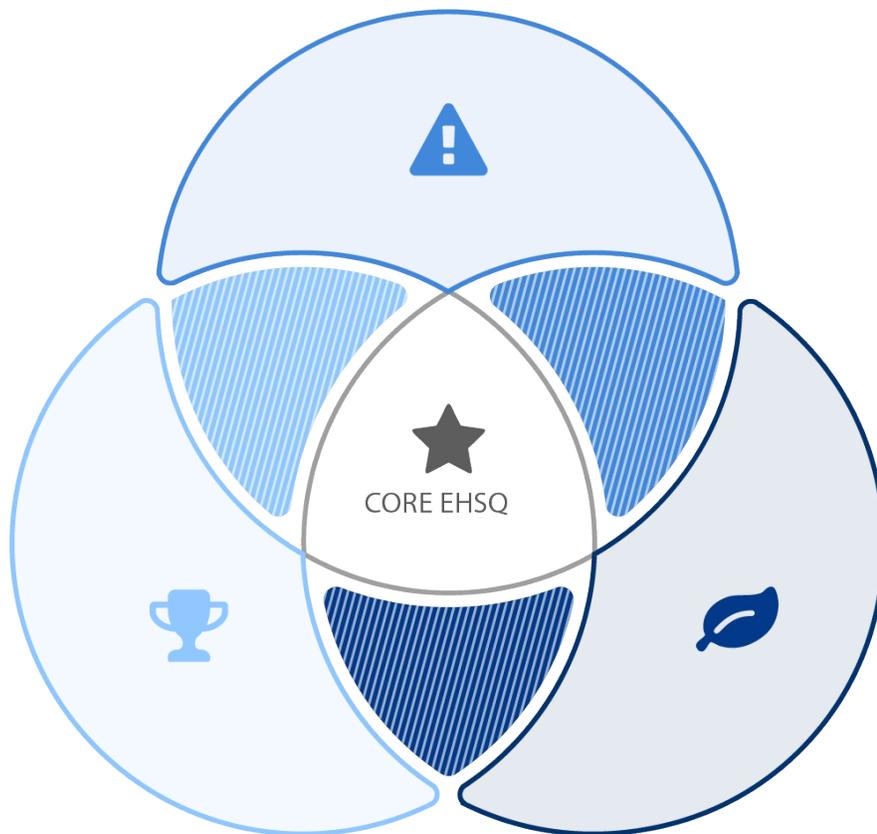


THE UPSIDE TO AN INTEGRATED EHSQ MANAGEMENT SYSTEM

ENVIRONMENTAL, HEALTH & SAFETY, AND QUALITY



ENTERPRISE
QUALITY MANAGEMENT
SOFTWARE

THE UPSIDE TO AN INTEGRATED EHSQ MANAGEMENT SYSTEM

Market dominating brands such as Coca-Cola, Toyota and SC Johnson have common traits beyond longevity and success. These and many other leading brands have approached compliance and management systems in an integrated way, specifically in their approach to Environmental, Health & Safety and Quality (EHSQ). Commitment to these disciplines is demonstrated by:

- 1) using third-party assessment of corporate systems (like ISO certification),
- 2) structuring the organization's approach and leadership in an integrated way, and
- 3) providing the best tools and reporting to support the pillars of operational excellence.

Poor quality management can undermine business objectives and result in costly recalls. Hazards and risks can result in damage and injury. New or updated standards and regulations are devised to help prevent those from happening. Most organizations maintain systems for environment, health and safety, and quality management. Unfortunately, a vast majority of organizations maintain those systems in compartmentalized data silos acting as barriers for effective collaboration.

To compete and sustain businesses successfully, organizations must do more than just manage complex systems; they must also establish sufficient differentiation between their products and those of their competitors. Organizations that excel across all sectors - EHSQ, compliance and product excellence - have invested in integrating systems into a harmonious, integrated EHSQ management system.

ISO'S ANNEX SL AND INTEGRATED MANAGEMENT SYSTEMS (IMS)

The International Organization for Standardization (ISO) introduced Annex SL in 2015 specifically to address the reality that there was no single, overarching framework that coordinated common aspects of management systems. Over time, conformance with international standards had become somewhat burdensome. The evolving landscape of new

requirements (environmental, quality, etc.) had unnecessarily ignored some obvious efficiencies and commonality. ISO now recognizes common elements and processes. The appeal of integrating management systems applied immediately to the most popular and widely adopted standards globally (ISO 9001, ISO 14001 and ISO 45001, formerly OHSAS 18001). ISO developed Annex SL to provide a high-level structure that introduces identical core text, common terms and coordinated definitions that straddle all management systems standards. Annex's ten "high-level clauses" provide an architecture that encompasses all aspects of corporate activities, from understanding the organization to continual process improvement. With this guidance in place, the common components are easily understood and the complex nature of conforming to multiple standards in an integrated way is clearer and potentially more efficient.

