

Embedded Compliance in Product Development



Developing Compliant Products

Developing Compliant Products

Embedding Compliance

Competing with Better Products

SAP Innovations



33%

Of companies do not have clearly documented compliance and sustainability requirements for product development

Source: SAP Performance Benchmarking

The growing complexity of product regulation is a challenge for virtually all manufacturers, resulting in long development cycles and product recalls. The solution lies in embedding compliance and quality planning in development processes.

As consumers and regulators show increasing concern about health and environmental issues, manufactured products are subject to greater scrutiny. Regulations are not only becoming more numerous, they're also increasing in breadth and complexity. As a result, manufacturers are spending a bigger percentage of revenues to make sure their products comply with a daunting range of requirements.

In addition, as supply chains and operations become more global, a quality problem at one location can result in a massive product recall that spans many regions.

This problem is compounded by the increasingly complex structure of many modern products; the compliance status of even a small component can have a harmful effect on the end product.

To avoid these issues, many organizations conduct tedious quality and compliance checks after products are designed, thus delaying their introduction to the market. These efforts need to be streamlined in order to cut costs and increase brand equity. To create compliant products, companies must begin by embedding compliance checks and quality planning in the product definition phase, while automating processes that provide compliance data.



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SAP Innovations

By attending to compliance and quality planning early in the product lifecycle, organizations can expedite new product development and introduction. Engineers and researchers can verify product compliance before it is handed over for manufacturing – saving costs of noncompliance.

Regulatory compliance of a product depends on the compliance status of its inputs. To assess the status of raw materials, for example, one must collect relevant data from suppliers and make sure this information is rolled up to the product level.

If the attributes of raw materials are unknown, a quality plan is needed to measure, document, and share them with engineers and – ultimately – consumers.

Product quality and regulatory compliance go hand in hand. And data from these linked processes must be accessible to engineers so they can design high-quality products that meet regulatory guidelines.

Solutions for product compliance and quality planning from SAP are tightly integrated with the SAP Product Lifecycle Management application, helping manufacturers develop compliant products that meet market needs and build customer loyalty.



Stay Competitive with Better Products

Developing Compliant Products

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Competing with Better Products

SAP Innovations

16%

Higher new product revenue when organizations define and report product data for compliance and sustainability

Source: SAP Performance Benchmarking

Best-run companies outpace competitors by consistently providing superior products. Offerings that are designed from the ground up to meet high compliance and quality standards help enhance the brand and build consumer confidence.

By embedding compliance and quality in product design, manufacturers can lower nonconformance costs and significantly reduce the time and effort needed for product development.

- Reduce costs of non-quality and noncompliance as a percent of total revenue
- Support customer satisfaction and loyalty by providing high-quality products
- Reduce time to market
- Minimize manual effort needed for compliance checks
- Improve research and development effectiveness



SAP Innovations

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SAP Innovations

SAP software for embedding compliance and quality in product development is enhanced by innovations in areas such as 3D visualization, user interfaces, analytics, and cloud computing. Collectively, these technologies enable a better user experience while supporting flexible deployment options.

The SAP Product Lifecycle Management (SAP PLM) application has an intuitive Web-based user interface that can be further personalized for ease of use. With secure access controls, it is possible to work with suppliers and partners in the same system, while protecting data that should not be distributed.

An embedded viewer in the user interface allows product data to be shared across the enterprise in 3D models. Sophisticated imaging capabilities enabled by visual enterprise solutions help unlock the potential of product data long before the product itself reaches the production line.

Analytics – displayed in side panels – provide contextual information alongside views of the object being processed, leading to faster, more informed product decisions.

The SAP Product Stewardship Network, a cloud-based collaboration community, allows enterprises to share compliance data with suppliers and customers. Data from the network can be integrated with on-premise solutions to improve product quality and compliance.



Take Quality and Compliance to Market

Solution Overview

Product Compliance

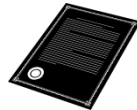
Product Design

Product Development

Quality Planning and Control

Product Innovation

Why SAP?



Product Compliance

Help ensure product marketability, protect profits, and safeguard the brand against increasingly complex regulations.



Product Design

Improve design efficiency using a collaborative approach, while providing relevant quality and compliance data to design teams.



