Põllumajanduskoda
Estonian Chamber of Agriculture and Commerce

Gira

The current dairy situation
What about the future?

A presentation for Piimafoorum 2024

Christophe Lafougere, CEO Gira

April 2024

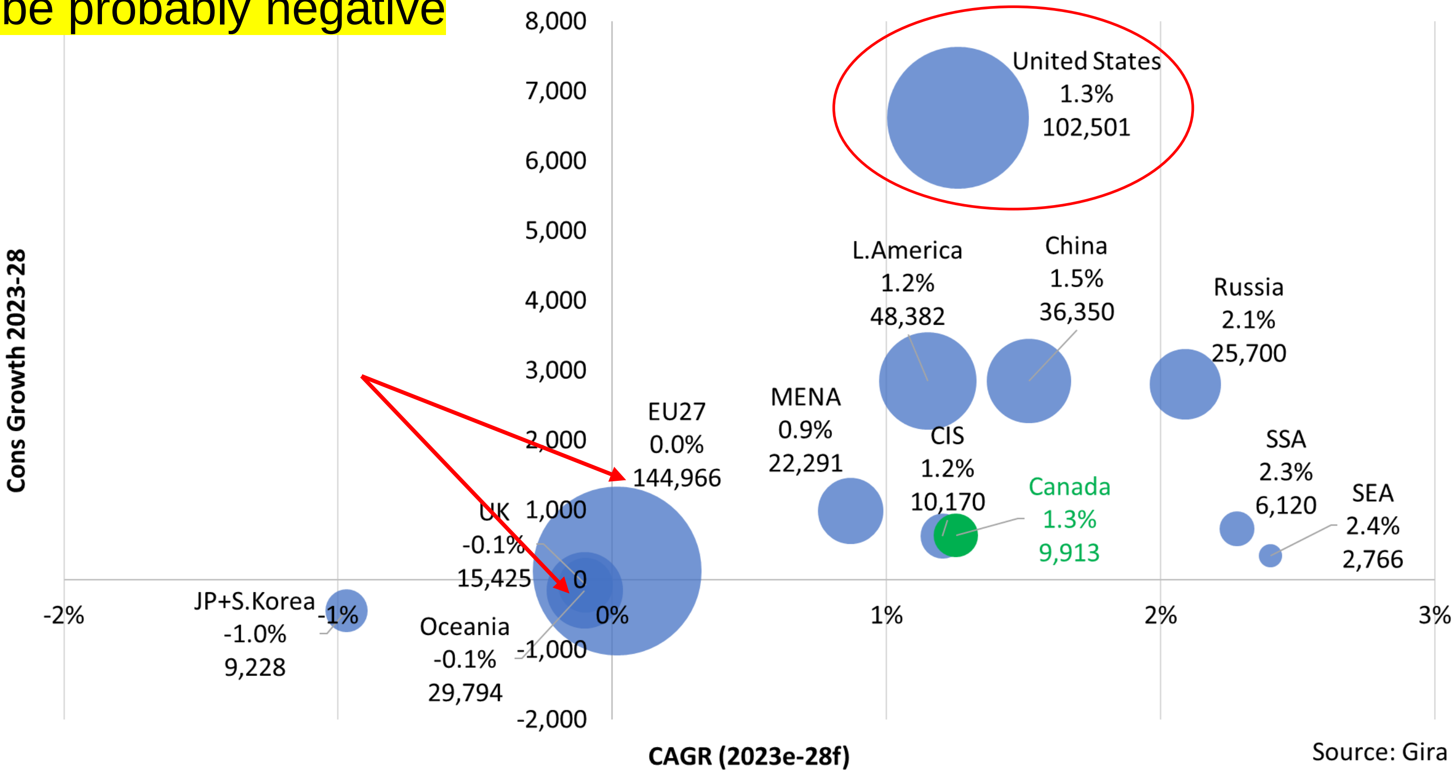
Euroopa Liit maaelu arenguks

Euroopa Maaelu Arengu Põllumajandusfond: Euroopa investeeringud maapiirkondadesse