Fortunately, advanced technology wrapped up in a well-designed IMS is available to coordinate processes and systems into a whole system of control. It demonstrates conformance with standards, regardless of the size of the organization, while providing a business system to improve performance with unprecedented visibility.

LOOKING BEYOND COMPLIANCE

Organizations that successfully rise to the challenges presented by today's global markets do more than just conform with standards and comply with regulations. They are also:

Agile - These enterprises continuously adapt to evolving demands, generating innovations that move new or improved products to market faster than ever before.

Technically Sophisticated - These organizations haven't hesitated to adopt technology to streamline and harmonize processes to further their tactical performance and long-term objectives.

Integrated - These organization have an integrated approach to EHSQ which incorporates and shares data with their previously siloed management systems. Technical tools allow them to maintain tight control over operations in which they manage risks and harmonize processes.

Organizations which look beyond compliance create a holistic mechanism with collaboration and awareness built in and where differences are identified, respected and accommodated.

BEST PRACTICE: ELIMINATING SILOS WITH TECHNOLOGY

The acceptance of Annex SL and changes in the updated standards for EHSQ demonstrate why the elimination of silos is considered critical to corporate success.

SILOS CREATE RISK

The majority of organizations manage EHSQ departments as independent entities. When problems arise in one department, it has the potential to affect others sending them scrambling to respond. Or worse yet, still seeing the issue in isolation and entirely independent of the department that was first affected. This typically compounds the problem and can result in different root causes being identified (if they are identified at all) especially if there was no effective communication between them in the first place.

Siloed operations increase risks especially when corporate groups operate in more than one discipline. For example, the health and safety discipline pursues mandates specific to those requirements; implementing practices, data collection and reporting activities focused solely on H&S concerns. The quality division, on the other hand, may not be as focused on employee or consumer safety concerns as it is on ensuring that it uses the highest quality materials and manufacturing best practices for each product. Consequently, each separate discipline manages risks within its own sphere only, using its own language and practices to meet its own conformance to standards or compliance to regulations. This risk assessment activity is conducted in isolation where the risks are not rolled up in an overall assessment or heat map. This leads to wasted effort and roadblocks to creating one cohesive, reliable view of performance.

In a non-integrated approach, if the materials, methods or behaviors employed pose a health or safety hazard to either workers or customers or if the practices elevate environmental resource concerns, then the actions of the quality division potentially erode the activities of the E, H&S disciplines. A lack of communication creates additional risk factors which, in turn, generate extra costs in the form of mitigation and remediation expenses as well as the potential for significant brand and reputational damage.

SILOS DUPLICATE EFFORT AND COST

Regardless of the aspect of production managed in any one segment of the organization, all disciplines follow some similar practices and unified processes (e.g. purchasing, invoicing, deliveries). EHSQ, like the rest of the business, has multiple similar core processes. When EHSQ core processes including:

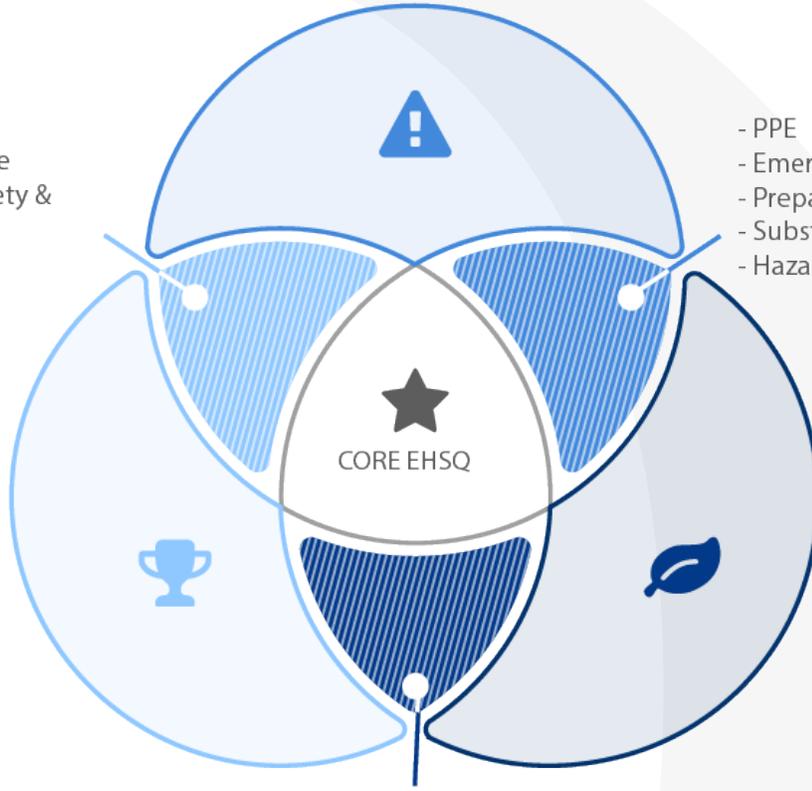
- Document Management
- Training & Competence
- Incidents / Events
- Audit & Assessment Management
- Corrective Actions
- Regulatory Reporting
- Supplier Management

