

Intersnack Group

Intelligent Snack Production with Aptean Process Manufacturing OEE



Industry

Food & Beverage

Challenges

- » Lacking real-time visibility of key figures
- » Time-consuming data entry
- » Need for rapid response capabilities in the event of faults

Benefits

- » 5-10% increase in efficiency
- » Improved integration of production staff across operations
- » Real-time collection of key production figures

The Intersnack Group GmbH & Co. KG (Intersnack), one of Europe's leading speciality snack manufacturers, uses Aptean Process Manufacturing OEE to seamlessly monitor their production and processes and to review their key production figures in real-time. This allows the company to continually improve its production processes, making them more cost effective.

Crisp, crunchy and fresh: these are the words football star Bastian Schweinsteiger uses in a TV ad to promote the delicious potato crisps of market leader funnyfrisch. Spicy snack specialities produced by funnyfrisch, Chio, ültje, goldfischli or POM-BÄR have been delighting millions of people for decades.

What many are unaware of is that these products are among the brands owned by the Düsseldorf-based Intersnack Group. However, competition is fierce. This is why Intersnack's management are making changes on several fronts to ensure that the company can continue to grow sustainably and profitably in the future.

Implementation of Change to Improve Productivity

The business strategy includes continually improving operations in all divisions by means of tried and tested management methods such as Lean Six Sigma. Especially in production, the responsible managers aim to increase productivity, OEE (overall equipment effectiveness) and to reduce costs in the long term by means of more efficient operations and an optimized use of plant facilities.



“We take decisions on the basis of hard facts and not gut feelings. This also tangibly increases the work-force’s acceptance of the improvement measures.”

Ina Wegener, Director Operational Excellence at Intersnack Group Gmbh & Co. KG

Reviewing Key Production Figures in Real-Time

“For our optimisation processes, we need accurate, real-time key figures on the quantities of finished goods, yields and rejects, on OEE or quality feedback from production,” explains Ina Wegener, Director Operational Excellence at Intersnack. This is why the snack manufacturer has introduced Apteian’s integrated manufacturing execution system (Apteian Process Manufacturing OEE) step-by-step since 2009. Following an initial test installation in the Netherlands in 2009, the decision was taken to implement the software throughout all plants in Europe, namely in Germany, the Netherlands, Hungary, France, Poland, Austria, United Kingdom, Romania, Ireland and the Czech Republic.

The IT solution has been seamlessly integrated with the production and packaging lines in the plants. Key production figures, including daily key figures, produced volumes, downtimes or data on OEE are now automatically recorded and processed in realtime. The causes of faults are entered on touchscreens by employees. Time-consuming manual data entry from paper documents, internally developed databases and Excel tables is a thing of the past.

In addition to the software implementation, Intersnack was very keen to involve employees during the introduction of Apteian Process Manufacturing OEE. The philosophy behind Apteian Process Manufacturing OEE goes beyond mere software utilization. Employees receive intensive training. Ultimately, they are supposed to understand the strategic benefit offered by the system and their own role in the improvement processes.

In cooperation with the Apteian team, a considerable amount of time was spent ensuring that the harvested data could be used easily and efficiently at all company levels.

Efficiency up 10% in Production

Ranging from machine operators to the factory manager and the senior management team, all users can access up-to-date key performance indicators (KPIs) from production at any time. Production times, yields and rejects, defects or net machinery cycle time figures are available in real-time and not several hours or days later.

“As the data is presented in real-time, we are able to selectively improve production processes in real-time and ensure optimal utilization of plant facilities and manpower,” stresses Jan van den Broek, Managing Director of Intersnack Knabber-Gebäck GmbH & Co. KG. “This enables us to increase efficiency in each plant by between five and ten percent, which is directly reflected in lower production costs.”