Milk collection growth for the next 5 years by main regions

More milk out of the US/Canada and no growth for the EU and NZ

EU: will be probably negative



Source: Gira

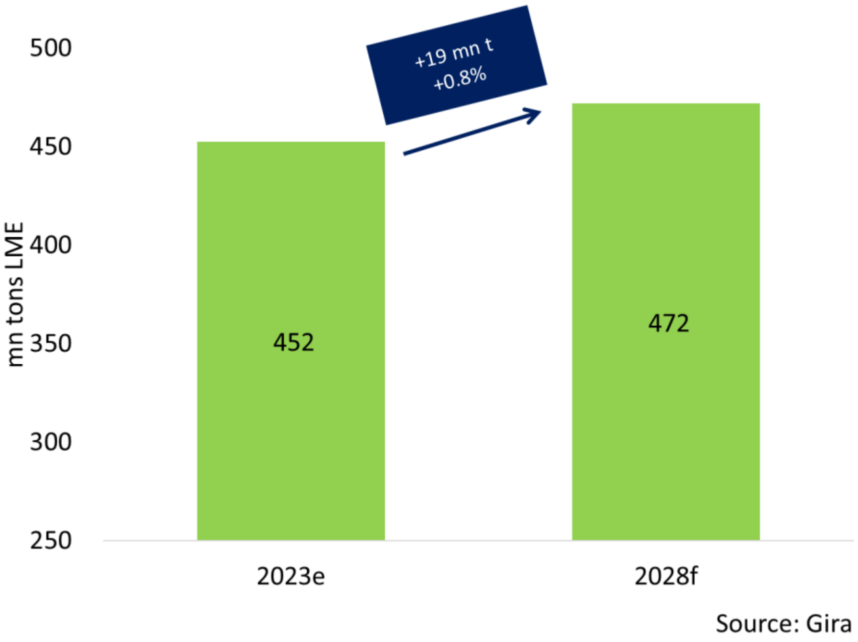
World dairy consumption

Will continue to increase but not everywhere

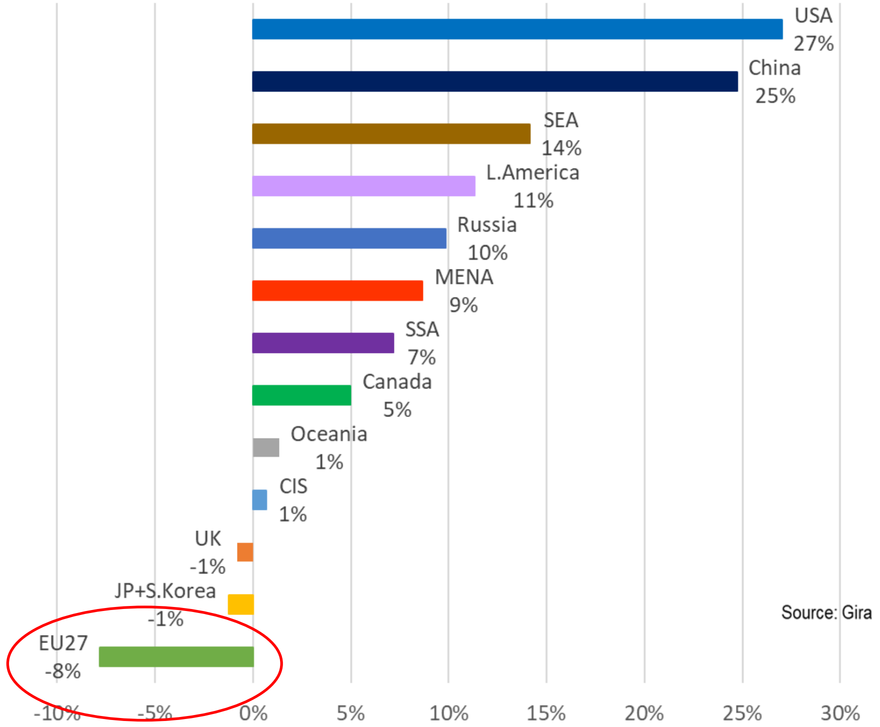
Dairy Consumption by Region

USA should become the fastest growing region in midterm

Dairy Consumption, 2023e-28f excl. IN & PK



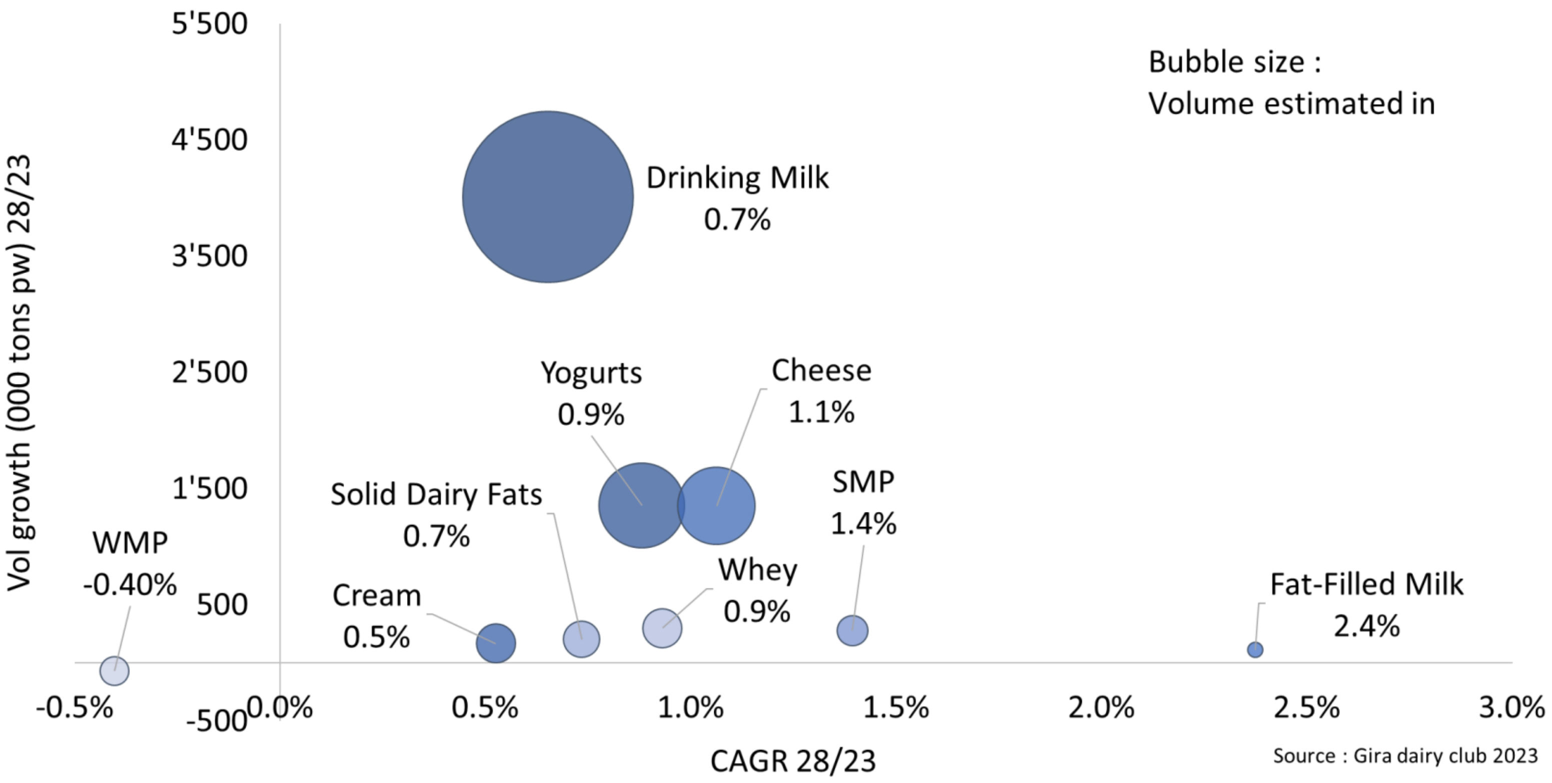
Region Contribution to the midterm growth, 2023e-28f



Overview of Consumption Growth by Product

For most dairy products : growth between 0.5% & 1.4% p.a.

