

Create the Facility of Tomorrow, Today

Steps to elevate your operations
for Industry 4.0 readiness

When companies are trying to expand their footprint in the marketplace, they are also experiencing the effects of global challenges. Whether it is regulations, competitors, tariffs or the supplier network, organizations struggle to manage all these moving parts while also developing their core products and services. Although they have invested in standard IT infrastructure – such as Enterprise Resource Planning (ERP), Manufacturing Execution Systems (MES) and Customer Relationship Management (CRM) systems – there are still shortfalls in other areas of the business that are

costing the company time and money. And with the latest talks around Industry 4.0, how can companies advance to the next level of automation, data exchange and technology unless they take a hard look at their current infrastructure and begin to make changes that will better prepare them for business needs today and in the future.

Let's take a look at how companies can start to modernize current processes and systems to create the company of tomorrow, today.

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Digitalization

Setting the right foundation

At a time when organizations are trying to understand the requirements of Industry 4.0 and how to leverage advanced automation and data exchange, an estimated 79% of companies are still managing their environmental, health, safety and quality (EHSQ) processes via paper-based or spreadsheet-based documents.*

Since most organizations have poor recordkeeping controls and procedures, the company is plagued with issues such as:

- Documents that are outdated and out of compliance
- Misplaced or lost files that need to be recreated
- Securing documents from unauthorized personnel
- The high cost of storing an increasing number of documents
- Lack of version control
- Painful audits (can't find documents, no central paper trail)
- Prolonged time required to identify the root cause of an incident (reputation management, legal issues, complaints, etc.)

According to the [Industry Digital Readiness Index](#) study, 46% of employees waste significant time on paper-intensive processes and 81% expect that digitization will streamline processes and improve document workflow.

Now is the time for organizations to join the 65% of businesses beginning to digitize paper-based processes and automate workflows in a quality management system to eliminate data siloes and provide greater visibility into each step of the process.

*Driving Operational Performance with Digital Innovation, LNS Research

9.3 Hours/ Week

Average time spent per worker searching for files

\$220

Is spent reproducing a lost document



Digitalization

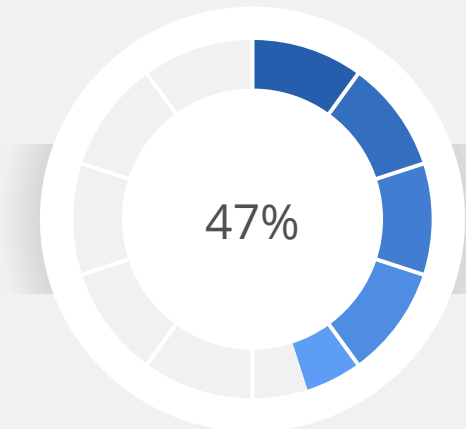
How to get started

The first step is to streamline your business and its processes with a digital transformation strategy. By taking those siloed, paper-based records and converting them to digital information, you can standardize data in a common format to enable more comprehensive data sharing. This allows companies to improve business agility for faster and more accurate business decisions.

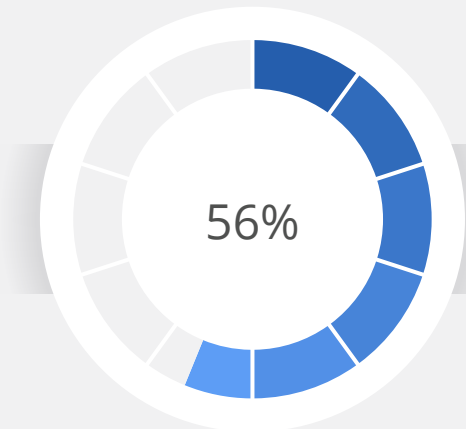
According to a PWC study*, for those companies that have invested in digital initiatives, about 75% see revenue growth as the top expected benefit, followed by 40% citing reduced costs. Returns on this investment can also yield intangible forms of growth beyond the top and bottom lines, including improved workplace safety and overall employee experience.