are not integrated, opportunities are overlooked and efficiencies ignored. The core processes generate multiple versions of overlapping data and typically have their own uniquely built and maintained integrations for common data sources such as user credentials, employee data, supplier and product information. Self-imposed communication barriers between the divisions impair visibility preventing a holistic view. Keeping common practices separated in siloed departments results in duplicated effort, cost and expense.

SILOS ARE BLIND TO OPPORTUNITY

Hiding valuable intelligence out of view of the rest of the enterprise represents a lost opportunity to maximize corporate benefit and improvement. If data sources do not connect to each other or reside in the same solution, the organization loses the opportunity to explore the combined possibilities, share best practices and ultimately contribute effectively to over-arching goals relating to operational excellence.

- Maintenance
- Product Safety & Recalls



- PPE
- Emergency
- Preparedness
- Substances (MSDS)
- Hazardous Waste

- Equipment
- Calibration



★ CORE EHSQ

- Risk
- Documents
- Training
- Audits

- Incidents / Events / Complaints
- NC-CAPA
- Suppliers
- Regulatory Reporting

- Visualization
- Reporting
- Analysis
- Metrics

 QUALITY

- Traceability
- FMEA
- SPC
- Specifications
- Customer Satisfaction
- Advanced Product Quality Planning
- Inspections
- Dispositions
- Warranty & Recall

 OH&S

- Ergonomics
- Health Monitoring
- Industrial Hygiene
- Safety Regulations

 ENVIRONMENTAL

- Environmental Regs, Permits
- Emissions & Consumption (Air, Waste, Water)

 Organization, Governance, Objectives, People, Products, Compliance

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INTEGRATED SYSTEMS ELIMINATE LEGACY PROBLEMS

There are many ways that today's EHSQ integrated solutions change the way organizations do business.

LEVERAGE COMMON PROCESSES

Today's reality is that all enterprise departments are interrelated and each plays a separate but integral role in the success of the corporation. Product quality and performance is also judged by the related environmental impact, for example, the safety of personnel - both workers and customers - is a critical aspect of both product and corporate success. It is becoming increasingly critical for all aspects of the organization, from the C-Suite to the furthest element of the supply chain, to coordinate information and activities in conformance with the actions and objectives of the other elements of the corporation.

COORDINATING THE WHOLE BY RESPECTING THE UNIQUE

Eliminating silos and seeking harmony across the enterprise does NOT mean losing the distinctions that generate value for the organization, nor does it mean ignoring distinct differences. An example of control and freedom within a discipline is the management of incidents for EH&S. An incident remains one event but branches where it should (e.g. investigation and follow-up) with restrictions to protect information of a sensitive or regulatory nature. Integration entails finding commonality and, at the same time, meeting the needs of the professionals responsible for managing their segments of the process.

Managing risk is a cross-discipline example where terminology varies by division. The environmental division has a language it uses to identify how those concerns affect the organization. Environmental "aspects" have associated "impacts" on how the enterprise does business sustainably and environmentally. At the same time, the health and safety department talks of "hazards" and "risks," while the quality unit focuses on "conformance" and "opportunities" in the context of risk. All disciplines must also meet regulatory requirements whether state, regional or international. The overarching driver linking them together is the question: how does our approach protect and/or benefit our organization and our customers? A well-designed IMS will answer this question a little differently for each division while informing the entire enterprise how each contributes to its greater success. The IMS also ensures a clear picture of identified risks, controls and tolerance and is available in real time.

FACILITATING OPERATIONAL EXCELLENCE

By integrating all corporate activities into a single IMS, the organization also gains the opportunity to further secure a foundation for their operational excellence program.