Global Consumption growth, excl. IN & PK 2023e-2028f

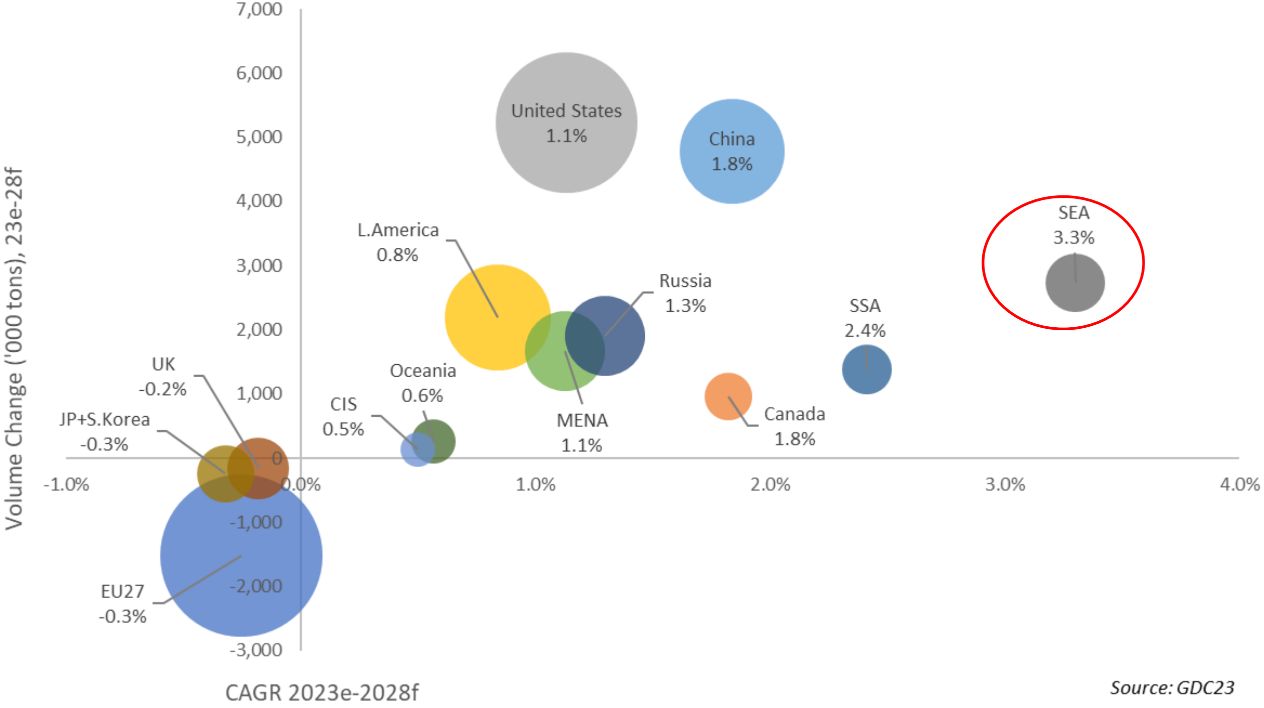


Source : Gira dairy club 2023

Summary of Demand in the coming years

SE-A should be followed carefully for the future!

Apparent Dairy Consumption in Milk Eq., 2023 to 2028f



Source: GDC23

Note: The apparent dairy consumption in milk equivalent is calculated by adding imports and retrieving exports to milk collection all expressed in milk equivalent.

