

ENTERPRISE MANAGEMENT SYSTEMS

In a digital world, your management system must be(come) digital!



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The pace of change in a digital world is becoming faster and faster. With digital transformation and the continuous drive for differentiation, innovation and customer-centricity, business models, business processes and working procedures—which have been stable for years—are changing continuously. During this time of change, you can't afford to reduce quality, take more risk or become less efficient. Instead, your digital transformation should be an opportunity to increase quality, better manage your risks, and become more agile and efficient. Ignoring business model innovation and digital transformation will be riskier than anything your company has ever done.

In this digital world, your enterprise management system must be(come) digital!

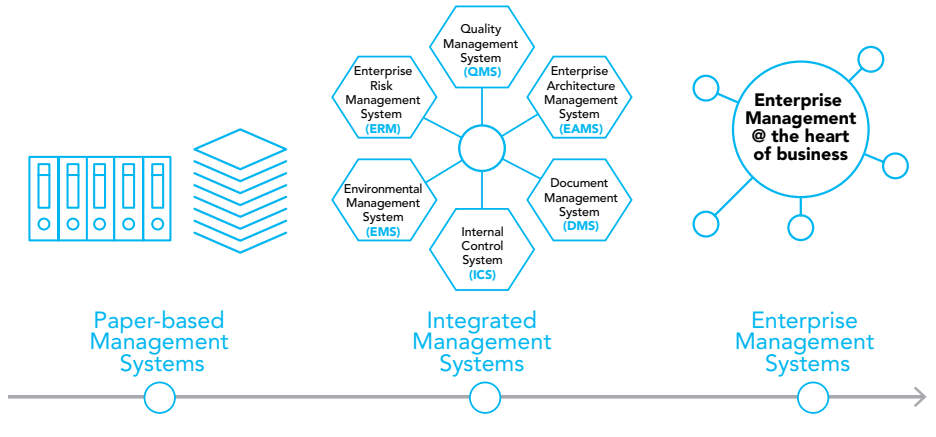
Evolution of management systems

Let's take a quick look back. Many companies have set so-called management systems to standardize and share process information and working procedures. Their target: Ensure business operates in a repeatable manner with a defined quality, consistent efficiency and maximum risk mitigation. Depending on industry and main drivers, different management systems have evolved over time:

- Quality management systems were driven mainly by repeatability and quality requirements and are often seen in the manufacturing industry

- Corporate risk management systems are meant to meet risk and security requirements; they're common in regulated industries like oil & gas, pharmaceuticals and chemicals but extend to all other industries
- Internal control systems are mostly policy- or regulation-driven and seen in the financial and services industries to support sustainable corporate management

All of these management systems document how the business operates; they give guidelines and instructions and make the workforce aware of potential issues, risks or regulations related to their working procedures. Their main goal is to make this information available to the workforce at any time, at any place and to always provide the latest, most accurate information.



Evolving From Traditional Management Systems to Enterprise Management Systems

Throughout their evolution, management systems have focused on specialized topics—for example, content management, document management and risk management—and have been interlinked into integrated management systems. For a time, this was the “ideal solution,” covering all company processes and management requirements across different topics. Because the digital age has changed everything and companies constantly need to adapt to market and customer requirements, management systems are evolving toward enterprise management systems.

Many enterprises still use printed documentation that’s posted for the workforce in their offices or on the shop floor in dedicated areas. As you can imagine, any change in a procedure becomes a challenge since the printed version must be updated with a new version. The workforce must be made aware of the change and able to access the updated information. Admitting that companies constantly need to adapt and their processes too, this is not a one-time challenge but a continuous one. More advanced companies have a portal to provide electronic versions of their documents, at least for those employees who have access to a desktop computer.

While this has significantly improved the quality and adoption of business-critical information, the challenge remains: How do you reach out to any employee despite location and work environment—for example, during a storm on an oil platform or in a logistics center with a huge employee turnover—with the latest up-to-date information when it’s needed? How do you know that your workforce is actually using this information?

That’s where an enterprise management system comes into play.

