

Expectations exceeded at Trondhjems Eskefabrikk (TE) - a leading packaging manufacturer in Norway.



Tore Brekke Olsen is third generation in the owner family and is convinced his traditional boxboard company with CodeIT Enterprise has a solid platform for further growth.

## Payback from day one with CodeIT Enterprise

The idea of having a digital production support system started several years ago, well before Trondhjems Eskefabrikk (TE) took its big leap last year. Doing it the way they did in the end, with CodeIT Enterprise, meant they could complete the project in such a way that all expectations were met, and they started to get payback from day one.

Text: Henning Ivarson. Photo: Egil Smalberget

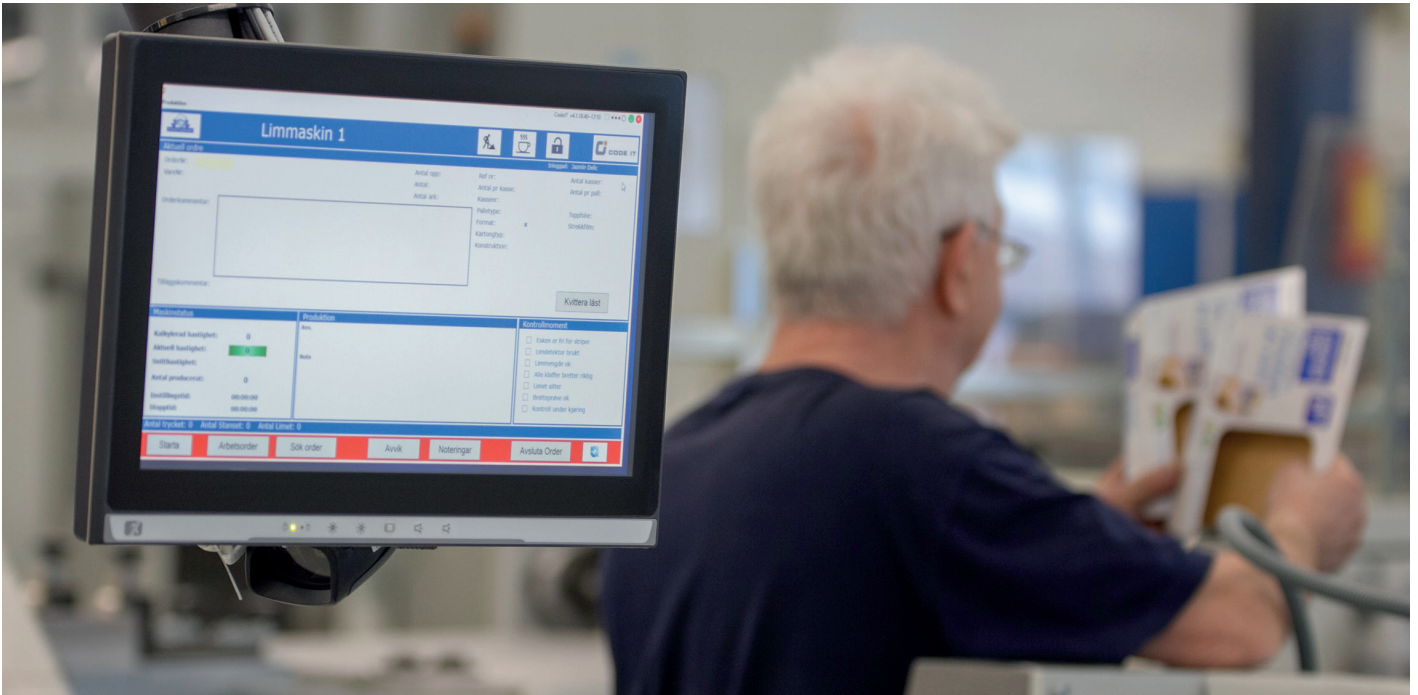
### Can see new gains every day.

CEO Tore Brekke Olsen and Quality Manager Steinar Jonassen at TE don't hide the fact that last year's major digitalization project was extensive, with integration between the CodeIT Enterprise Digital Control System and the company's IT systems, as well as the installation of PLC-controlled sensors in all the production equipment. At

the same time, they see more clearly than ever that the decision was both correct and forward-looking. "Our plans to establish digital production support had matured over several years, so we had evolved a thorough requirement specification. The result was a modern digital infrastructure embracing all areas of the business, from raw material warehousing to finished delivery, with Co-

deIT Enterprise as the hub of the system. Of course, it required significant investments in both time and money, but we see gains every day, in terms of higher quality at all stages of production, better information flow and more accurate reports and figures for our cost-accounting. Furthermore, the system helps us to quickly capture deviations and improvement potential in production. All in

## Easier start-up. Fewer errors.



Robust industrial touch-screen PCs display all necessary operator information, here at a gluing station.

all, it is both a production support system and a management tool to help ensure continuous improvement,” they both say.

### Paperless printing.

Printing is never paperless, it's integral to the concept of printing. And when you look at the raw material store at TE, there's no doubt that paper and cardboard play a crucial role for the company. The paper-based order form, on the other hand, has now been made redundant, even though TE have chosen to retain it in some instances for the time being. Last year the company completed the implementation a new digital control system, where CodeIT, as the supplier, built a customized system for real-time integration between the order system (IBM iSeries) and the time registration system, and supplied applications and a database for production follow-up and inventory management. In parallel with this, CodeIT fitted PLC-controlled sensors in all the production equipment and integrated these sensors directly with the CodeIT database. Now everything is in place, it's no exaggeration to say that a new nerve system has been created in the company.