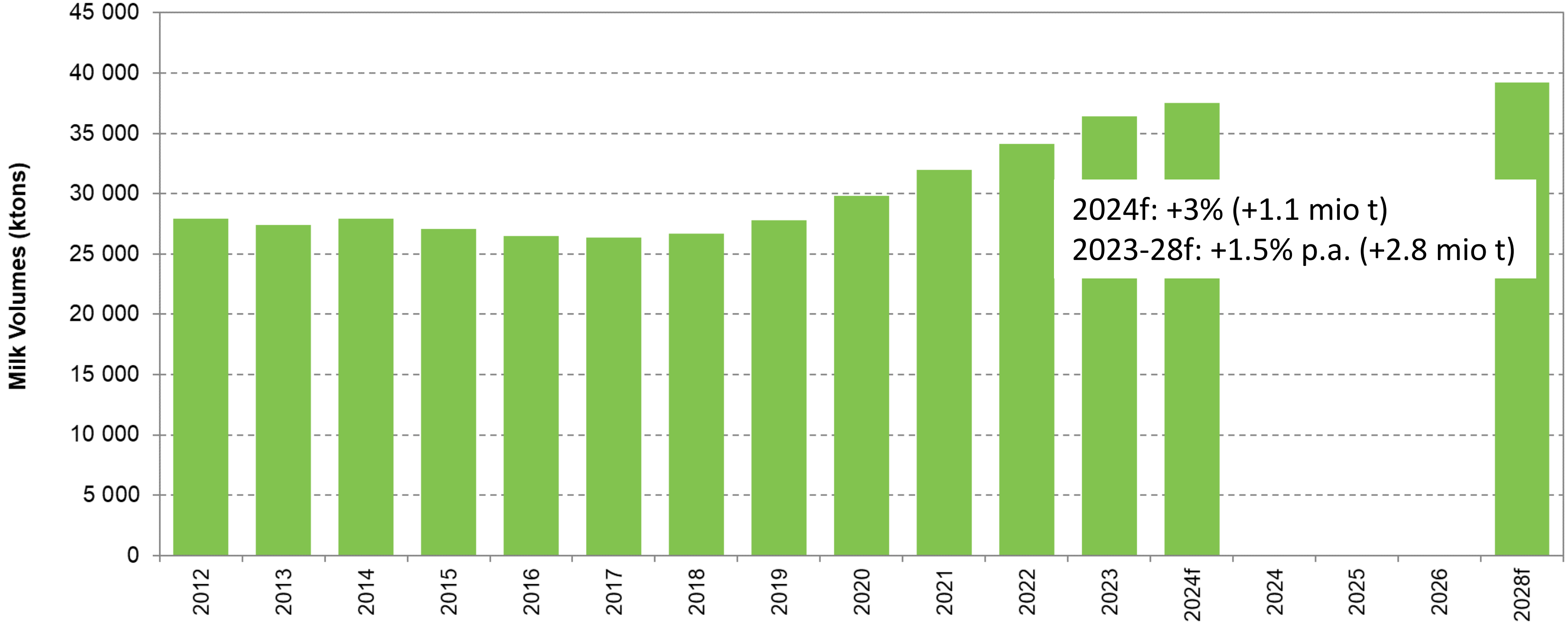
Focus on China

What’s going on?