Gartner 2018 CIO Agenda survey findings



of CEOs are being challenged by their Board of Directors to make progress in digital business



CEOs said that their digital improvements have already improved profits

[*Global Digital Operations Study 2018.](#)
[Digital Champions. PWC](#)

Automate existing processes

Think about the manual processes already being done in your facility and where Industry 4.0 technologies – IoT, AI, robotics – will make the biggest impact on your business. It is clear that operations is the best place to start. And since a majority (79%) of companies still manage EHSQ processes via paper or spreadsheet records, now is the time to begin to identify how to take your organization to the next level of performance.



When you review EHS and Quality processes, you can see there are many shared processes, including audits, incidents/nonconformances, corrective actions and preventive actions (CAPAs) and management of change (MoC). You also realize the same employees who work on EHS incidents are also responding to quality nonconformances, so there is an overlap of functions and responsibilities.

By having one system support all EHSQ workflows, users have the convenience of one login and one standard user interface (UI) to address EHSQ issues. The system streamlines the process, ensures employee accountability, records approvals, reduces resolution timeframe and proactively manage CAPAs and MoC across the facility and the enterprise for better compliance management.



Integration across the enterprise

Paper-based and spreadsheet records also silo data in one person's files or computer. That prevents cross-functional review of an audit finding or nonconformance in a timely manner, thus increasing the risk of a recurrence or release of the product into the supply chain.

The founder and guru of Quality Management in manufacturing, Dr. W. Edwards Deming, said when a company can address an issue internally the cost is only one times (1x) the cost of good sold (COGS). But once it enters the supply chain, the cost skyrockets to a thousand times (1,000x) or more the COGS. That's why it is so important to address quality issues as soon as they are identified, whether it is internally or at your supplier or contract vendor location. Quality issues can have a significant impact on company profitability, brand reputation and consumer health and safety.

So once you digitize data and automate processes, connecting those processes, systems and equipment enables greater data transparency and visibility into trends within a production line, a facility, or across the enterprise. This establishes the groundwork for data visibility and allows new technologies such as robotics, AI and IoT to be added with less interruption.

In order to increase process and data collaboration, it's important to select a system that integrates with your current and planned systems. This enables master data to be shared across systems for consistency and less data entry errors. It also increases transparency across the enterprise to proactively monitor risk and issues that may need further investigation and corrective actions.

Visibility across the value chain

The majority of companies are dependent on a network of global suppliers and outside contract manufacturing and packaging partners. Depending on the size of the company, this network can range from hundreds to thousands of vendors and the transparency in this network is usually limited to only a few of the top partners. With an estimated 52% of product recalls attributed to supplier and contract manufacturer issues*, it is more important than ever to create visibility within the value chain network.

Look for a Quality Management solution that offers Supplier Management, so you can review, onboard and manage suppliers in one central location. It should also store updated documentations such as supplier's accreditations and product documentation. This allows cross-functional users to easily locate information without having to rely on the Purchasing department as their point of contact. Make sure the solution can easily create vendor scorecards to record risk, performance levels and audit ratings to determine the overall performance and reliability of the vendor.

And most importantly, nonconformances require investigations, root cause analysis and CAPAs to provide a closed-loop resolution process - whether it is an internal issue or a supplier quality issue. Use a system that allows suppliers to be part of the resolution process to provide a comprehensive audit trail. It helps establish best practices and continuous improvement efforts by both parties.



*Recall Execution Effectiveness, Deloitte, FMI, GMA, GS1 US

Business benefits

Reducing the cost of poor quality

The Cost of Poor Quality (COPQ) refers to the costs that are generated as a result of producing defective material. The direct costs are easy to identify, such as labor, rework, disposal, material and recall costs. However, the indirect costs can also significantly impact a company's profitability. These costs include excessive overtime, warranty costs, returns, excess inventory, lost sales, compliance failure, increased audits and brand reputation damage.