Product Development

Speed up product realization and launch by using a cross-functional approach and providing contextual quality and compliance information to developers.



Quality Planning and Control

Embed quality attributes in the design process, integrate quality-related information with other business units, and enable a continuous improvement process.

Embedded Compliance in Product Development

Solution Overview

Product Compliance

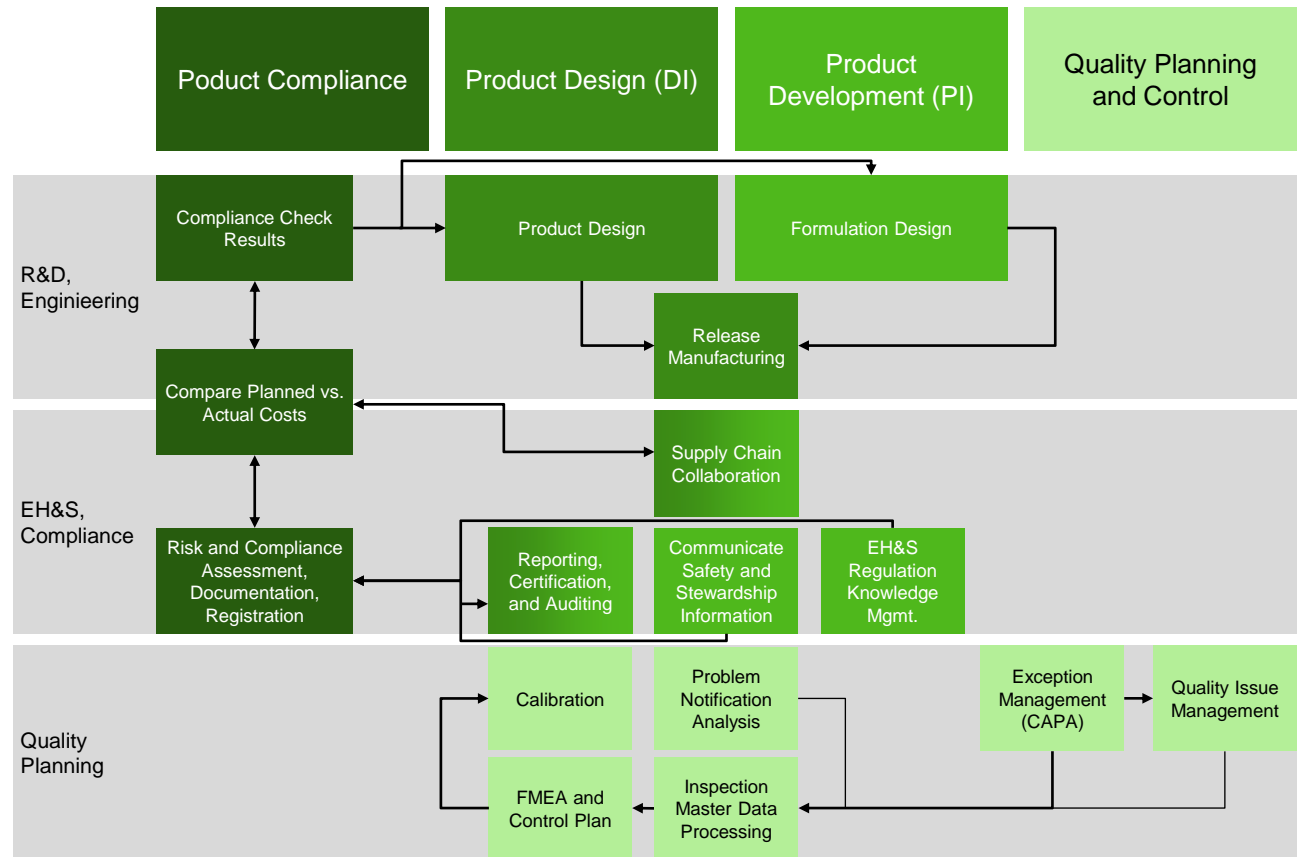
Product Design

Product Development

Quality Planning and Control

Product Innovation

Why SAP?