What about the future of milk Collection

Base case scenario: slowing milk collection growth in 2024 & by 2028

Chinese milk collection, 2012-2023e, 2024f, 2028f

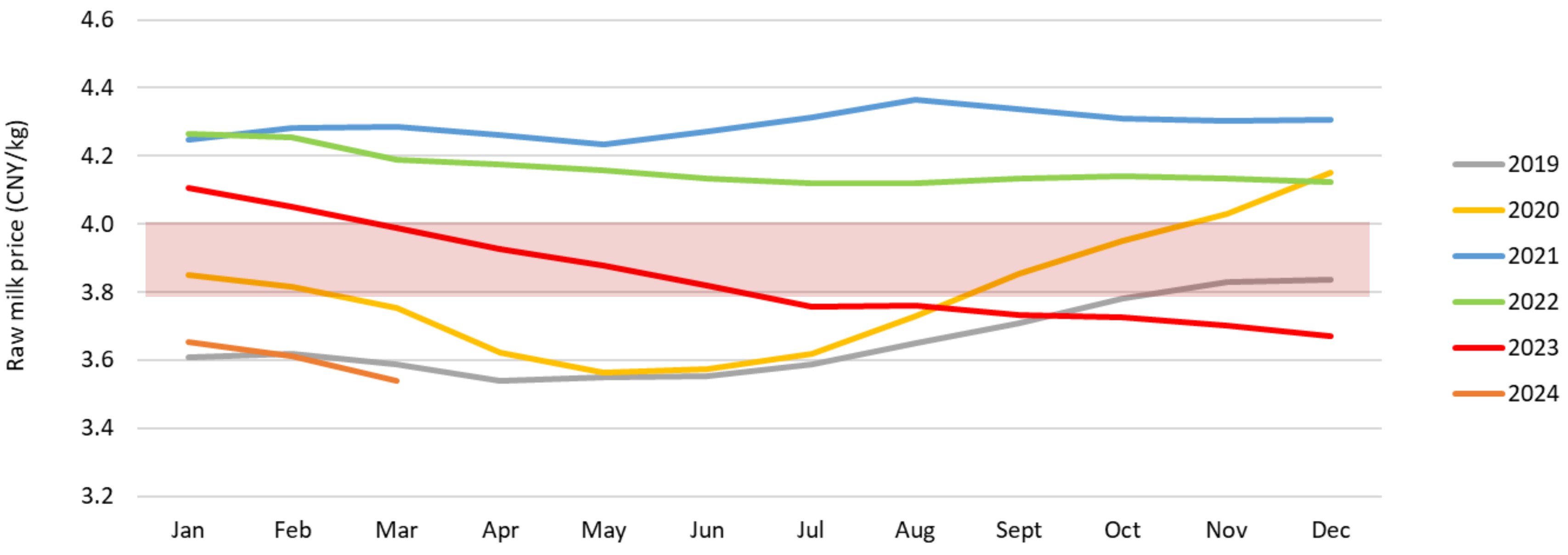


Source: NBS, IDF, Gira forecast

Milk Prices

