



Future Permeate & Protein Bottleneck

Which Valorisation Strategies for Whey
& Milk Co-Products in a Protein-First Market?

A multi-client study proposal by Gira

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Closing the protein demand and supply gap:

Driven by a convergence of physiological shifts and geopolitical effects - ranging from restrictive trade tariffs to the GLP-1 effect - global whey protein demand and prices are surging. As population growth and the rapid expansion of **specialised nutrition** (sports, medical, and geriatric) push high-protein demand into mainstream beverage and food sectors, the market is currently facing a "protein gap" characterised by price surges and widespread product reformulations. Despite significant **CapEx investments** and the construction of massive new processing hubs (particularly in the US), several core questions remain:

- Will this added capacity close the deficit by **2030**?
- Where will most demand growth come from? In which region and sectors?
- How to plan ahead?

***Proteins targeted:** dry whey proteins (WPC80, WPI), caseinates, as well as milk proteins (MCC/MCI, MPC/MPI)*

Valorising permeate and other co-products

Increasing protein production is associated with higher permeate output. Moreover, WPC/I and MCC/I production also generate co-products, respectively, whey protein phospholipid concentrate (WPCC) and native whey proteins. Industry margin depends on the valorisation of those co-products. Existing valorisation routes (lactose production, milk powder standardisation, permeate powders uses in food processing, etc.) are no longer sufficient to absorb the volumes generated by current and future protein production. New added-value options should be further developed.

- How to best valorise permeates and WPCC?
- What are the latest industry developments?
- Which applications bring the highest margins?

***Products targeted:** whey and milk permeate. In option: WPCC and native whey protein.*

Who is this study for?

- Dairy protein processors,
- Equipment providers,
- End-product manufacturers,
- Investors,
- Etc.

Gira strengths

- More than 30 years of **experience and collaboration with international dairy industry leaders.**
- **Decades of food industry expertise**, with 15 years of the Gira Dairy Club, as well as 3 years of the Gira Ingredient Club.
- **In-house proprietary database** with ingredients supply and demand volumes, by country and application.
- **Extensive knowledge** across dairy, plant-based and bioengineered **proteins** (from biochemical properties to functionalities and industrial valorisation, etc.).
- Ability to conduct in-depth **market analysis and strategic positioning.**
- **Extensive network** within dairy ingredient producers worldwide.

Part 1: Dairy protein supply & demand through 2030

A - Current and future dairy protein production

- **Key regions:** EU-27, North America, Oceania, South America
- **Production volume** of whey proteins (WPC80 and WPI), caseinates, and milk proteins (MPC/I, MCC/I): 2026e-2030f. Volume analysis by region and applications
- **Expected production capacity** to be added in the coming years, by region.

B - Current consumption and future demand of dairy proteins

- **Key regions:** EU-27, North America, Oceania, South America, Asia (covering China, Japan, South Korea and Southeast countries), and the Middle East
- **Consumption volume** of whey proteins, caseinates, and milk proteins: 2026e-2030f. Volume analysis by application and region
- **Key regional impact factors** (from macroeconomic trends to the GLP-1 effect).

C - What will be the gap between supply and demand by 2030?

- How much capacity is needed to close the deficit?
- What is the impact on the supply of other dairy products?
- What could be the impact of other protein sourcing? (ex: plant, fermentation, ...)

***Note:** Gira chose to cover permeate, WPCC and native whey protein (n-WPC / n-WPI) to analyse the valorisation of co-products, which are a result of the production of proteins covered within Part 1 of our study.*

→ Permeate is the core focus of this study.

Part 2: Valorising protein co-products: permeate, WPCC, native whey

A - Permeate

- **Production volume by region** (EU-27, North America, Oceania, South America): 2026e and expected by 2030f
- **Permeate:** main applications, key functionalities needed, value generation, novel developments
- Overview of **lactose valorisation** within food, pharmaceutical and infant nutrition
- **Competition** on the market: what are industry leaders already doing, and which ingredients would permeate compete with most?

B - Conclusion

- Which product mix would drive the best margins?
- How can added permeate volume be viable in the future?

