

Case Study

Software Solutions



The Diligent Dairy: how end-to-end printing is helping Hochland Española, S.A.

SUMMARY

Hitachi's end-to-end solution brings better coding, marking and labelling accuracy and faster production times to Hochland's factory operations in Spain, where it makes 30 different types of dairy product. Less reliance on skilled manual processes means fewer wasted hours and a reduced risk of errors.

Hochland

As a family-run German dairy that started business in 1927, Hochland is now a global business with almost 5000 employees, 11 factories and revenue of € 1.49 billion in 2018 alone.

Hochland Española, S.A. is the Spanish arm of the Hochland group. Hochland Española mainly manufactures processed cheese slices and shredded cheese for pizza and pasta. The plant is situated in Viladecans near Barcelona. The Spanish subsidiary was founded in 1981 together with the Spanish sales partner Grupo TGT.

After reviewing its printing operations and meeting with the Hitachi coding and marking team, the company felt its Spanish operation was a good candidate to benefit from Hitachi's end-to-end coding and marking expertise.

“We want to be **factory 4.0 compliant** in all parts of our businesses, and **printing** was one of the **last pieces of the puzzle.**”

Xavier Puig Martínez, Hochland Española S.A.

“We used to have a legacy printing system in our factories but talking with Hitachi helped us find a better approach. We can see this end-to-end printing system working well in our other facilities.”



CUSTOMER
Hochland

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CHALLENGE

Across all of its factories, Hochland codes, marks and labels 10 dairy products each day. With work orders changing up to 15 times per day, a lot of manual effort is required to ensure the right data goes on the right unit. The company's challenge is to code its products efficiently and accurately, to reduce the risks of human error and the costs associated with incorrect coding.



In dairy, as with many other industries, the traditional model is to use a Manufacturing Execution System (MES) to handle work orders in bulk, along with standalone inkjet printers (IJP). Paper based instructions would be produced for a company's production lines to use, and operators on those production lines would manually input the work order data into the printers.

“Hochland labels 10 units of dairy products each day. With work orders a lot of manual effort is required to ensure the right data goes on the right unit.”

Because, traditionally, MES did not communicate directly with printing devices, there was a significant risk of incorrect coding and marking owing to the manual work necessary in entering the data to be printed.



PRODUCT
Inkjet Printer

SOLUTION

Hitachi's expert engineering team met with Hochland to discuss and assess the right software solution for their factory in Barcelona. It's common for businesses to opt for a hardware-only option of IJPs and laser devices, but the Hitachi team showed Hochland the value of implementing a complete end-to-end solution, to connect and integrate the printers with MES so that workers would no longer need to enter data manually from MES to the printers.

Hitachi's software component gave Hochland an end-to-end system that met their requirements in these key areas:

- **Ease of use:** Best-in-industry message/label designer offering modern, intuitive UI. Works with many device types and multiple data sources.
- **Workflow compatibility:** Configurable integration and application modules allow support for connecting with most ERP, MES, PLM and other third-party systems. Data can be extracted and manipulated, allowing for flexible business logic implementation.
- **Optimisation of business:** Businesses don't have the time or expertise to apply technical optimisations to their processes. Through a holistic approach to processes, Hitachi helped Hochland streamline its operation.

Hochland uses a third-party platform, with a configuration built using Hitachi application modules and running in the background as a Windows Service.

"We can now initialise our printers at the same time we initialise MES. The process is simpler which means it's harder for our products to be wrongly coded or marked. That gives us confidence that every Hochland product leaves the factory marked correctly."

"Every Hochland product leaves the factory the right way."

Production Manager

While primary printing devices have often been standalone, this end-to-end solution brings together all of Hitachi's best practice experience, which enables customers to implement Factory 4.0 standards and guidelines. The solution brings clear benefits for the productivity, continuity and reputation of businesses such as Hochland:

- **Productivity:** There is less complex work on the shopfloor and therefore training time is minimised. Factories have a lower inventory overhead, there is less unplanned downtime and fewer shipping delays.
- **Continuity:** Support and maintainability becomes easier when using a single software and hardware system. Clients can lean on Hitachi's expert engineers around the world. Through our consultancy work, we get to learn about the topics that matter to dairy producers and to all of the industries we serve.

RESULTS

Hochland started using Hitachi's end-to-end solution in November 2018. Hitachi is now in discussion about rolling out the end-to-end solution across other Hochland factories. This confirms the positive early feedback about the delivery in Barcelona, and it shows Hochland's commitment to standardisation and optimisation across the business.

While it may be too soon to quantify the full range of benefits that the solution has brought to Hochland Barcelona, we can estimate the improved rates of production and reduced rates of inaccurate coding and marking are likely to mean this project will achieve ROI within 1 year.

The solution is reusable across many different industries. It is highly configurable and capable of handling data from third-party systems. As an extendable and scalable solution, end-to-end printing allows businesses to think beyond primary printing on units, to printing on container boxes and more. This implementation has shown how Hitachi is creating business value and supporting companies on their way to intelligent (smart) manufacturing. Our end-to-end solution allows businesses to move standalone devices to an integrated platform as the progress of Factory 4.0 continues.

“Before we made the change to the new Hitachi system, we were taking a lot of time to enter data manually on the production line. This was a waste of our resources and put us at risk of natural human error.”

“The **new automated process** means we can have **much greater confidence** in the way our units are labelled.”

Xavier Puig Martínez, Hochland Española S.A.



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