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More Time for Core Tasks

All key figures and production data recorded in Aptean Process Manufacturing OEE are processed and presented graphically on a web-based interface in a clearly arranged and user-friendly way. Machine operators are able to retrieve all relevant key figures at control terminals quickly and conveniently at the press of a button. The causes of defects or faults are recorded directly in the MES solution. In addition, regular checks (approx. every 2-3 hours) are embedded directly in the work flows.

As time-consuming and error-prone manual recording no longer takes place at the end of the shift, the operating staff can dedicate more of their time to core tasks, such as optimizing the cycle times of the plant facilities. In-plant paper consumption has also declined noticeably.

Precise Measurement of Improvements

At the same time, the IT-supported processes create a uniform flow of information from the shop floor to the plant and company management. Traffic light charts clearly and immediately show which plants are operating on or above target.

Those responsible can inform themselves in detail about the causes of faults and downtimes or excessively high set-up and cleaning times with only a few mouse clicks.

Even the regular quality controls at the production facilities are now seamlessly documented in Apteian OEE via alerts that remind the machine operators to perform the required checks. The scheduled adherence to deadlines can be monitored.

Facts-Based Decision Making

Plant and company managers can now perform detailed evaluations of the KPIs recorded using Apteian Process Manufacturing OEE by means of powerful analysis tools, thereby creating valid and reliable bases for targeted measures. “We take decisions on the basis of hard facts and not gut feelings. This also tangibly increases the workforce’s acceptance of the improvement measures,” adds Ina Wegener. The analysis results are available in just a few mouse clicks. They are clearly displayed graphically in a dashboard interface and can be processed step-by-step by drill down.

For example, up-to-date analyses of key figures enabled Intersnack’s management to comprehend accurately that equipment efficiency increased in the first three years of using the system, not least due to the reductions in set-up times and unscheduled downtimes facilitated by Apteian. At the same time, they are shown how efficiency can be increased even further by means of shorter cleaning times.



“With the aid of Apteian Process Manufacturing OEE we have already been able to achieve a great deal, making production more transparent and efficient.”

Jan van den Broek, Managing Director at Intersnack
Knabber-Gebäck GmbH & Co. KG

Linking the Shop Floor and ERP Systems

The introduction of Apteian Process Manufacturing OEE was preceded by an extensive selection procedure. “The solution simply satisfied our requirements best, as it includes functions specifically developed for the food industry,” says Jan van den Broek in justification of the decision. “The proven industry and process expertise of the experts at Apteian also convinced us.” Another important criterion for Intersnack was the need to easily link Apteian Process Manufacturing OEE with the various ERP systems they use across Europe, including Apteian’s ERP. Apteian provided standard interfaces to easily link the systems together.

Rollout in 26 Plants to Date

In close cooperation and using tried and tested methods, the project partners have gradually implemented the MES solution at 26 plants. The in-house project team learned something new with each rollout, meaning that they are as a result able to complete many tasks autonomously.

According to Ina Wegener, the communication between the project partners was “initially slightly bumpy,” but the advisors at Apteian understood Intersnack’s concerns and requirements perfectly. To begin with, individual country versions were not available for all languages, such as in Hungarian. This was a sticking point, as the machine operators are only able to operate the solution in their respective language.

However, Apteian rectified this need promptly. This has made a major contribution to the high level of acceptance of the Process Manufacturing OEE solution among users and hence the success of the project.



Achieving Great Results with Aptean

Jan van den Broek sums the project up positively: “With the aid of Aptean Process Manufacturing OEE, we have already been able to achieve a great deal, making production more transparent and efficient.”

Intersnack also aims to use the statistical process control functions to record, control and reduce the waste per machine and plant. The use of the maintenance module and its link with the Intersnack maintenance solution will help optimize maintenance processes in the future.

Moreover, preparations are underway for a central dashboard solution that merges key production figures, performance data and analyses from all European plants in aggregated form on a single user interface. In the future, this will give Intersnack’s management an up-to-date overview of the overall situation at any time, enabling it to control improvement processes even more accurately and across multiple plants.



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