Option:

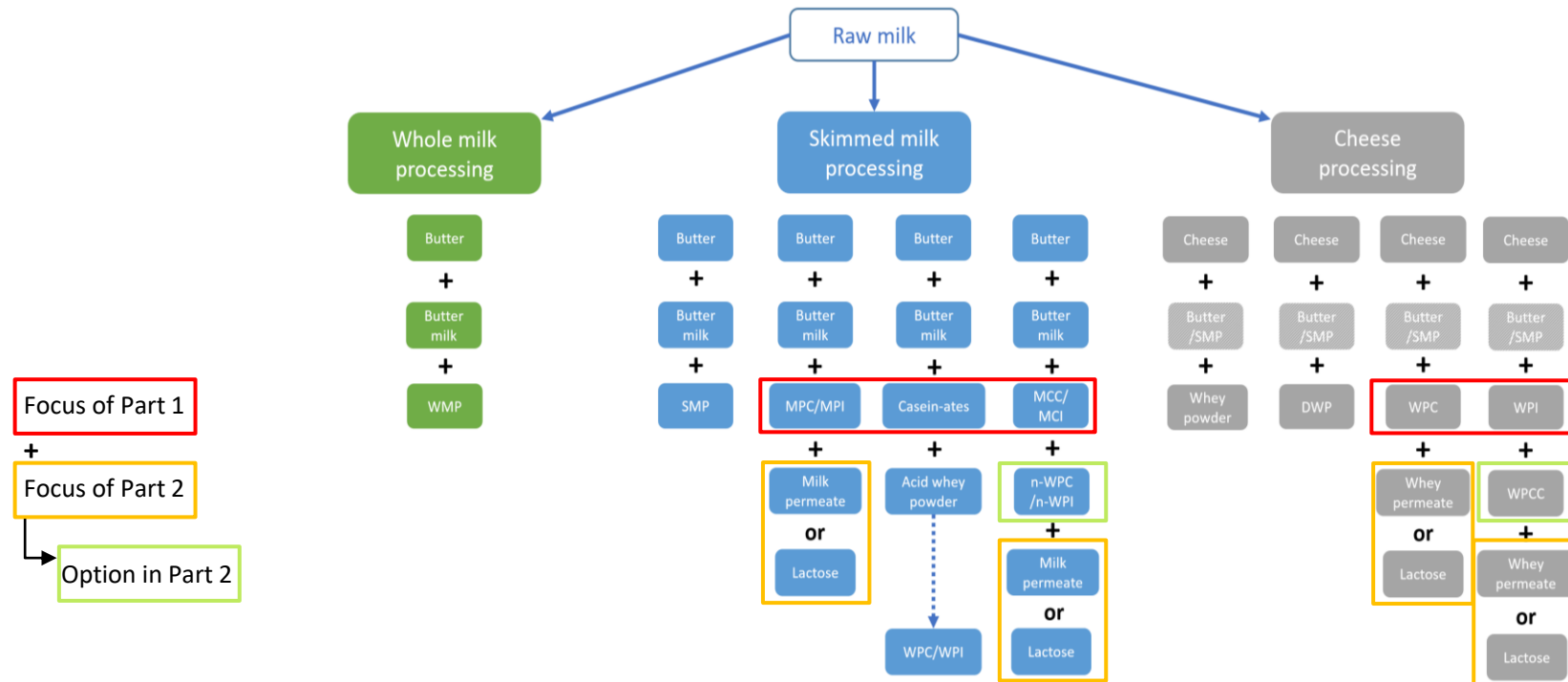
WPCC

- **Production volume by region:** 2026e and expected by 2030f
- **WPCC:** main applications, key functionalities needed, value generation, novel developments
- **Competition** on the market: what are industry leaders already doing, and which ingredients would WPCC compete with most?

Native whey proteins (n-WPC/n-WPI)

- **Production volume by region:** 2026e and expected by 2030f
- **Native whey protein:** main applications, key functionalities needed, value generation, novel developments
- **Competition** on the market: what are industry leaders already doing, and which ingredients would n-WPC / n-WPI compete with most?

Targeted Ingredients within the study



Methodology

A combination of **3 primary research approaches** will be used to obtain the fullest coverage of the key aspects and drivers of the markets to be analysed & forecasted:

- **Gira's extensive knowledge and in-house databanks, as well as hands-on experience in dairy and dairy ingredients worldwide, including:**
 - Fifteen years of Gira Dairy Club knowledge, where market data for the main technical dairy ingredients is provided.
 - Three editions of the Gira Ingredients Club.
- **Extensive documentary research:** to validate and update certain figures: published studies, trade, corporate and other websites etc.
- **Structured interview program (face-to-face/phone/MS Teams interviews)** conducted with a range of operators throughout the dairy value chain.
 - Gira's longstanding reputation for research and consultancy in the global market opens doors for us to the most informed and competent sources of information. We have a proven track record for conducting highly technical interviews throughout the dairy sector value chain worldwide.