Continuous decrease of milk prices

Monthly average raw milk prices, 2019-2024

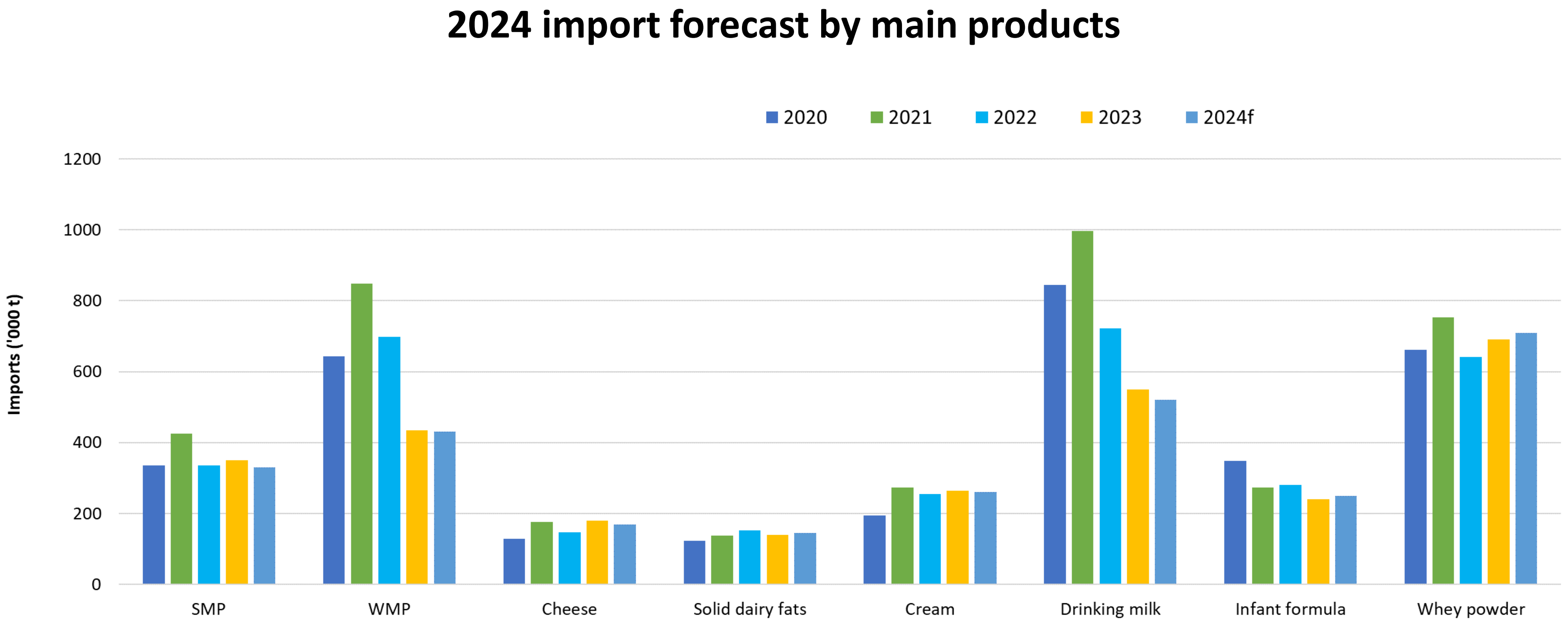


Source: Gira from Ministry of Agriculture of China

Break-even range

2024 Imports Forecast

Still too early to say…probably no significant recovery is expected in 24

