, training, and upskilling

By implementing an integrated QHSE system, you enable employees to align with business goals while simultaneously providing them with a safe work environment. It also streamlines processes and improves compliance.

- With access to a robust and transparent event/hazard reporting system, the company fosters a safety culture and improved dialogue. Through periodic training, the employees are better equipped to understand how they are valued and how they can contribute to the organization's growth.
- By providing a clear structure for authority and responsibility, you empower them to discharge their duties conscientiously and safely.
- By setting objectives and metrics, you enable them to evaluate and assess their own performance.
- Through document management, employees always have the appropriate reference information and can become more effective and productive.

Such a workforce that feels valued and trusted has better morale, which automatically boosts performance. Retention is higher, and inducting newcomers into this culture of safety and quality becomes easier too.

Advantage #6: ROI from a cloud-based QHSE

Two aspects come into play when we analyze pricing and return on investment. One, of course, is the cost of automating and digitally transforming your quality and safety processes. It is a no-brainer to adopt a single, unified system simply because it is better in terms of process and operations. The cost of technology does come down.

But the real reason why your enterprise must adopt an integrated QHSE is that it pays for itself. It reduces the risk of penalties and the likelihood of mishaps, not to mention the high cost (financial and brand reputation) of failure of compliance or safety.

There are several advantages of going with a cloud-based QHSE like ComplianceQuest. As a next-generation product, we're built from the ground up for the cloud, making the platform flexible and scalable.

Here, we highlight a few advantages of going to a cloud-based QHSE built on the Salesforce platform.

- **Advantage SaaS Business Model:** A large percentage of our current clients have moved

from an on-premise EQMS or EHS to a real cloud-based product like ours. From an ROI standpoint, the pay-per-user, per-month business model ensures scalability, flexibility, and ease of buy-in from top management.

- **Data on the Move:** For a quality and safety system to be effective, users must have access to next-generation features. Dashboards, mobile-based access to critical quality and safety data, quality analytics, safety management processes, security features are all key factors even from an ROI perspective. The notional cost of not enabling your users and quality and safety leaders with data on the move can be massive.
- **Quality & Safety Insights:** As cloud-based QHSE systems evolve, we're going to see more "suggestions" and "insights based on quality analytics," possibly some of these driven by AI. As a safety and quality leader having anytime, anywhere, access to critical safety, quality and compliance insights can be a game-changer. This coupled with a custom safety dashboard can be a game changer to your organizational culture.
- **Costs in proportion to the scale of your business:** Last but not least, the most important ROI factor is this and this is true for most SaaS companies. Your cost scales as your organization scales. When your user base is small, and the number of modules you need is lesser, you simply pay a lower amount every month.

Advantage #7: Catastrophic Effects of Managing Risk across Two Systems

When an enterprise fails to build a culture around safety and quality, shortcuts and unsafe practices creep into the system and can remain undetected. **The cost of not managing safety risk is often understood only in hindsight.**

A unified QHSE can lay the foundation to drive digital transformation, wherein quality and safety are given the same importance at the C-suite and board level.

There are several stories of how a lack of focus on mitigating safety risks has led to significant challenges for organizations. In addition to direct damage to people affected by a mishap, any accident also has an impact on production, the cost of production, employee

productivity as well as the reputation of the business. Then there are other costs incurred for emergency response, medical care, loss of productivity, insurance premiums, possible penalties to be paid to regulatory agencies, and litigations. **On the other hand, putting safety ahead of quality can also lead to stagnation and be detrimental to growth.**

The trick is to find the right balance, drive quality excellence, embrace a safety culture, while simultaneously pursuing growth and managing risk.

An Integrated QHSE

Enterprises across sectors, including ones in life sciences, manufacturing, transportation, automotive, hi-tech, chemical, mining, and agricultural products, are looking to automate critical quality and safety processes.

At ComplianceQuest, we have had tremendous experience in the area of quality and compliance. We've led the digital transformation and automation of quality processes for customers in 800+ locations worldwide.

Now with the LifeGuard Solutions acquisition, we're placed to serve our customers in both areas – EQMS and EHS.

LifeGuard Solutions was founded in 2015 with a clear mission to not only help enterprises meet health and safety regulations but also bring in a safety and health-first approach to employees, the environment, and the communities being impacted by a company.

Having been built on the Salesforce.com platform, the product is flexible and scalable from the get-go. Digitization of information was one of the significant challenges faced by leaders who wanted to bring in automation and digital transformation to health and safety processes.

ComplianceQuest decided to acquire the company with the vision of offering an integrated platform that could combine the value of both a world-class EHS and EQMS into a single environment and to fully support industry to implement and mature their Safety Management Systems.

Additionally, the LifeGuard acquisition also gives us the

ability to serve a new set of industries, including Agriculture, Farms, Energy, Utilities, Retail, Chemicals, and Construction.

The current difficult situation caused by the pandemic is forcing enterprises to look at new processes and workflows related to health, safety, and the environment. To implement these processes well, automation and digital transformation are crucial.

As we wrap up this paper, we highlight the key advantages of offering a holistic and integrated approach to combining EHS and EQMS processes:

- Robust Document Management is key to any organization. A next-generation document management system is critical to ensure your health and safety documents are up to date, organized, and easily accessible.
- Automating your inspection, CAPA, equipment management, and audit management process will

make the job of health and safety leaders a lot easier. Periodic audits, preventive maintenance of equipment, frequent inspections, and a data-driven approach to safety can be a game-changer.

- An EHS system has two primary goals. One is obviously to meet all regulatory obligations. But, the second one is to drive a culture of safety across an organization. As we wrote in one of our [blogs](#), **Safety is not expensive, its priceless.**

Our vision is reasonably straightforward. We want to enable our customers to build a culture of both quality and safety, by embracing digitization and automation of processes.

While we're at it, it certainly helps to have a data-driven approach to health, safety, environment, and quality. Both ComplianceQuest and LifeGuard have been built from the ground up on the Salesforce platform, making it exceptionally easy to integrate and deliver value in a holistic fashion.

Does your enterprise embrace a safety-first culture? What about pursuing quality excellence as well?

An integrated QHSE platform can play a critical role in shaping the quality and safety culture of your company.

Give us a shout for a demo.



About ComplianceQuest

ComplianceQuest, an innovative 100% cloud-based Enterprise Quality Management System solution company, provides an enterprise grade solution platform that streamlines quality, compliance, content and collaboration management initiatives and strategies across your enterprise and globally based supply chain networks. ComplianceQuest helps accelerate manufacturers and distributors to accomplishing their most challenging quality, compliance and supplier management goals.

For more information, or to request a demo with a ComplianceQuest expert, contact ComplianceQuest today.

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