Product Compliance

Solution Overview

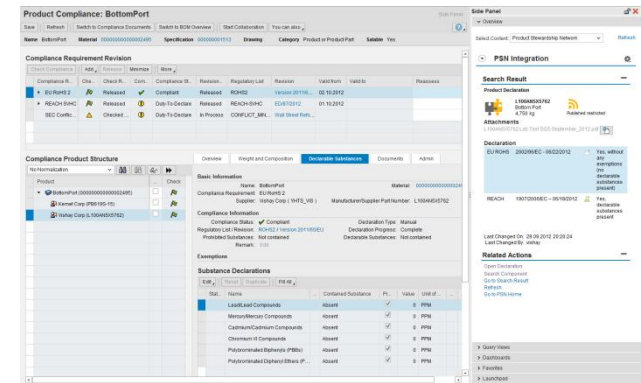
Product Compliance

Capabilities

Benefits

SAP Innovations

Solutions for product compliance from SAP help ensure product marketability by enabling manufacturers to work with supply chain partners to enhance product compliance early in the development process.



53%

Of companies regularly assess a product's impact on environment, health, and safety during design, manufacturing, and distribution

Source: SAP Performance Benchmarking

With SAP software, product safety and steward-ship teams can access compliance data from suppliers and combine it with regulatory content during all phases of the product lifecycle.

The solutions help ensure marketability by generating and providing compliance declarations and documentation. They also reduce risk by embedding compliance controls in product development. Business risk can be further reduced using analytics to evaluate portfolios of individual products and components.



Protect Revenue and Brand

Solution Overview

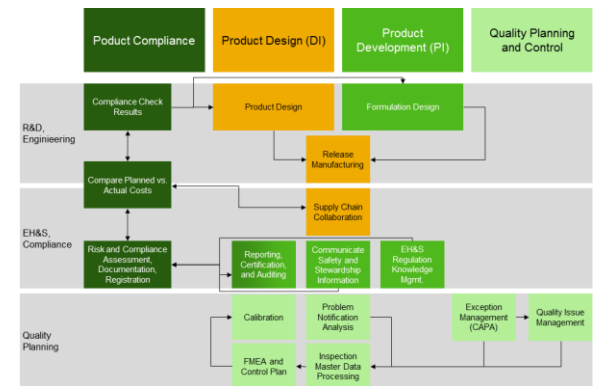
Product Compliance

Capabilities

Benefits

SAP Innovations

Materials and composition management software helps control the definition and composition of raw materials to support compliance checks.



49%

Of project teams do not have easy access to real-time information on compliance and sustainability requirements

Source: SAP Performance Benchmarking

Regulatory knowledge management functionality in the SAP Environment, Health, and Safety Management application enables access to downloadable regulatory content. It also improves control over customer requirements, including substance thresholds and exemptions.

Supply chain collaboration capabilities improve teamwork with suppliers in order to facilitate the collection of compliance data.

Compliance assessment and documentation functionality helps evaluate materials, components, and products in terms of environmental regulations and customer requirements. Periodic compliance checks help engineers assess product compliance during both design and manufacturing phases.

Functionality supporting product safety communication allows compliance declarations to be published automatically for customers.



Product Compliance Helps Ensure Marketability and Reputation

Solution Overview

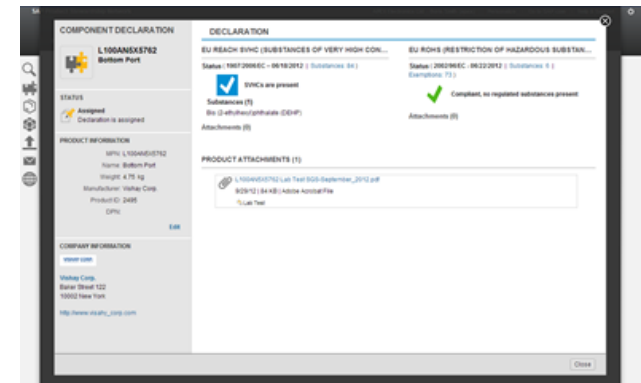
Product Compliance

Capabilities

Benefits

SAP Innovations

Protect revenue and brand by making sure that products are compliant with environmental, health, and safety regulations, as well as legally viable for sale in target markets.



36%

Higher new product revenue for companies that use compliant and sustainable components and materials

Source: SAP Performance Benchmarking

Environmental regulations require manufacturers to assess products for substance restrictions and many other obligations. In most cases, this means that supply chain collaboration is needed to obtain the information about material composition and other environmental, health, and safety data.