Enterprise management systems at a glance

In a digital age, it's not only about few people providing information to the masses. Our culture is changing. The influence of social media and digitization in the B2C area brings new habits and expectations among customers and employees. In fact, you can—and should—now leverage the wisdom of the crowd and allow your employees to contribute to better operations, better quality and less risk. After all, they know your business and procedures in detail. While on the job, they see on-site what happens and what can be done better. And, most importantly, they are often willing to give feedback. By listening to them and incorporating their inputs, you can improve the acceptance and adoption of your management system. On top of that, you'll become a process-oriented organization with best-in-class processes.

In a nutshell, an enterprise management system:

- Always has up-to-date information
- Provides one version of the truth
- Offers easy-to-consume information
- Is easy to access (anywhere and anytime)
- Provides information about the usage and adoption of the system
- Supports continuous change management
- Enables continuous process improvement and transformational change, supporting collaboration with the workforce and contribution by anyone
- Connects the "inside-out" and "outside-in" perspectives for a better customer experience

Further, an enterprise management system needs to cope with the main influencing factors of the digital world and, thus, must:

- Support mobility
- Support the Internet of Things (IoT)
- Work in the cloud
- Be real time—just like a digital business

Now that we understand management systems and the relevant requirements for enterprise management systems, let's look at what's driving them.

Enterprise management system drivers and requirements

Access and standardization are key

Quality needs to be in the DNA of all your business operations. In today's business, a library of quality handbooks and printed work instructions may secure your certification of compliance. But such last-century systems have critical drawbacks in today's digital world:

- Employees have a hard time finding and consuming the information
- Updating is slow and error-prone; it's hard to keep handbooks consistent and up-to-date
- Employees don't like having to use them—that lowers quality awareness
- You're not using the knowledge of your employees to improve quality

An enterprise management system changes this:

- Making it easy to find and consume information as well
- Making acceptance and easy usage the grounds for understanding and correcting performance of standards, guidelines and operations

"Philips increases innovation and leads the competition with ARIS through the development of a structured business architecture methodology, standardized processes and a foundation for quality management rolled out to numerous employees. At the same time the reduction and prevention of unrewarded complexity in non-differentiating processes saves millions of euros, increases quality and enhances quality control."

– Royal Philips

- An enterprise management system not only defines the principles, policies, processes and requirements for safe and effective business operations, it also supports the daily activities of the entire organization requiring compliance. Its goal is to streamline and enhance the system to provide everything workers need in one place.

On the other hand, an enterprise management system gives you the chance to gather and make use of the process knowledge spread throughout your workforce in real time.

The process collaboration capabilities of Software AG's ARIS enable you to achieve these goals. Via a browser-based portal, employees can access all information and share it according to role. Because the people who use ARIS aren't necessarily process modeling experts, they can access process information in different formats (for example, work instructions, process fact sheets and step-by-step guidance). Related process information and other multimedia documents are integrated as well.

"ARIS enables us to increase standardization; work more efficiently and especially helps us perform our operations in a safer manner."

– **Magne Frantsen** | Vice President, Statoil

Process consumers may evolve into process contributors, so-called prosumers. Since they know their specific business and tasks best, they may have additional information or new requirements or suggestions to add to the processes. ARIS supports this continuous process collaboration based on workflows so process contributors can trigger process changes with remarks and contribute directly to the process in a very easy way.

For sure, giving the power back to the business requires process governance to manage the business knowledge but it is key to a successful enterprise management system.

Managing your documents the digital way

A proven way to build an enterprise management system is to put into writing any procedures, policies and regulations and to ensure they are available to the people who use them in their daily work. By keeping the scope of management systems small, the number of documents remains manageable. Laws and regulations tend to account for technological advances only with substantial latency. There are good reasons for this conservatism: Hurrying to update the rules with every technological whim could curb their adoption and weaken their efficacy.

The digital society, however, is here to stay. It is hard to imagine a world without apps, mobile devices and digital services. The speed of change in digital business operations is much higher than in traditional business. Apps are updated weekly and companies launch new services at a dazzling speed to stay ahead of the competition. A traditional, document-based quality system cannot keep up with that pace. Your quality system also needs to become digital.

The drawback of a documents-based approach is that changes across different documents and changes across different quality management areas are time-consuming and error-prone. An enterprise management system, however, retains the necessary documents and allows local quality managers to make changes whenever necessary.

