

WORLD FIRST: Standing Ovation and Bel scale up industrial production of milk proteins from dairy co-products — a circular revolution for the food industry

A major step toward a circular economy in the dairy industry

- Standing Ovation, a French biotech pioneer and Bel group announce a breakthrough: the **first industrial-scale production of caseins obtained through precision fermentation of dairy serums**
- This achievement validates the process at full industrial scale and opens the door to a circular, sustainable, and sovereign model for the dairy sector.

A precision fermentation process validated at industrial scale

Following an optimization phase, the initial industrial production cycles have demonstrated the effectiveness of Standing Ovation's patented process at scale. This technology transforms acid whey from cheese production into high-quality caseins, offering a sustainable alternative to traditional dairy supply chains.

The results validate the performance of the process at industrial scale and confirm the viability of a closed-loop valorization model.

A circular economy model supporting food sovereignty

This industrial validation marks a major step toward a circular economy in the agri-food sector. By valorizing co-products from cheese production, it not only reduces waste but also strengthens food sovereignty by leveraging available national resources.

The partnership between Bel and Standing Ovation is built on a responsible and sustainable approach to dairy production:

- **Waste reduction:** transforming a by-product into a valuable resource.
- **Optimization of production flows:** integrating serums into an innovative valorization circuit.
- **Commitment to sustainability:** a technology that reduces the carbon footprint and improves resource efficiency.

A concrete solution for decarbonizing the agri-food industry

An independent Life Cycle Assessment (LCA), certified ISO 14040/14044, shows that Standing Ovation's patented process reduces CO₂ emissions by 74%, land use by 99%, and water consumption by 68%, compared to animal caseins.

These environmental performances position Standing Ovation's technology as a strategic lever for manufacturers committed to carbon neutrality.

A development aligned with the Bel group's strategy

This collaboration with Standing Ovation is fully aligned with Bel Group's vision to achieve zero destruction of edible products and 100% valorization of food waste when destruction is unavoidable. By integrating innovative technological solutions, Bel strengthens its commitment to a more virtuous and circular production model.

"By transforming our cheese whey into high-value proteins, we give a second life to our by-products while significantly reducing our carbon footprint. This innovation shows that technological collaboration and environmental excellence can go hand in hand." emphasizes **Caroline Sorlin, Director of Investments and Start-up Collaborations at Bel Group**.

"This industrial validation confirms the robustness of our technology and its ability to sustainably transform practices in the dairy industry. We now have a proven and replicable solution." explains **Olivier Ladet, Industrial Director at Standing Ovation**.

"Today, we are reaching a decisive milestone that goes beyond technology. This world-first achievement proves that our industry can be profoundly transformed by generating significant nutritional, economic, and environmental value. Through our co-product valorization process, we are helping build a more resilient, sustainable, and sovereign dairy sector. This industrial success highlights the potential of French innovation to address major climate and food challenges." adds **Yvan Chardonnens, CEO of Standing Ovation**.

"The ability to generate caseins from a co-product of traditional cheese-making represents a true technological revolution, as well as a significant step forward in our commitment to a sustainable food transition," emphasizes **Anne Pitkowski, Bel Group Research and applications Director**.

Sustainable prospects for the dairy sector

Standing Ovation now aims to:

- **Gradually scale up production**
- **Support other dairy industry players in adopting this circular, low-carbon valorization approach**

With this milestone, Standing Ovation reinforces its ambition to establish its technology as an industrial standard, serving a more sustainable, circular, and sovereign dairy sector.

About Standing Ovation

Co-founded in 2020 by microbiologist and agronomist Romain Chayot, Standing Ovation is a French company specializing in precision fermentation. Winner of the French Tech 2030 program, it benefits from the support of the French government and major investors for its industrialization. In 2022, Standing Ovation signed a strategic partnership with the Bel Group. Using its technology, the company has developed its first patented ingredient, an advanced casein called Advanced Casein™, which has very low CO2 emissions, is frugal in its use of water and land, and has nutritional, taste and functional qualities equivalent to those of protein from livestock. Standing Ovation plans to market its flagship protein in the United States as early as 2026 and aims to become a global leader in food and environmental transformation.

For more information, visit [Standing Ovation](#).

About the Bel Group

The Bel Group is a major player in healthy cheese, fruit, and plant-based snacking segment. Its portfolio of differentiated and internationally renowned products, such as La Vache qui rit®, Kiri®, Babybel®, Boursin®, Nurishh®, Pom'Potes® and GoGo squeeZ®, as well as around 20 other local brands, enabled it to achieve sales of €3.7 billion in 2024.

Nearly 11,000 employees in around 60 subsidiaries worldwide contribute to the Group's mission: to offer healthier and more responsible food for all. Its products are manufactured in 30 production sites and distributed in more than 120 countries. www.groupe-bel.com

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