SAP software for product compliance helps manufacturers improve the efficiency and scaling of compliance management processes. It also helps integrate compliance attributes across design, manufacturing, and sales activities.

By embedding product compliance into each phase of the product lifecycle, companies gain better control of compliance obligations, which helps to protect market access and build sales.

Networking functionality – which links an online collaboration community with a scalable, on-premise data management platform – gives manufacturers control of compliance costs by making data collection more efficient and reducing noncompliance risks.



Innovations for Product Compliance

Solution Overview

Product Compliance

Capabilities

Benefits

SAP Innovations

SAP innovations for cloud and analytics provide a consolidated, holistic picture of product compliance.



55%

Of companies do not use integrated applications to manage compliance processes

Source: SAP Performance Benchmarking

Cloud

The SAP Product Stewardship Network is an online collaboration community that connects companies to their customers and supply chain partners, enabling an efficient exchange of compliance data. The network extends internal product compliance systems by integrating the regulatory content and supplier declarations needed for compliance assessments.

Analytics

Analytics capabilities help companies make better decisions based on compliance data. By combining product compliance data with other business data – such as sales transactions, inventory levels, and purchasing volumes – manufacturers can take prompt and effective action to address business risk.



Product Design

Solution Overview

Product Design

- Capabilities
- Benefits
- SAP Innovations

SAP software supports the integration of all aspects of product design, including quality and compliance, to help design teams reduce development time and create more innovative products.



23%

Higher new product revenue for organizations that capture new product ideas from all stakeholders via multiple channels

Source: SAP Performance Benchmarking

SAP software for product design helps companies align product portfolios based on design, costing, and manufacturing needs. Collaboration during the design phase plays a key role in reducing development time and capitalizing on new ideas from external sources.

Manufacturing teams benefit greatly when design definitions accommodate product manufacturing attributes. Early definitions of material requirements and functional aspects also have a substantial impact on a new product's usability and costs. Precise cost estimates, created as early as possible in the product lifecycle, often result in the best product margins.



Streamline Product Design

Solution Overview

Product Design

Capabilities

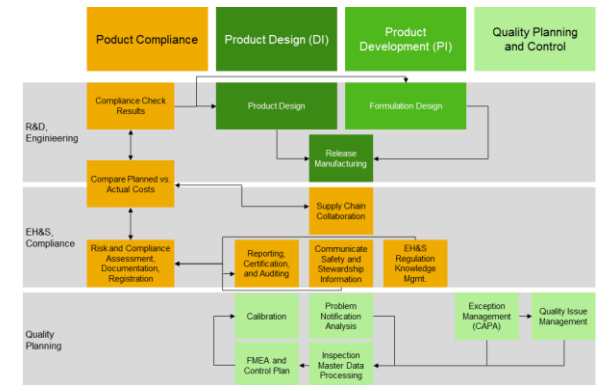
Benefits

SAP Innovations

Product design software from SAP helps companies manage complex product data with tools for managing product structure, product assembly, and variant configuration options. These tools support both top-down and bottom-up approaches used for designing new products.

The solutions also help teams cooperate in order to optimize a product's manufacturability, logistics, and reuse of components. Collaboration functionality helps connect many different departments, breaking down silos and optimizing product development.

Change management tools enable efficient and continuous transformation of products while embedded analytics support better decision making.



A business context viewer serves as a framework that allows for the integration of many different types of information into SAP applications. This visibility helps manufacturers make informed decisions about quality and compliance early in the product development process.

27%

Shorter time to market for new products when formal communication procedures link all appropriate parties

Source: SAP Performance Benchmarking



Bring Innovative Products to Market Ahead of Competitors

Solution Overview

Product Design

Capabilities

Benefits

SAP Innovations

Reduce development times, design more innovative products, increase efficiency, and improve product quality.



14%

Shorter time to market for new products when companies have a formal product lifecycle management process

Source: SAP Performance Benchmarking

Product design solutions from SAP help companies integrate many different design, development, and manufacturing activities into a cohesive whole. This unification helps reduce development times and bring more innovative products to market.

And, because data can be integrated from key areas such as portfolio planning, compliance, and part-inspection processes, companies are also able to increase efficiency and improve product quality.