What an enterprise management system adds is a central repository of processes and procedures. Rather than repeating textual descriptions of work instructions in multiple documents, they are modeled only once in a managed repository. This allows you to make your documents smaller while retaining all the necessary information people need. Secure procedures ensure that central changes do not propagate to your local management systems without prior review and approval.

An enterprise management system also makes it easier to replace or augment lengthy work instructions with simple instruction videos, resonating more with the digital generation.

ARIS combines a central repository with and integrated document storage for multimedia elements. This combination is the basis for a real enterprise management system.

An enterprise management system makes customers happy

We are living in the age of the customer. Digitization means using digital technology to put your customer in the middle of everything you do—that is, to continuously adapt to meet market and customers' requirements. You are empowering your customer by providing digital services. It has never been easier for customers to sign up with your services. But it's also never been easier for your customers to take their business elsewhere; it's as easy as deleting your app.

To retain and attract customers, you must provide quality services to the highest standard all day, every day. That's why an enterprise management system needs to consider not only the internal perspective but also customer views. Every employee should be aware how he or she contributes and influences to the customer experience. By combining internal procedures while ensuring all critical customer touchpoints are well served, you can achieve smoother internal operations and result in an overall better customer experience. This is becoming more and more critical to survive in the digital world.

Consider and include the customers' view in the internal processes with ARIS-specific modeling of customer journey landscapes and customer touchpoint maps. The interlinkage of internal business processes with the customers' perspective will help to improve overall customer experience.

Manage and prevent risk

Managing and preventing risks plays a crucial role in numerous industries. Organizations more than ever are aware of the importance of managing risks. Recurring financial crisis, strategic failures, cyber attacks and natural disasters remind us of the perils of "not getting it right." At the same time, creating value or doing business is impossible without taking risks.

An Enterprise Risk Management (ERM) system helps you deal with these critical issues. You can identify risks preventing the achievement of a certain objective, which leads to identifying threats or opportunities. The benefit of "control" is to help you cope with permanently changing and risky business environments.

Effective ERM helps management reliably achieve its objectives and balance seemingly competing goals, such as reducing process cycle time and cost, with output quality and (regulatory) compliance. Therefore, it's crucial to align ERM with business performance. Providing the up-to-date and comprehensive view on business performance (planned financial results) under risk and performance context (possible plan deviation) creates the transparency fundamental to good decision-making.

Organizations must move toward greater digitization because automation facilitates real-time monitoring and real-time data analysis. Instead of taking a reactive approach to risk, they must take advantage of digital data analysis tools to identify emerging and impending risks—in time to do something proactive to mitigate or avoid these risks. Instead of acting retrospectively and executing controls at set intervals, organizations need to shift to control systems that operate continuously and can facilitate business decisions based on predictive analytics.

The combination of business process analysis with governance, risk and compliance capabilities in ARIS—with mobile capabilities on top—enables you to steer your management system toward an enterprise management system, minimizing risks and working more efficiently at the same time.

"ARIS provides us with more control over the quality of the applications we develop. These benefits directly translate into better service for our customers."

– **Pieter van Langen**, Senior Management Advisor, Application Development & Maintenance, Rabobank Nederland

"At Centrica Health and Safety are fundamental to our business. They span everything we do, from working in customers' homes to securing energy offshore. By minimizing hazards, we can keep our people safe and work more efficiently."

"We help our engineers work safely by providing training and assessing performance to identify improvements. And we have developed a comprehensive framework for managing process safety which is intended to help us achieve our long-term goal of 'our assets are safe and we know it'."

– **Centrica**

“Deutsche Lufthansa has embarked on a mobility strategy to deliver process information to the Cargo division. We used ARIS Mobile very intensively throughout the PowerON beta program and developed the Lufthansa Process Guide app to empower on-site staff. ARIS Mobile Access offers easy and contextualized access to working instructions via mobile devices. With the new process guide app, Lufthansa expects to reduce training efforts and improves on quality and compliance with process standards. With non-textual, visual process instructions, the app helps to overcome language barriers, deals with heterogeneous educational levels, and generally improves employee acceptance of business process management.”

