



Kawasaki Heavy Industries

Integrating design and manufacturing data



Kawasaki Heavy Industries, with Fujitsu, introduced the Smart-K project to streamline the design and manufacturing of site information. Built on SAP® S/4HANA PEO, it is improving collaboration, operational efficiency, and production quality, while promoting work style innovation.

Challenge

Kawasaki Heavy Industries wanted to revamp its core manufacturing processes to strengthen international competitiveness. It wanted to eliminate paper-based processes and integrate manufacturing and design data.

Solution

Fujitsu implemented the Smart-K project, deploying SAP S/4HANA PEO. This ensures all manufacturing processes are integrated in real-time and enables the conversion of production information into data.

Outcomes

- Enables the management of production changes in real-time
- Digitization removes paper documentation and improves operational efficiency
- Raises production quality and accelerates work style innovation

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Akihito Sakai, PhD and Executive Fellow, Aerospace Systems Company, Kawasaki Heavy Industries



35,000+
global employees

Seeking process continuity, from design to manufacturing

Kawasaki Heavy Industries (KHI), one of Japan's leading aircraft manufacturers, has long relied on IT as a critical management resource to compete in the global marketplace. Despite this, many of the complex management tasks that must be recorded and communicated in real-time, were done manually using paper documents.

Therefore, connecting design and workers in the field with paper information in strict compliance with the quality management system (QMS) was a challenge. Furthermore, the change management associated with daily improvement activities at the manufacturing site took considerable time using error-prone paper processes to reflect the changes.

"SAP S/4HANA PEO has the features needed to link all manufacturing data at once," explains PhD Akihito Sakai. "It was possible to collaborate and share changes in real-time through data from the design stage to the final process of manufacturing, and to strictly manage changes."

After evaluating Fujitsu's extensive knowledge and impressive track record in manufacturing, as well as KHI's attitude of challenging the status quo and breaking new ground, SAP S/4HANA PEO was adopted.

Enabling digital integration

The Smart-K project built on SAP S/4HANA was launched by KHI, which aims to create a data-driven management culture by digitally integrating the engineering and supply chain. This ensures that design requirements are transmitted to manufacturing sites quickly and reliably, balancing on-site improvement activities with strict change control, and visualizing the frontlines of each worker by converting work records into data to share the value gained from the data.

Fujitsu systematized each solution and provided an emphasis on the connection of processes, from production preparation and planning to the manufacturing site. By implementing a combination of solutions according to KHI's needs, it could build a DX integration foundation that helps integrate engineering and supply chains.

As familiarity with SAP S/4HANA PEO grows, continuous system optimization and accumulation of know-how will also affect future investment value. Sakai explains, "We believe this initiative is an ongoing project jointly between KHI, Fujitsu, and SAP. The key is how SAP S/4HANA PEO itself can be improved while closely communicating with the development team at SAP headquarters in the future."

Industry:
**Aircraft
manufacturing**

Location:
Japan

Website:
global.kawasaki.com

About the customer

Kawasaki Heavy Industries Ltd. Aerospace Systems is one of Japan's leading aircraft manufacturers. It develops and manufactures aircrafts for the Ministry of Defense and tackles international development and production projects for commercial aircraft companies.

Fundamental work style innovation

Now, highly accurate data from the design stage to the manufacturing site are linked in a timely manner, contributing to improved quality and shorter lead times. By feeding back the insight of the manufacturing site to the design department, it creates new value. At the same time, the ability to rapidly make decisions based on integrated data provides responsiveness and adaptability.

This efficient flow of production information will not only improve product quality but will also act as a driving force in work style innovation. According to Sakai, "It will reduce the burden on field managers, enhance collaboration, and motivate. We believe that SAP S/4HANA PEO will be the foundation for a thorough change in on-site mindset and will encourage work style innovation."

Another major result of Fujitsu's services is the improvement of operational efficiency by going paperless; there is no longer a need to waste time finding the necessary documents.

"If you can use the system with familiar devices such as smartphones and tablets, employees will be even more productive. The company's goal is not only to introduce new systems but to strengthen the management system by conveying these developments to the management layer in real-time," says Sakai.

"SAP S/4HANA PEO is a still-evolving solution," concludes Sakai. "Fujitsu has entered our manufacturing scene deeply, so we look forward to playing an influential role in conveying various functional improvement requests to SAP headquarters in the future."