Innovations for Product Design

Solution Overview

Product Design

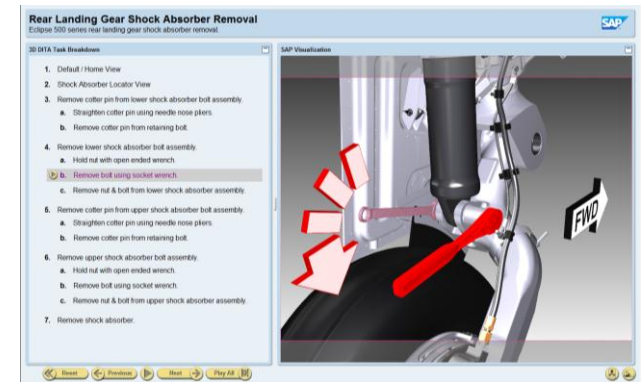
Capabilities

Benefits

SAP Innovations

SAP 3D Visual Enterprise applications enable visualization of 2D and 3D products across the enterprise.

Make better decisions, optimize productivity, and improve product quality with software that integrates 3D visualization and business data across the value chain.



SAP 3D Visual Enterprise applications facilitate effective communication among lines of business, customers, and partners.

Product Development

Solution Overview

Product Development

Capabilities

Benefits

SAP Innovations

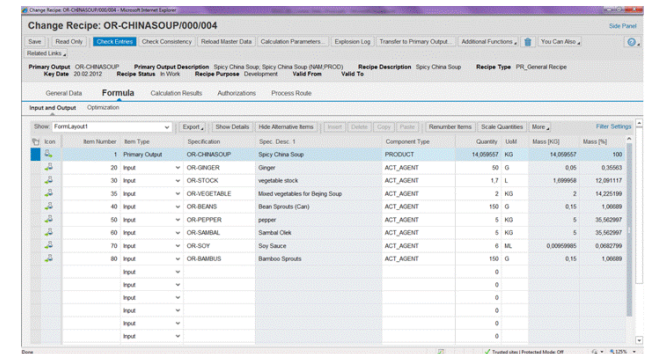
Product development solutions enable companies to integrate new product information and processes – speeding innovation and enhancing product quality.

19%

More new products meet revenue targets when idea management software is integrated with other product development solutions

Source: SAP Performance Benchmarking

Product development software from SAP helps manufacturers integrate the critical steps of product design and augment them with the data and resources needed to develop and release a new product. This includes product development tools that enhance the productivity of development professionals.



The software serves as a platform for managing the many development processes – including manufacturing, compliance, quality management, and procurement – that help ensure product success and profitability.



Create Innovative Products

Solution Overview

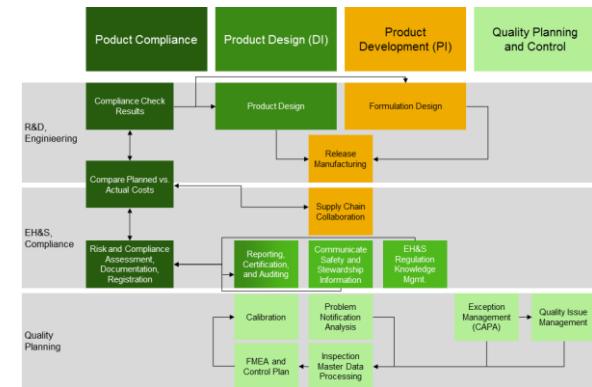
Product Development

Capabilities

Benefits

SAP Innovations

Streamline product design using intuitive product data management functionality so that new product formulations can be developed quickly and efficiently.



67%

Lower product lifecycle management costs when product data is centralized throughout the development process

Source: SAP Performance Benchmarking

Create current, accurate repositories of product specification data to support product development as well as downstream requirements.

Enable comprehensive and transparent change management processes to support efficient (and continuous) product transformation.

Improve decision making with embedded analytics.

Integrate many different kinds of data into product development applications using contextual analytics in a side panel. This gives development teams an up-front view of downstream process information, giving them the power to make informed decisions during the product development process.



