The Digital Transformation of *Quality Management*

DEKRA On the safe side

The digital transformation of quality management

Strategies and systems are going digital to provide effective quality management designed to ensure quick, continuous and technology-appropriate tracking and assessment of products, processes and services in the digitalized business environment. Companies operating in the connected spaces of Industry 4.0 now rely on effective oversight and evaluation of digital solutions implemented to increase productivity and reduce cost while fulfilling customer expectations as well as regulatory compliance and quality standards. Here, we provide industry and business leaders the information about state-of-the-art assessment methods they need to compete and thrive in the global digital landscape.

Key facts:

- In the rapidly evolving digitalized business environment, digital strategies and systems are routinely added and optimized to provide effective cross-platform quality management for the tracking and assessment of products, processes and services.
- Industry and business leaders now rely on credentialed auditors armed with state-of-the-art assessment methods to evaluate and oversee solutions and systems at the heart of their digital business operations.
- Audit 4.0 has been developed to ensure cross-platform quality management strategies and systems are performing as needed to optimize processes, analyze risk and ensure compliance as part of overall digital transformation.
- The digital diagnostic audit for successful transformation to the Industry 4.0 business environment includes in-depth analysis to provide companies critical support in selecting and implementing effective solutions tailored to their unique digital workspace.
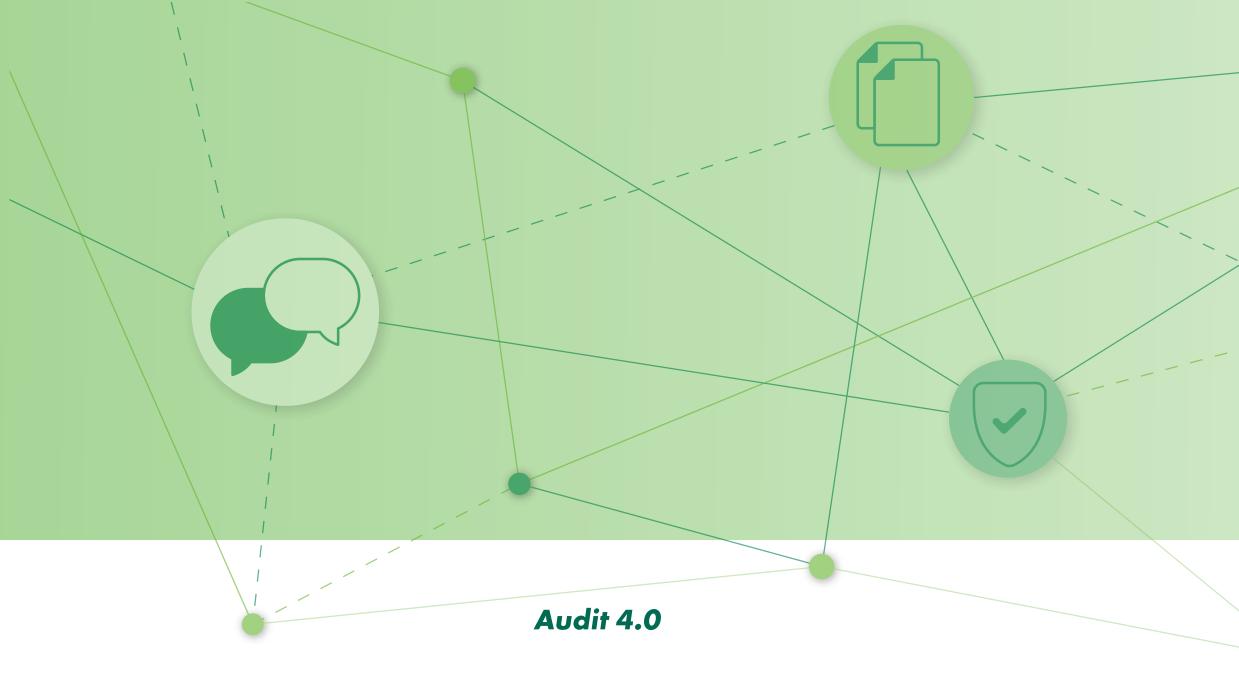
The world of Industry 4.0

In addition to modernizing technology and investing in new solutions, companies today must take advantage of digitalization opportunities to stimulate growth, sustain competitiveness and increase profits. Industry 4.0 integrates objects, equipment and humans performing in diverse roles and workspaces to transform industrial production and business processes through linked advanced technologies such as automation, artificial intelligence (AI), machine learning (ML) and cloud computing. Technical strategies and solutions must therefore be on par to ensure efficient cross-platform quality management.