COPQ for an average company is about 20% of sales.¹ So a company that generates \$100M in revenue can waste \$20M in addressing poor quality.



An industry study² from Georgetown University uncovered some surprising statistics from responders:

- 62% did not calculate the cost of poor quality (COPQ)
- 92% have not compared the cost of improvement with the cost of poor quality (recalls, rejections, low yield, downtime, etc.), which can be considerable
- 28% estimated that a simple failure investigation costs over \$10,000
- 65% indicate that a complex failure investigation will cost over \$100,000
- Complaint investigations are even more expensive and can cost \$1M in costs associated with regulatory sanctions (recalls, import bans, fines, disgorgements and lawsuits)

It is in the best interest of the brand owner to identify problems early to reduce the impact on costs, operational resources, brand reputation and, most importantly, consumers' health and safety.

One of the best ways to ensure product quality and reduced costs is by implementing a quality management solution.

¹ The Cost of Poor Quality, isixsigma.com

² Current Challenges in Implementing Quality Risk Management, ISPE.org

Deployment: SaaS versus on-premises

When looking for an IT solution, companies are wondering whether they should select a Software as a Service (SaaS) or an on-premises solution. Before you decide on the type of implementation, it is important to decide where your company is moving in the future and which solution will best meet those needs.



Total Cost of Ownership (TCO) – While there are similarities to the users in each implementation, the CFO may be interested in the TCO behind each. SaaS solutions offer license models that are more dynamic and the upgrade cycles are shorter. An on-premises solution requires purchasers to understand the intricacies of the subscription model, storage requirements, service renewal costs and other service-related hidden expenses to estimate the TCO.

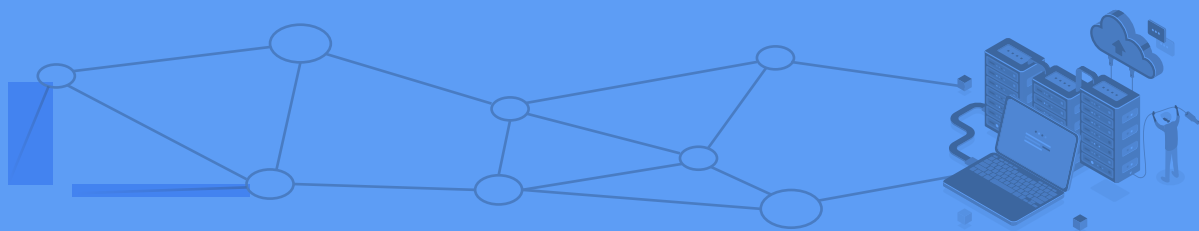


Immediate Business Benefits – A SaaS solution provides immediate updates several times a year, shorter deployment times and greater independence from the IT department. There is also more usability from end users through corresponding mobile solutions. On-premises solutions require costly and lengthy onsite services support to upgrade existing implementations or companies will have to live with outdated legacy system.



Flexibility - Both SaaS and on-premise solutions are scalable, easier to configure and have technical flexibility. However, SaaS is more flexible for the end user since there are no limitations when it comes to access (excluding a working Internet connection). SaaS software can be accessed from multiple devices from anywhere. On-premises solutions deliver integration capabilities but have limited access to new features and functionality during a new release.

More information on assessing SaaS versus On-Premises solutions can be found [here](#).



Meet Cority

How to decide

Proven, award-winning software recognized by independent industry analysts for covering every aspect of environmental, health, safety, and quality (EHSQ) management. Our powerful, fully unified True SaaS model is designed, deployed, and supported by industry experts. Cority has an unmatched record of deployment and adoption success, plus the highest client satisfaction in the industry. For over 30 years we've been trusted by leading organizations to advance their journey to sustainability and operational excellence, improve safety culture, and provide measurably better EHSQ outcomes.



We're here to help
you on your digital
transformation
journey.

Whether it is standardizing
an EHSQ process or
transitioning into Industry
4.0 technologies, let us
help you get there.