Develop Compliant, Innovative, and Profitable Products

Solution Overview

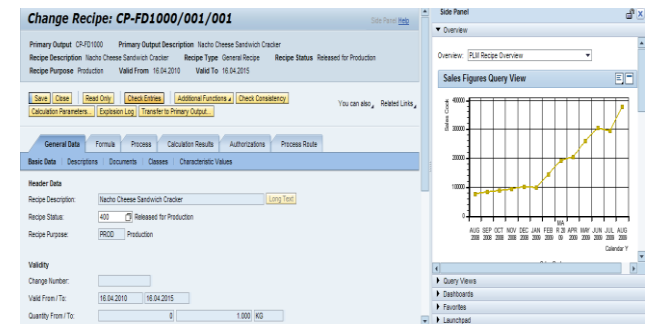
Product Development

Capabilities

Benefits

SAP Innovations

Product development solutions from SAP help manufacturers integrate processes and information across the organization to create new products more efficiently and effectively.



31%

Higher new-product revenue when companies capture and share ideas from partners and customers

Source: SAP Performance Benchmarking

Connect and combine the people, data, and processes that contribute to the development of innovative products. Create a seamless process that enables all teams involved in product development to make informed

decisions. This collaborative framework helps improve product quality and shorten design cycles. It also enables the development of innovative products that comply with regulatory requirements.



Innovations for Product Development

Solution Overview

Product Development

Capabilities

Benefits

SAP Innovations

A flexible, user-centric interface provides significant benefits for product development teams in process industries.

Search Results		
Results per Page	Display Preview	Additional Functions
<input type="checkbox"/> BF_STOCK	Material Description: French Onion Soup Created By: 824021 Changed On: 21.08.2011	Type Description: Foods (excl. perishables) Created On: 21.09.2011 X-plant status:
<input type="checkbox"/> 000000000037	Specification Type: REAL_SUB Identifier 1: Created By: 807873	Spec. Type Descriptio: Real Substance Created On: 09.02.2012
<input type="checkbox"/> 000000000037000000	Recipe Desc.: Onion Soup Created On: 09.02.2012 Last Changed By: 807873	Rec. Type Description: Mineral Created By: 807873 Purpose Description: Development
<input type="checkbox"/> 0000000000370002001	Label Desc.: Demo French Onion Soup Valid To: 31.12.9999 Created On: 21.08.2011 Changed By: 824021	Valid From: 12.08.2010 Created By: 824021
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73%

Of organizations do not support idea management with integrated enterprise applications

Source: SAP Performance Benchmarking

Role-specific user interfaces eliminate the need for extensive training because they allow application tools to match user needs.

A user environment that is intuitive and understandable helps speed time to benefit for the underlying solutions.

An improvement in user acceptance and adoption helps boost productivity across the enterprise.



Quality Planning and Control

Solution Overview

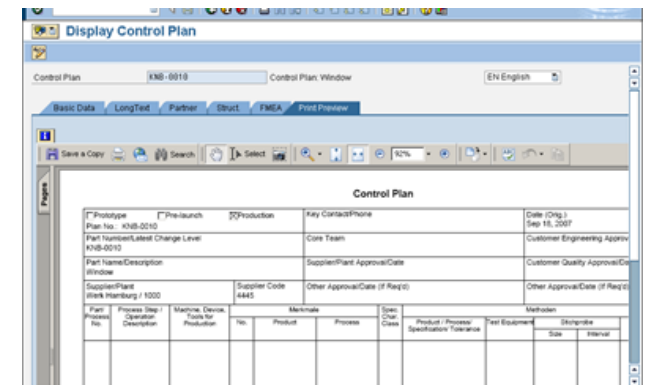
Quality Planning and Control

Capabilities

Benefits

SAP Innovations

Quality planning and control solutions from SAP help manufacturers achieve “quality by design,” share quality-related information across business units, and enable a continuous improvement process.



27%

Shorter time to market when data on delivery, quality, and costs is shared early with suppliers

Source: SAP Performance Benchmarking

Product quality is mission critical for all manufacturers. Given today’s complex production cycles, it must be engineered into products and processes as early as possible.

With the tight integration of the SAP ERP application, manufacturing teams can collaborate to create product quality plans early in the product lifecycle.

To help ensure the best outcomes, planning should begin during the design phase, then spread throughout the entire supply chain. SAP software supports a full range of quality management processes, making them more efficient and effective.