Deliverables

The results will be delivered through a written report and a presentation on completion of the project.

- The **report** will be published in English and released in PDF PowerPoint “report format” (similar to the style of this proposal).
- A **presentation** of the results and future opportunities will be given during a one-hour webinar (including Q&A). The date and time of this webinar will be decided jointly after completion of the study and will be delivered remotely via MS Teams.
 - An in-person presentation is possible on request, depending on the availability of the client and the Gira team. Travel expenses will be charged at cost.

Timing

The report will be published in the **first trimester of 2027**.

Project Fees

Gira’s professional fee for the assignment (Part 1 and Part 2) is **EUR 10,000**

- The fee includes the report and the final presentation (delivered as a one-hour remote webinar).
- The fee excludes Gira’s travel expenses for the final presentation (if handled on a face-to-face format). These will be invoiced at cost.

The option (covering WPCC and native whey protein) is **EUR 5,000**

Special discounted price for members of the **Gira Dairy Club (GDC)** and/or **Gira Ingredients Club (GIC)**:

- Part 1 & 2: **EUR 8,500**
- Option: **EUR 4,250**

Payment

50% of the professional fee is invoiced on signature of the contract.

The Final 50% of the professional fee and out-of-pocket expenses are billed on submission of the Final Report and webinar.

Reasonable Endeavours

The Gira team will work on this project on a reasonable endeavour basis, and with normal hold-harmless protection.

We are aware that our role is to give clear, professional, focused, commercial opinion and advice.

Our Company

Over the last **30 years**, Gira has built up a major reputation and client base in the **international dairy, meat and bakery sectors**. Over the last five years, Gira has also been **active in the “alternative protein” sectors** (whether plant-based or fermented), through several projects and webinars, as well as three editions of the Gira Ingredients Club.

- Gira is recognised for our **worldwide expertise, strategy consulting** and **market research** in ingredients, meat, dairy, bakery and foodservice, with specialist experience in all other food and drink areas (more details are available on www.girafood.com).
- Every year, Gira produces analyses and market forecasts for the dairy industry (from commodities to high-value ingredients), keeping track of industrial evolution.
- In recent years, we carried out many assignments (such as individual and multiclient studies) for international companies.
 - We have been delivering tailored solutions for companies harnessing innovative ingredients from dairy, plant, and bioengineered sources.
 - Gira updates every year its **Technical Dairy Ingredients report** (included in the Gira Dairy Club package).
 - We are used to providing strategic analysis and listing of potential partners for companies within the dairy, meat or ingredient sector.
- Our extensive **network of international experts, contacts and clients** in most dairy, meat, bakery and plant-based sectors means that we are qualified to carry out this research and analysis project. Experience has also shown that our **long-standing reputation** for research and consultancy in the global market opens doors for us to the most informed and competent sources of information.

The Gira Team



Christophe Lafougere is CEO of Gira, and directly responsible for all Gira assignments in the worldwide dairy sector. He has been directing all Gira's consulting and research activities in the dairy sector for over 30 years covering all aspects of production, collecting, processing and marketing, in all the major dairy producing and consuming regions of the world.



Laurène Bajard, consultant within Gira for the last 7 years, has a strong understanding of the food industry, from production to marketing. She is specialised in dairy, plant and bioengineered proteins, as well as South American markets. Currently working on the evolution of dairy and meat alternatives markets, she focuses on innovations, strategies and investments in this sector.



Guy Kientz, is a Senior Advisor with Gira. He has held a number of senior management positions in the food ingredients industry, including dairy, in various companies in Europe, the United States and Asia Pacific over the last 30 years. He brings his expertise in strategic consulting, project management and M&A



Mylène Potier is the project manager of this study. She has a PhD in Human Nutrition with particular reference to milk proteins and she is responsible within Gira for all studies and research on technical dairy ingredients. She has managed the two editions of the Technical Dairy Ingredients study. She supervised a team of consultants with experience gained over many years from individual and multiclient studies in the dairy sector.

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