“In the past, we'd catch deviations well after the event, whereas now there's only a five-second delay from an incident occurring to it being flashed up on a big screen in my office. It's like having landed on another planet,” says a smiling CEO at what is Norway's oldest folding boxboard manufacturer.

“For many years, we have had turnover per employee at one of the highest levels in this industry, even if you compare internationally. This investment will help us maintain this position and go for new growth”, emphasizes the CEO.

### Easier start-up. Fewer errors.

At each of the company's 7 production lines, the operator has access to order information through CodeIT Enterprise. It is presented on a robust industrial PC with touch-sensitive display and external keyboard. The information is tailored to each operator space, with information about print, material selection, calculated start-up and production times, average machine speed, and other essential parameters. Any deviations and what caused them can be immediately flagged by the operator, including when they occur. Furthermore, it is easy



The raw materials store is huge, with a thousand pallet places for different types of paper and cardboard. Raw materials management is now done directly in CodeIT Enterprise.

## With CodeIT it's like having landed on another planet

to communicate directly with production management from these screens. Quality Manager Steinar Jonassen has three displays at his workplace, giving him a continuous overview of how production is going, and if needed he can easily select reports based on filters he chooses.

“The information flow is at a new level, and the quality of the information is at a higher level than ever before,” he notes. “In fact, it has been easier than we expected to get the staff to use the system in the desired way, and the feedback is that the new production support system makes operators more aware of the time spent, and the costs of each job,

### Trondhjems Eskefabrikk (TE)

First established in the 1930's as “Trondhjems Eske- og Mappesfabrikk”, it changed its name to “Trondhjems Eskefabrikk” in 1980, when the company moved to modern production facilities at Tiller outside Trondheim, the third largest city in Norway. Investments over recent years in modern production equipment have turned the company into one of Scandinavia's leading packaging manufacturers, the food industry being the largest single customer group.

### With CodeIT the information flow is at a new level

“says the Quality Control Manager. Nor is the CEO in any doubt that the investment in the digital control system will help secure new growth. “We have extensive expansion plans for both our raw materials and our finished goods warehouses. The latest stock count from the raw material warehouse showed a deviation of half a pallet, and in a warehouse with around a thousand pallet places, this accuracy is at a completely new level for us. Our raw material stock ties up a lot of capital. Therefore, accuracy in inventory management affects many areas such as cost-accounting, preparing quotes and fulfillment,” says CEO Tore Brekke Olsen, before pushing his glasses up on his forehead, looking us straight in the eye and, in his usual informal style, divulging his requirement specification.

“We are very pleased with the collaboration with CodeIT. They showed early on that they have a technical solution that could communicate with both the systems and machines we have and that they have the necessary expertise needed to solve this in the way we wanted, in line with our

### CodeIT Enterprise

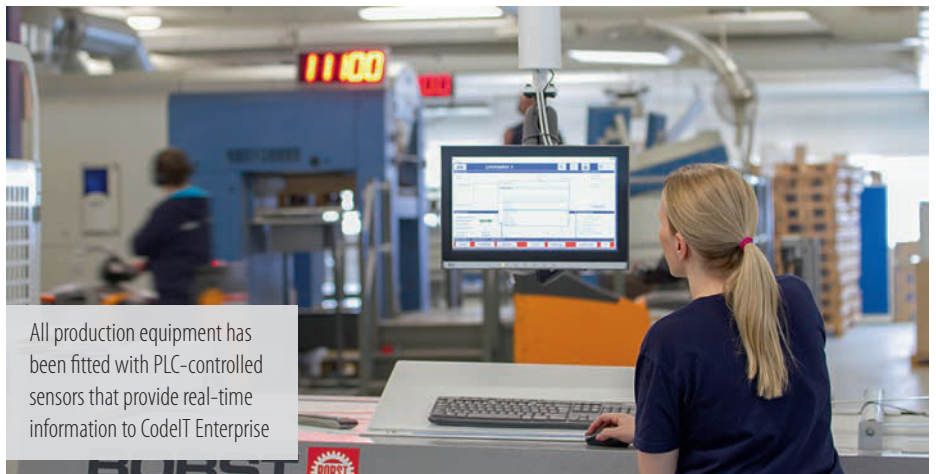
A digital toolbox for building and maintaining industrial applications. Customizable to meet any customer's needs, with integration to suit different industries and order systems, sensors, production equipment, etc. Graphical user interface that can be used on industrial PCs in production environments and provide reports and overviews in real time for management. Claes Park heads the CodeIT development team and is the main architect behind the solution at TE.



“The quality of the information is at a higher level than ever before,” notes Quality Manager Steinar Jonassen (left) as he and one of the company's printers install a punch in one of the presses.

schedule. In fact, we rarely experience that developers, in this case CodeIT's system chief Claes Park, demonstrate such a solid understanding of how a manufacturing company like ours operates on a day to day basis. Several times he came up with workable and creative suggestions that we had

not thought of ourselves. Our conclusion is that we now have a production support system and a partner that can be with us on our journey forward, where it will be critical to ensure high turnover per employee,” concludes the CEO, before hurrying back to the production area.



All production equipment has been fitted with PLC-controlled sensors that provide real-time information to CodeIT Enterprise



Digital order forms provide better conditions for operators and a better overview for management