Plan Quality from the Beginning

Solution Overview

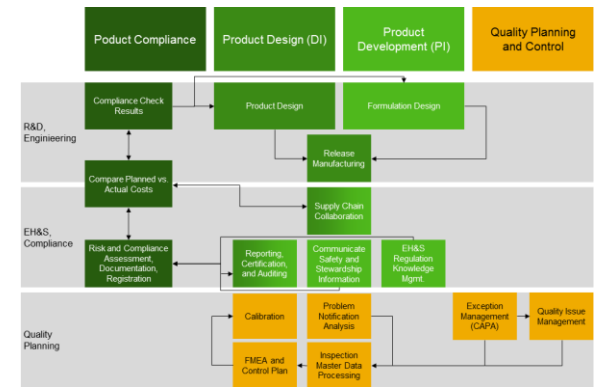
Quality Planning and Control

Capabilities

Benefits

SAP Innovations

SAP solutions enable the integration of task list planning with production, environmental, and safety activities to help ensure consistent master data and compliance with current regulations. Global catalogs – for defining defects, tasks, actions, and other quality-related items – support standardized methods for handling issues and activities.



15%

Higher capacity utilization when quality system data is shared with purchasing and production

The solutions also help improve product design using failure mode and effects analysis (FMEA), and control plans to identify risks and defects at an early stage. This allows closed-loop inspection planning in compliance with industry standards while helping to save costs.

All master data is controlled by comprehensive change management and audit trail functionality. This helps to ensure adherence to legal requirements and good manufacturing practices.

Source: SAP Performance Benchmarking



Achieve Sustained Quality Control

Solution Overview

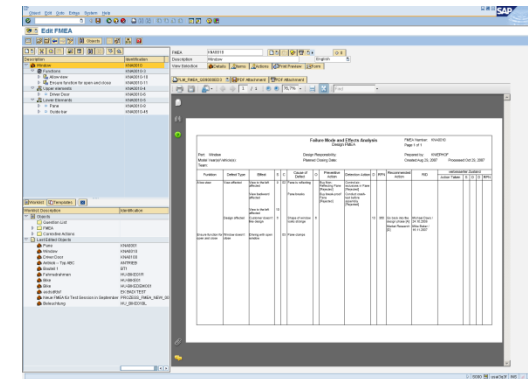
Quality Planning and Control

Capabilities

Benefits

SAP Innovations

Quality planning and control software from SAP enables continuous improvement and adherence to quality guidelines. It also helps improve traceability, product safety, and data consistency.



40%

Of organizations communicate data on delivery time, quality, and costs to suppliers in a timely manner

Source: SAP Performance Benchmarking

SAP software supports all phases of the product lifecycle, helping embed quality into processes, systems, and products – from shop floor to top floor and throughout the supply chain. The solutions help reduce product and process failures by capturing engineering knowledge and identifying potential problems.

An integrated quality approach enables teamwork and exchange of ideas among functional areas. It also streamlines the entire inspection process and leads to sustained quality control.

With integrated master data and robust tools that enable closed-loop quality planning, manufacturers can keep operational costs low and customer satisfaction high. When quality meets or exceeds customer demands and complies with regulations, it plays a crucial role in protecting the brand and building customer loyalty.



Innovations for Quality Planning and Control

Solution Overview

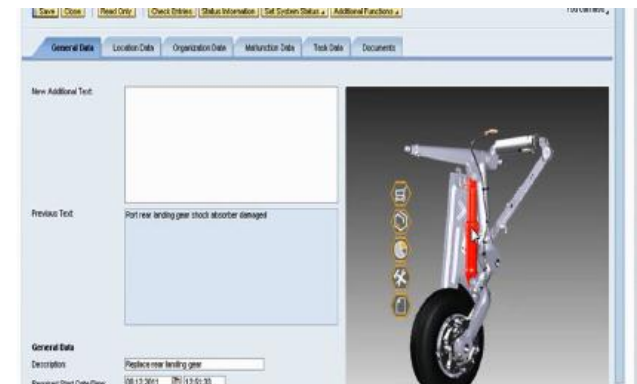
Quality Planning and Control

Capabilities

Benefits

SAP Innovations

Speedily enhance the quality engineering process by enhancing software usability and integration – and including 3D visuals.



