



Danish Crown ensures stable and future-proof production

Danish Crown replaces the heart of production at their largest slaughterhouse with an advanced MES platform.

Danish Crown's Manufacturing Execution System (MES) is crucial and central to the operation of their slaughterhouses and production lines. However, the food company's existing MES system is approaching 'end-of-life'. With the implementation of a new MES solution, they have now ensured that the slaughterhouse in Horsens is fully digitally equipped for future production.

MES plays a crucial role in ensuring that all incoming orders from the ERP system are correctly processed so that customers receive the expected products on time. It is also MES that ensures traceability and transparency in processes and products, which is particularly vital for a large food company like Danish Crown.

With an existing MES system nearing 'end of life', the decision to implement a new system is not difficult. Danish Crown chooses a 1:1 solution that mirrors the existing functionality into a new system based on a modern platform, albeit with some elements optimized to future-proof the new system. They describe the project as a heart operation, as it is the most comprehensive MES platform in Danish Crown that needs to be replaced. A platform that must be replaced during ongoing production without causing downtime at the factory.

Danish Crown needs an experienced partner to manage the business-critical project and guide the MES provider to ensure that Danish Crown's needs and requirements for the system are met.

Read more about how Danish Crown and kaastrup|andersen, in collaboration with the supplier, ensure a successful implementation of a future-proof MES platform.



We have really appreciated the collaboration with kaastrup|andersen during the implementation of our new MES solution. Their professionalism and project management were top-notch and crucial for the success of this "IT heart operation".

kaastrup|andersen understood our need to change our MES during operation. They succeeded in doing so, while also managing to create calmness around the very challenging project. We have greatly appreciated their professional approach and the dedication they have shown to ensure that the process was as smooth as possible.



Danish Crown

Thomas Page Pedersen
Senior Director, Associated Domain Lead
Danish Crown

Challenge

Danish Crown's existing MES platform has ensured for 20 years that the planned orders in the ERP system can be sent to the factory, to then be finely planned, produced, documented, and completed. With an 'end of life' system, Danish Crown is faced with the critical challenge: to ensure future production.

To ensure the right new MES solution for Danish Crown, it is crucial to create an overview of the functionality of the existing MES as well as the specific tasks that the system helps to solve. The first solution to tackle that challenge is already clear at project start in the form of a pre-analysis, prepared by the MES provider, showing that the system delivers top performance in planning, production, traceability, and logistics. Therefore, the decision for a 1:1 solution is made.

Danish Crown also wants both the quality and functionality of the new system to be in place from the first day of operation - without errors or production stops. Therefore, the system undergoes thorough testing with the MES provider, including live testing on weekends outside normal production hours in all significant areas of the factory, which handles 18,000 pigs daily.

Solution

Business goals, customer requirements, and employee workflows are closely linked and all play significant roles in the design and development of a new MES. The initial pre-analysis is a good starting point, but it quickly becomes clear that further in-depth investigations of workflows and functionality are necessary for kaastrup|andersen to safely steer the project to completion for Danish Crown.

kaastrup|andersen provides a team with strong competencies in project management of major IT solutions, a fundamental understanding of the task that MES performs, and deep technical understanding, ensuring good advice in connection with implementation. The team begins to build the necessary knowledge, which involves closer studies of the various production steps, dialogue with employees, and analysis of cross-cutting processes and dependencies. The detailed information forms the basis for the close collaboration between Danish Crown, kaastrup|andersen, and the supplier.

The newly developed MES undergoes thorough testing by kaastrup|andersen to ensure software maturity before being put into operation. The testing phase consists of thorough 'unit tests' (pre-FAT tests) to ensure the functionality of the individual units and a more comprehensive 'Factory Acceptance Test' (FAT) to guarantee the robustness, performance, processes, and functionality of the system as a whole, covering the usage scenarios that employees face in their daily work.

The project also focuses on improving the functionality of the new system in three areas:

- **Order regeneration templates:** Employees responsible for order planning design the new templates, which will form the basis for over 80% of production in the future. The use of templates reduces the time spent creating production basis and creates overview in the planning process.
- **Locking of the system:** In the previous MES, one user could lock an element, such as a process order, which meant that not only the specific order but the entire production area was locked for all other users. This created significant challenges in daily work. In the new solution, individual orders can be locked without affecting other elements or areas, allowing other employees to continue their work without hindrance.
- **Better options for customizing the system:** Previously, Danish Crown had to contact the MES provider even for minor changes to the system. With the new system, Danish Crown gains greater control and will be able to customize their MES to support any new production lines, additional units, and factories. The project also includes an upgrade of both the underlying technology and the user interface to make the system modern in all aspects

In connection with the implementation of the new MES, kaastrup|andersen provides information about the new system, training for the affected employees, and documentation of the system and its processes.

Project management is handled by kaastrup|andersen using an agile kanban setup- a hybrid project management approach that balances between a traditional and agile approach. This setup enables constant adaptation and improvement of processes. In addition, strong visual tools are used to create an overview, and tasks are structured and managed in a task-oriented form using the Microsoft Azure DevOps tool.

Result

Danish Crown has now implemented a new and improved MES platform that preserves the existing functionality while also enhancing functionality in several areas. The increased functionality makes the system more flexible and supports more efficient production processes. Particularly important is the increased flexibility, which allows Danish Crown to make changes to the system, providing business advantages in a dynamic market that requires ongoing adjustments.

The new solution also eliminates person-critical dependencies regarding support, strengthening the reliability and operational stability of the system.

The project setup, with close collaboration between internal employees at Danish Crown, consultants, and project managers from kaastrup|andersen, as well as the external MES provider, ensures a successful replacement of the critical MES. Danish Crown now has a solid and future-proof MES platform that can be further developed as new needs arise.

Would you like to know more?

kaastrup|andersen is ready to help you improve your existing MES or implement a complete MES solution. We have extensive experience with production projects, IT, and MES, and always take an objective approach to each company's situation and industry.

We can assist you with strategic considerations, system selection, needs assessment, project management, and implementation control.

Contact Simon for a conversation about your ideas.

On kaastrupandersen.dk/en, you can find all our cases, which can be filtered by business area.



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