– **Essam Shurbaji**, System Lead, BPM division, Deutsche Lufthansa Group

An enterprise management system needs mobility too

Offering static process information and access is good but not good enough. Employees need specific information in their ad-hoc business context. What does this mean? A shop-floor worker, for example, needs different information depending where and what he does, the production facility or a specific production series. Many procedures encounter adaptations depending on location, time, product and more. Further, employees need a solution to share their process information and feedback on-the-go.

ARIS brings all the relevant information to all employees on their mobile devices, recognizing location, context and their situation using bar codes on machines or GPS data of location. So ARIS not only supports an enterprise management system, it also easily adapts to industry and customer-specific use cases.

With digitization, knowledge is everywhere

Setting up an enterprise management system helps you manage the knowledge of procedures, guidelines and processes. But it does even more. Managing knowledge means capturing, developing and sharing knowledge. It also implicates effectively using organizational knowledge.

With an enterprise management system, you can:

- Keep track of system usage
- Monitor process change requests and changes
- Measure the interest for specific process areas—for example, in analyzing the number of followers or interactions related to a process
- Regularly analyze your system to monitor quality and efficiency, giving you the chance to gain insights on how the system is used, in which situation, from which kind of stakeholders and more

Making better use of this system and organizational knowledge will give you one more big competitive advantage: the knowledge you need to improve. This, in turn, will help you to establish continuous improvement for a successful enterprise management system.

Technology is an enabler—so consider your options

Last but not least from a more technical perspective, an enterprise management system should give you a full range of technology choices. Depending on your requirements, you may want to go for an on-premises solution or a cloud-based offering. Whatever you choose, you should keep in mind that you may need to change in the future—so it's better to go with a flexible solution that supports your ongoing digital transformation.

ARIS offers a full enterprise management system solution that's available on-premises, in the cloud and even as a combination. A wide range of deployment scenarios and flexible configuration options enables you to sustain and reach the development potential of your enterprise management system as well as attain user acceptance and usage in the long term.

10 KEY TAKEAWAYS

about
**AN ENTERPRISE
MANAGEMENT SYSTEM**

1 The n:m rule

Include EVERYone
Listen to EVERYbody (leverage the wisdom-of-the-crowd)

2 Get another pair of glasses

Offer role-, organization- and location-based information
Adapt content display to your audience
Improve adoption

3 Reduce and secure

Get rid of non-compliance
Minimize risk of accidents and losses
Slash operational costs

4 Embrace document management

Retain all necessary information in a central repository
Eliminate uncontrolled documents

5 The 3 C's of EMS

Communicate information and instructions
Collaborate
Collect feedback and data

6 Move your process

Processes (should and need to) change fast
Fasten change and improvement cycles

7 Manage agility

Structure the unpredictable
Secure quicker uptake of new working ways

8 The process sushi

Take the outside-in perspective with customer journeys
And take the inside-out view into consideration

9 Mobile first

Go mobile
Offer dedicated multimedia information on-the-go

10 Well... do we REALLY need to mention it? Digitization

A digital enterprise management system is key to survive in today's digital world

Take the next step

An enterprise management system is mandatory in today's digital world to support your company's survival and competitive differentiation. With it, you can integrate all relevant information and documents, take employee feedback into account and give the right and relevant stakeholders—internally and externally—the right information at the right time. Done right, your enterprise management system needs to be adaptable and integrated.

So the question is not IF management systems can survive in today's digital world but HOW enterprise management system can help YOU survive in the digital world. ARIS is the essential building block for your future digital management system and fulfills both your strategic and operational requirements.

Talk to your Software AG representative to explore how ARIS can support your enterprise management system in the digital age—where change is the only constant.

ABOUT SOFTWARE AG

Software AG offers the world's first Digital Business Platform. Recognized as a leader by the industry's top analyst firms, Software AG helps you combine existing systems on premises and in the cloud into a single platform to optimize your business and delight your customers. With Software AG, you can rapidly build and deploy digital business applications to exploit real-time market opportunities. Get maximum value from big data, make better decisions with streaming analytics, achieve more with the Internet of Things, and respond faster to shifting regulations and threats with intelligent governance, risk and compliance. The world's top brands trust Software AG to help them rapidly innovate, differentiate and win in the digital world. Learn more at www.SoftwareAG.com.

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