11%

More products meet revenue targets when relevant data supports product requirements

Source: SAP Performance Benchmarking

Quality planners use transparent and non-redundant master data in SAP ERP and SAP Product Lifecycle Management. These applications offer innovative functionality for improving mass maintenance by making inspection plans more usable.

Documents and CAD drawings are very important elements in the quality management process. The SAP 3D Visual Enterprise Viewer application enables 2D and 3D views of quality-relevant parts, helping to accelerate the quality planning process.

The integration of inspection plans with specifications maintained in the SAP Environment, Health, and Safety Management application improves data consistency between organizational units.



Product Innovation

Solution Overview

Product Compliance

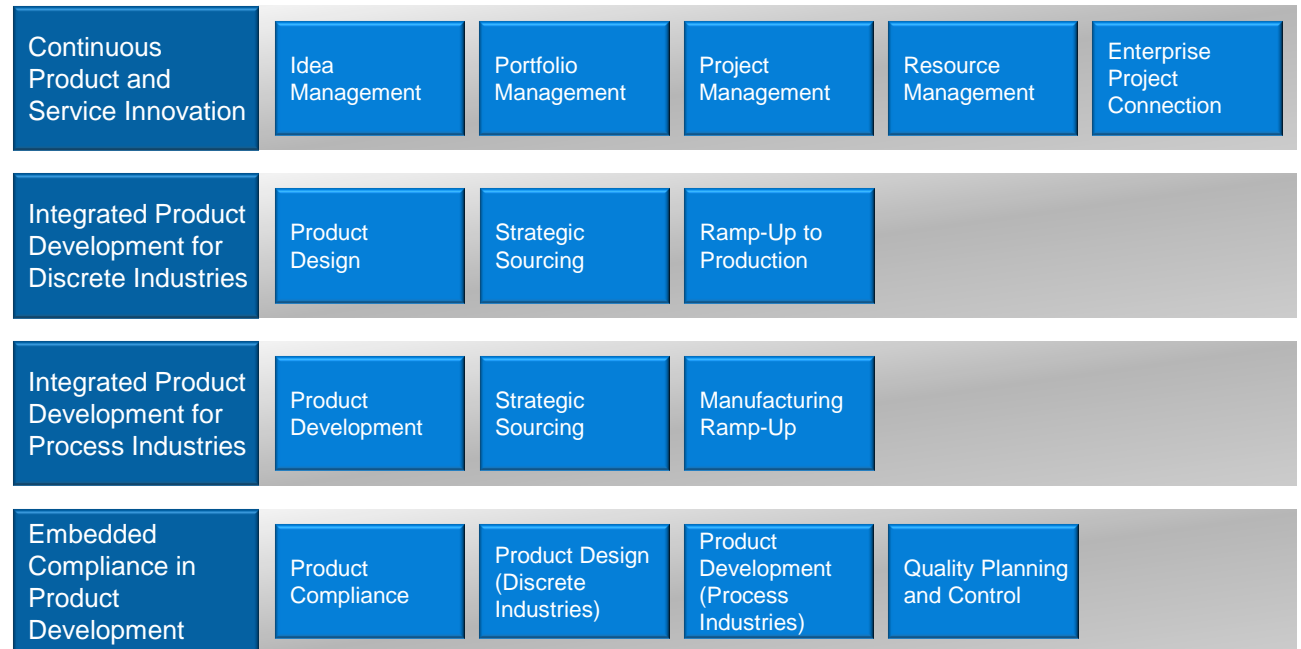
Product Design

Product Development

Quality Planning and Control

Product Innovation

Why SAP?



Why SAP?

Solution Overview

Product Compliance

Product Design

Product Development

Quality Planning and Control

Product Innovation

Why SAP?

SAP software for embedding compliance in product development uses the latest technology innovations and is integrated with the SAP Product Lifecycle Management application, enabling the development of high-quality, compliant products.

A comprehensive compliance solution

SAP solutions connect suppliers and customers to provide accurate and relevant compliance information during new product design, thus reducing the product development cycle time significantly.

Build better products with better quality planning

Quality planning starts early in the product development cycle and enables a continuous improvement approach that drives brand value and customer loyalty.

Seamless experience with breakthrough technology

Whether in the cloud or on premise, SAP software for compliance and quality integrates with SAP Product Lifecycle Management via Web-based user interfaces, providing a rich and intuitive user experience.



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