Improved Performance

Performance is defined by department and by the activities of the enterprise. Informed by the requirements of the rest of the organization, each sector can tailor its operations to accommodate those needs while reducing inadvertent exposure to risks and eliminating unnecessary, duplicate costs. The improved performance of each corporate division leads to improved performance of the organization. Integrating EHS&Q brings together three of the pillars of operational excellence strengthening the foundation and streamlining effort.

Cost Savings

Data shared across the enterprise can reveal where operations are more productive and support decisions with facts. Sharing new, innovative and best practice programs across the enterprise via the IMS is a realistic and simpler way to propagate success at a lower cost. Combining data regarding lessons learned, prevention, supplier performance and much more can lead to insights which protect and streamline activities to produce more actionable insight without additional expense. Every organization has the capacity to reduce costs simply by using their data more efficiently.

Secure Value Chain Collaboration

Supplier management has a direct impact on business performance and compliance is where it starts. Conformance to standards such as ISO 14001, 9001, 45001 (OHSAS 18001) and IATF 16949 are considered pre-requisites. For quality, additional processes exist including Advanced Product Quality Planning (APQP) and Production Part Approval Processes (PPAP) where projects, stages and specifications are in the spotlight. The value chain continues with incoming parts inspections, maintaining traceability and identifying and managing nonconformances. At the other end of the chain, there are complaints and customer satisfaction/expectations to be tracked, managed and addressed. An IMS can connect these touch points and provide one secure and streamlined solution.

Security in the context of an IMS can be complex on the face of it but the model is relatively simple. For example, suppliers are served information pertaining to them from either a portal that interacts with the IMS or a secure gateway. In between there is multi-disciplinary access controlled all the way down

to an individual field where necessary. Information is tied, statuses and interactions are tracked but nothing sensitive crosses boundaries unless this is desired and explicitly allowed.

Business Continuity

Today's consumers demand consistent quality in both products and customer service. Any interference with their experience can chill their enthusiasm and result in lost sales and a hit to market share. Issues or concerns that impact business continuity - its ability to maintain operations - can threaten an organization's place in the market by impairing its relationships with its consumers.

Disparate, non-integrated management systems are not capable of measuring customer experience for the purpose of ensuring business continuity over time. An IMS, however, can not only capture data about the interaction but also relate that information to all previously captured data to ensure every customer receives the best possible outcome, regardless of the circumstances of the organization at that moment.

THERE ISN'T A DOWNSIDE TO INTEGRATING EHSQ

Perhaps most significantly, today's IMS sets a sturdy foundation upon which to build future endeavors.

- Using metadata gleaned from across the entire organization, an IMS can deliver analytics to connect new opportunities to existing resources. The IMS can also identify gaps in resources and barriers to moving forward so removal of those impediments can happen before they slow production or harm the brand.
- Data analysis also identifies how new opportunities might impact existing production activities, allowing for better allocation of existing resources and acquisition of suppliers for new products from the best performing, fully compliant supplier community.
- The IMS can also establish the baseline controls needed to bring the new product into production at a velocity demanded by the market, including leveraging centralized EHSQ and compliance requirements.
- Integrating EHSQ provides a single, unified solution where every user across the global organization goes to extract their view, need and resource in the same way but for different processes and purposes.

THE IMS AS A BADGE OF QUALITY (AND SUSTAINABILITY)

Demonstrating compliance with all applicable rules and standards is critical for maintaining every organization's reputation and stature within its market sector, but it does not represent the fullest measure of enterprise excellence. To achieve that, today's successful businesses seek out ways to improve their entire system by considering the needs and activities of each discipline and how those interrelate to the entity as a whole. Fundamental to their success is their reliance on an IMS solution to help them maintain their EHSQ standards while they innovate the new and improved products and processes that keep them at the top of their industry.

Integrated Management Systems incorporate all aspects of the organization into a single, central and easy to use system that breaks down silos and encourages collaboration and cross-discipline understanding. Reducing risks, gaining insights and opening communications results in improved productivity, lower costs and higher returns.

Market leaders like Toyota, SC Johnson, Coca-Cola and similar market leaders offer exemplary models of how an IMS can ensure not just market stability, but also market dominance. Relying on technology to ensure the responsible manufacturing, safety and quality of its products, these organizations maintain position at the apex of their markets consistently, with no indication that this reality will change any time soon. When organizations that straddle the globe can maintain excellence with technology and leadership commitment for EHSQ, then so can any enterprise that adopts and implements an integrated approach to management systems.