

“[With Celsis’ rapid detection system] we reduced our product release time by four days.”

— Dhr Johan Roeygens, QC Manager, FrieslandCampina

## SUMMARY

FrieslandCampina virtually doubled its production capacity, at its Aalter, Belgian site, but was still able to keep up with its QC testing requirements using its Celsis rapid detection systems.



## How Celsis Helps FrieslandCampina Keep Pace with its Expanding Business

### THE CHALLENGE

In recent years, FrieslandCampina’s Aalter, Belgium site has undergone a large-scale investment project, nearly doubling its production capacity and making it FrieslandCampina’s flagship site for UHT production in Europe. This state-of-the-art factory now manufactures dairy products for the Belgian market as well as for France, the UK, Germany and The Netherlands, and currently produces 400 million litres of milk each year.

This significant increase in output means increased demands on its QC laboratory to clear product for release to market. Find out how FrieslandCampina QC have kept pace with the expanded manufacturing capacity and testing requirements without missing a step, thanks to their partnership with Celsis.

### HISTORY

International dairy and beverage manufacturer FrieslandCampina began using Celsis rapid detection systems at their Aalter site in 1996. According to Dhr Johan Roeygens, QC Manager, the initial driver in adopting a rapid detection method was “to decrease the time that finished products were held prior to release”.

Every day in which products are held requires an ongoing commitment of working capital. Funds are tied up in inventory as well as warehouse space, and the longer hold times increase the amount of safety stock required. Getting products out the door faster would reduce operating cycle costs and also enable the company to be more responsive to customers.

At the same time, the quality assurance manager at the Aalter site wanted to find a method that could ensure the sterility level of the production lines and detect potential contamination events earlier.



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“A number of departments were involved in the decision-making process, and each clearly saw the benefits”, said Dhr Roeygens. “The R&D department led the change, the financial department calculated the benefit, and the result had far-reaching, positive consequences for our logistics department”.

### INITIAL SOLUTION

The Aalter location initially installed a Celsis rapid detection instrument with a Celsis AutoSampler in the late 1990s. In 2004, a new version of the AutoSampler was installed and the instrument was updated to the Celsis Innovate™. The following year, a second Innovate instrument was installed to keep up with a rise in manufacturing output.

“We selected the Celsis system, as no other company could assure a quicker method with the same reliability”, said Dhr Roeygens. The Celsis system features ATP bioluminescence technology, the industry standard for screening dairy products due to its speed and clear, absence/presence results. ATP testing is equivalent to traditional microbiological methods, but eliminates the need for plate incubation, allowing you to release product days faster.

The Celsis system outperforms other ATP-based systems due to a number of innovative features including on-board reagent cooling to ensure the stability of the enzymes, an easy-to-maintain instrument platform, intuitive software, and a unique injector system for delivering precise quantities of reagents at appropriate intervals.

### INITIAL RESULTS

Using Celsis enabled FrieslandCampina to reduce release time by four days, shortening the production cycle and unlocking huge operational savings. In addition to releasing stock sooner, the Celsis systems also “enable the quality department to inform the production manager faster when there is a production problem; this can limit the loss at an earlier stage”, explained Dhr Roeygens.

### CURRENT SITUATION

FrieslandCampina use their Celsis systems to screen for microbial contamination in 95% of their UHT and flavoured milks produced at the Aalter site, including milk brands such as Joyvalle, Campina, Friesche Vlag, Domo, Nutricia, Yazoo and Cécémel, plus some private-label milks. These products are packaged in different designs and

sizes—from multi-litre packages to single-serving cups of coffee creamer.

Following the company’s investment in additional UHT production capacity at Aalter, and the consolidation of other product lines to this site, the need for increased testing capacity was significant. To keep up with manufacturing demand, FrieslandCampina’s quality team would need to conduct approximately 1,500 microbial tests per day.

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### THE CELSIS APPROACH

Given the robustness of the Celsis system, and its high-capacity throughput, the QC department was able to accommodate the increased testing volume. A higher-capacity version of the Celsis AutoSampler was installed in 2011 to update the 2004 version the company had been using. Similarly, FrieslandCampina upgraded the Innovate™ im software on its two existing instruments to take advantage of newer features developed by Celsis, including bar code integration.

### BENEFITS REALISED

The Celsis systems continue to be of huge benefit to FrieslandCampina and have enabled the company to “complete their analysis in two shifts with the same equipment” according to Dhr Roeygens. Without their robust Celsis systems, FrieslandCampina would have been challenged to keep up with manufacturing demand.

Ease-of-use of the Celsis system is especially important to Dhr Roeygens, as they “are able to have a factory worker monitor the testing instead of a laboratory technician”, freeing up valuable time for other quality assurance projects.

Celsis’ commitment to the UHT dairy industry is evidenced by how its rapid detection systems are constantly evolving to meet the needs of the industry. As a long-standing Celsis customer, FrieslandCampina has experienced the benefits of this continual development with the Celsis AutoSampler, instruments and software.



The Celsis Innovate.im software update enables sample data from multiple instruments to be saved to a single database on the company's secure network, helping to simplify regulatory compliance. The updated software allows users to securely view and access testing data on-site or remotely, and to generate reports from networked workstations with a stand-alone version of the software.

FrieslandCampina also incorporated use of a bar code reader at their Aalter site. According to Dhr Roeygens, "bar coding gives us a full guarantee for trace and tracking. It is also used to automatically detect the right configuration, based on the product ID. One goal of the company is to connect the Celsis software with their SAP system later this year. This will enable logistics to see production batches cleared by QC in real time.

### CONCLUSION

The Celsis systems at FrieslandCampina offer significant economic value by reducing the time it takes to test and release dairy products to market. FrieslandCampina was able to cut four days of operating cycle costs from every run of the wide range of products it tests with Celsis, and have earlier notice of potential quality problems before they travel through the plant.

Simply by running a second shift in QC, to match the longer manufacturing day, the rugged and reliable Celsis system was able to accommodate the significantly increased testing demand at the Aalter site.

FrieslandCampina is one of the top dairy companies in Europe, yet dairy companies of all sizes, in more than 65 countries, have placed their trust in Celsis as their supplier of reliable and robust rapid detection systems.

Celsis has a dedicated global support team ready to assist customers so they can maintain maximum testing uptime, whether it is for one shift or for testing 24 hours a day, 7 days a week. For Dhr Roeygens, "the support from Celsis is very important. We consider it a kind of business security". He also appreciates the benefits of using the Celsis rapid detection method. "Our collaboration is very good", said Dhr Roeygens, and he recommends that anyone who has not yet adopted a rapid method, "start immediately"!

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**For more information on the Celsis system  
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