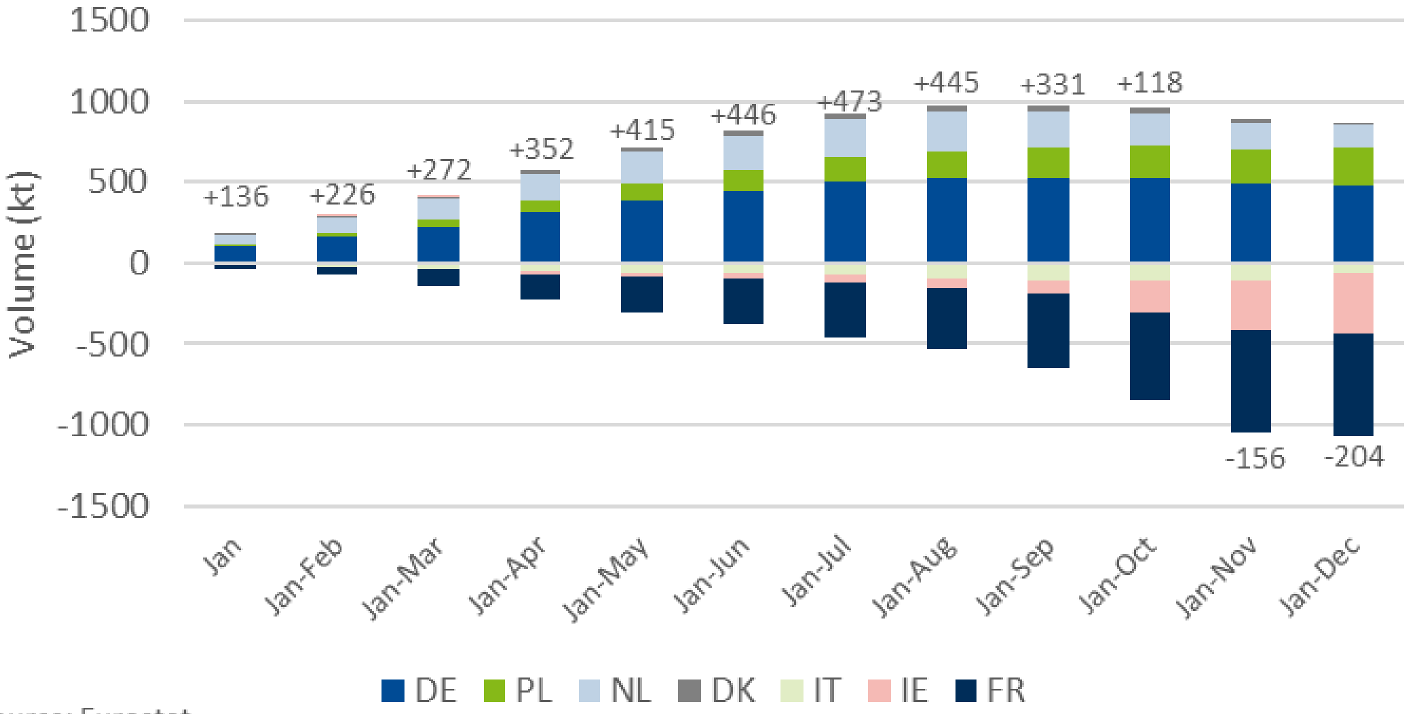


Source: Chinese Customs, Gira forecast

The EU market

EU Milk collection: zero growth in 2023

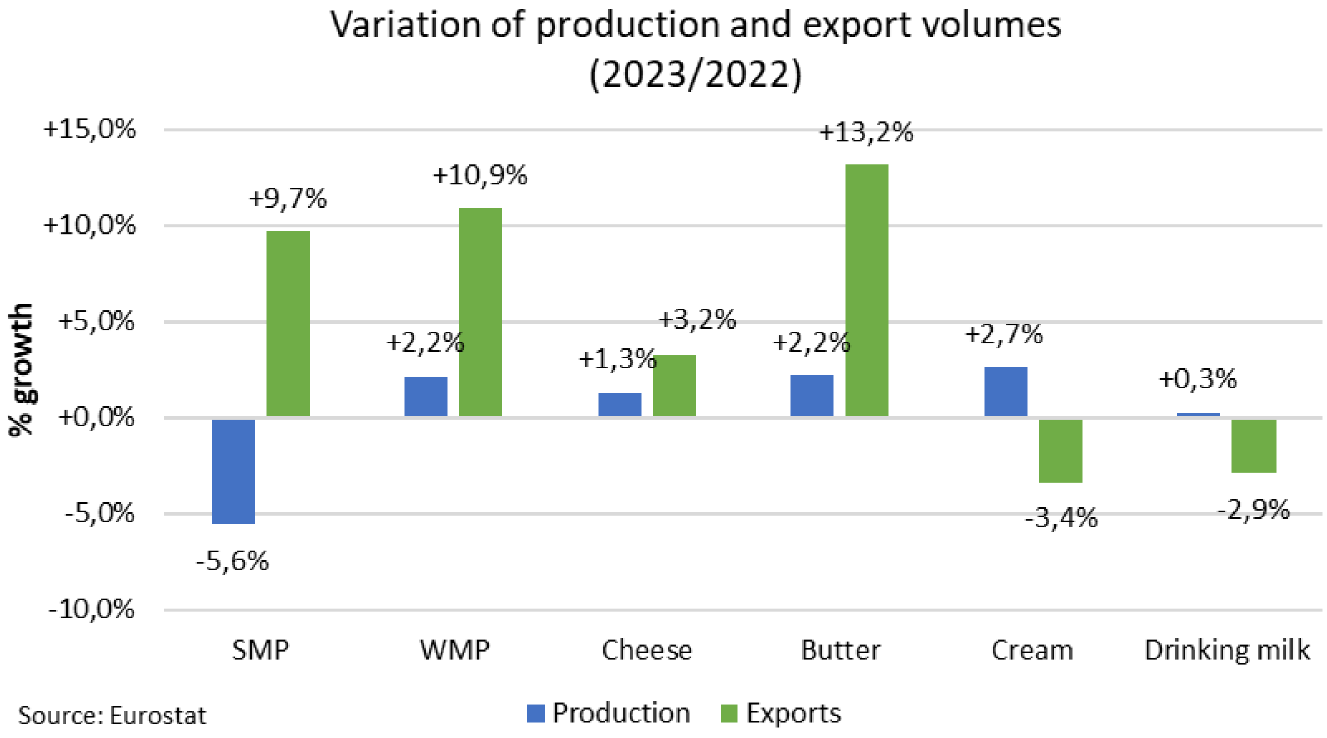
IE has been through several weather issue in 2023