With the adoption of digital technologies growing at a rapid pace, it is important to develop and implement reliable assessment methods and protocols to support and improve functionality in many scenarios. Audit 4.0 strategies aim to provide precise evaluation of the effectiveness of processes and practices driving or connecting operations in Industry 4.0 technological categories including:

▶ the internet of things,
▶ cyber security,
▶ cloud activity,
▶ additive manufacturing,
▶ augmented reality,
▶ big data and analytics,
▶ autonomous robots and simulation as well as
▶ horizontal and vertical system integration.

Reliable assessment methods are **vital** to thrive in the digital landscape.

Audit 4.0

The digital diagnostic audit for successful Industry 4.0 transformation helps business leaders better assess current conditions so they can recognize proven strengths and address unique challenges. Audit 4.0 includes the in-depth analysis and tailored assessment needed to select and implement effective solutions to increase efficiency and reliability throughout the digital workspace.
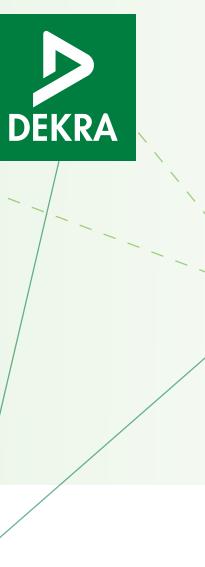
Whether using cloud activity to achieve compliance and drive initiatives, advanced analytics to uncover inefficiencies, recognize trends and track improvement, or machine learning solutions to identify manufacturing defects to avoid product recalls, digital quality management systems increase productivity, drive growth, support resilience and protect competitive power. Automated quality management achieved through digital transformation facilitates improved handling for higher customer satisfaction and a better overall brand experience.

Credentialed auditors assess whether quality management systems are properly functioning to optimize processes, analyze risk and ensure compliance as part of the overall digital transformation.

Benefits of digitalized quality management

Audit 4.0 methodology encompasses input from clients, auditors, certification bodies, accreditation organizations, standards regulatory bodies and other relevant authorities.

Quality management can be realistically assessed with frequent sampling and continual monitoring via real-time data streams and red flag systems. Specialized apps, cloud-based auditing and augmented reality tools allow for quick and precise evaluation of management system processes in automated robotic systems and predictive maintenance protocols as well as traditional and smart factory infrastructures.

Developing, implementing and maintaining effective and sustainable quality management throughout the digital landscape increases efficiency providing access to reliable real-time results for higher confidence and optimal performance.

Operating in the ever-expanding networked world of commerce requires digital transformation to link manufacturing sites, suppliers, administrative departments and other stakeholders for a more streamlined and productive business. Solid cross-platform quality management supports successful digitalization to secure the ability to do business in the future.

Challenges moving forward

As technology advances at astronomical speed and market access grows, businesses will need to invest both money and mind power into furthering and improving digitalization developed to optimize both internal and external value chains. Providing excellent customer service and proven quality while ensuring compliance to stricter regulation must be considered when implementing new digital solutions into an already complex mix.

Successful companies must be able to recruit and sustain a highly trained and motivated staff with the capabilities to adapt to and perform in the fast-paced, technology-driven business environment.

Auditing strategies and methodologies must continue to adapt to new digitalized applications in order to ensure high productivity and efficiency as well as optimal customer service performance. Business leaders will need to rely on qualified auditors to provide state-of-the-art services designed to minimize risk and maximize profits.

State-of-the-art services ensure success.

DEKRA auditing services for digitalized quality management

As an internationally recognized provider of independent inspection, testing, assessment and certification services, we have gained in-depth knowledge and extensive experience in digital strategies and systems. Our specialists closely follow technical and economic developments around the world and are always abreast of relevant progress and trends.

We conduct comprehensive auditing services for effective digital transformation according to your individual needs and circumstance to keep you up and running in the digitalized business environment.

Are you interested in learning more about quality management in the digitalized setting? Speak with our experts today!

→ Contact us!

For more information, visit

→ dekra.us/audit