



Dairy Producer Increases OEE and Throughput with Real-Time Performance Management



“When you start measuring things in real time and displaying them for everybody to see, you get a natural boost in productivity due to friendly competition. In addition, you take the subjectivity out of how you manage your business and processes.”

- Joe Brien,
Six Sigma Process Technologist, Glanbia

OEE
increased **10%**

throughput increased
124 tons per week

CHALLENGE

Improve performance to become the lowest-cost, highest-quality producer of dairy products in Ireland.

SOLUTION

AspenTech Production Management & Execution (PM&E) powers a new performance management solution for real-time visibility and analysis of operational performance.

BENEFITS

- Improved overall equipment effectiveness (OEE) by 10 percent in just six weeks
- Increased product yields: 0.4 percent increase in fat (63 tons), 1.4 percent increase in protein (146 tons)
- Reduced energy consumption by 8 percent
- Reduced the time to create mass balance report by 99 percent

Glanbia Food Ingredients implements AspenTech PM&E solution to increase annual savings and boost product yield while reducing energy consumption.

Headquartered in Kilkenny, Ireland, Glanbia plc is a global ingredients and nutrition group. Glanbia Food Ingredients' facility in Ireland processes about 1.4 billion liters of milk annually into butter, cheese, milk proteins, and whey derivatives.

Anticipated increases in milk supply meant that the plant would not meet processing demand in the near future, so Glanbia sought ways to improve production throughput in order to meet new expectations.

Working with Glanbia, the AspenTech solutions partner Orbis leveraged the AspenTech PM&E application to develop a performance management solution that collects data in real time and transforms it into highly visible, actionable information.

Market Opportunity Unfulfilled

Glanbia's management team challenged the Ballyragget, Ireland, facility to capture more of the available market opportunity without new capital expenditures. To do so, they needed to transform themselves into a highperformance facility to achieve "predictable excellence."

To meet this objective, the team had to overcome several challenges. Management decisions were based primarily on anecdotal information. Whenever a problem arose, managers would dig through log sheets and spreadsheets and talk to operators and engineers in an effort to determine the root cause of the problem. Each area had its own way of capturing the data and calculating and presenting performance metrics, which led to inconsistent and unreliable information.

This lack of credible information resulted in less-than-optimal operating decisions. Improvement opportunities went unnoticed or were never acted upon because no one could determine the root cause of the problem.





Real-Time Visibility Leads to Fact-Based Decision Making

Orbis, an AspenTech solution partner, worked with Glanbia to install a performance management solution that collects data in real time and transforms it into highly visible information. The solution, powered by AspenTech's PM&E application, provides value across the organization. Operators can visualize the impact of their actions in real-time. Process engineers can analyze events and trends, which helps continuously improve the process and rapidly resolve problems. Management is equipped to make fact-based decisions that optimize production operations.

The team soon discovered that as acceptance of the system increased, people found more ways to use the information. Because of the unique design of the solution, users can easily create their own reports and analyses to help them improve the performance of their respective areas and to share with others in the organization.

Future Improvement Projects Identified

Glanbia will continue its site-wide rollout of the OEE modules. A number of projects focused on yield improvement, energy reduction, cost of quality and predictive quality-control measures have been identified simply by looking at and trending the relationships between process data and key performance indicators (KPIs) and correlating them to plant performance.

Real-time visibility and analysis of data provides the information that operational personnel need to make informed business decisions. The result is significant improvements in performance and worker productivity, saving millions of Euros.

AspenTech is a leading software supplier for optimizing asset performance. Our products thrive in complex, industrial environments where it is critical to optimize the asset design, operation and maintenance lifecycle. AspenTech uniquely combines decades of process modeling expertise with machine learning. Our purpose-built software platform automates knowledge work and builds sustainable competitive advantage by delivering high returns over the entire asset lifecycle. As a result, companies in capital-intensive industries can maximize uptime and push the limits of performance, running their assets faster, safer, longer and greener.

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