Source: Eurostat

2023 Production and exports dairy products EU

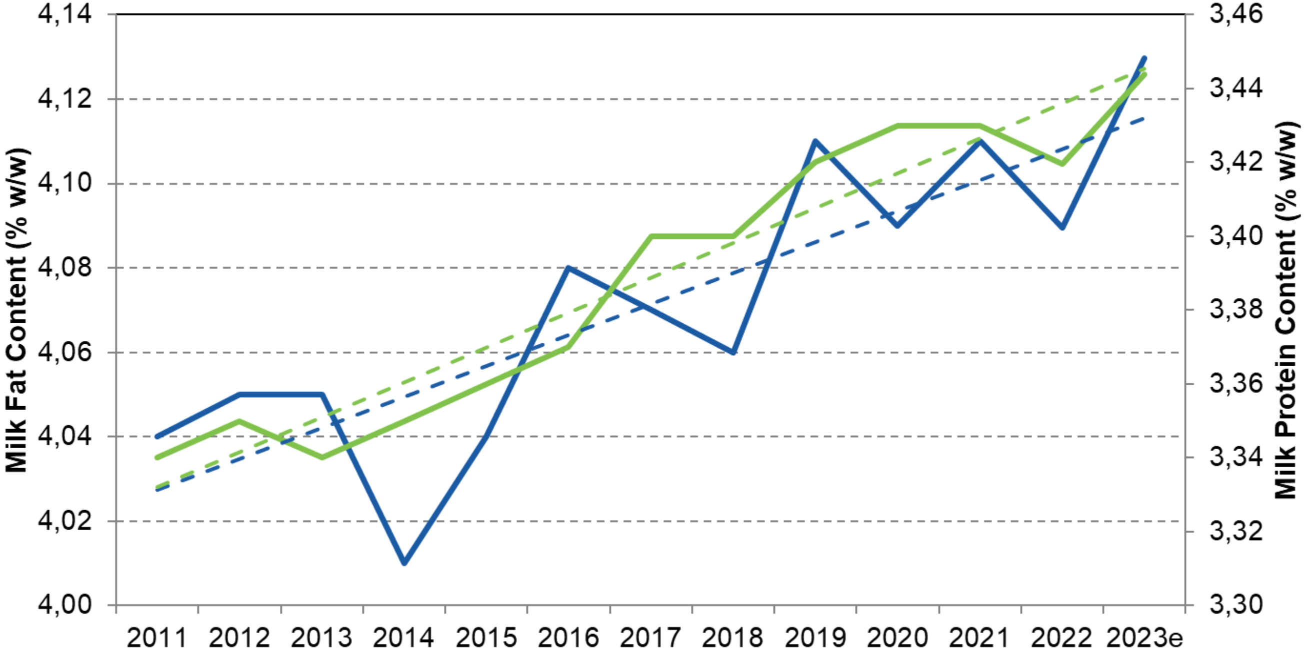
EU prod is low (no milk growth) but exports really up (low consumption)



Source: Eurostat

Between 2012 and 2023 we have gained potentially 120’000 tons of butter and 428’000 of SMP

Milk fat and protein contents over the years

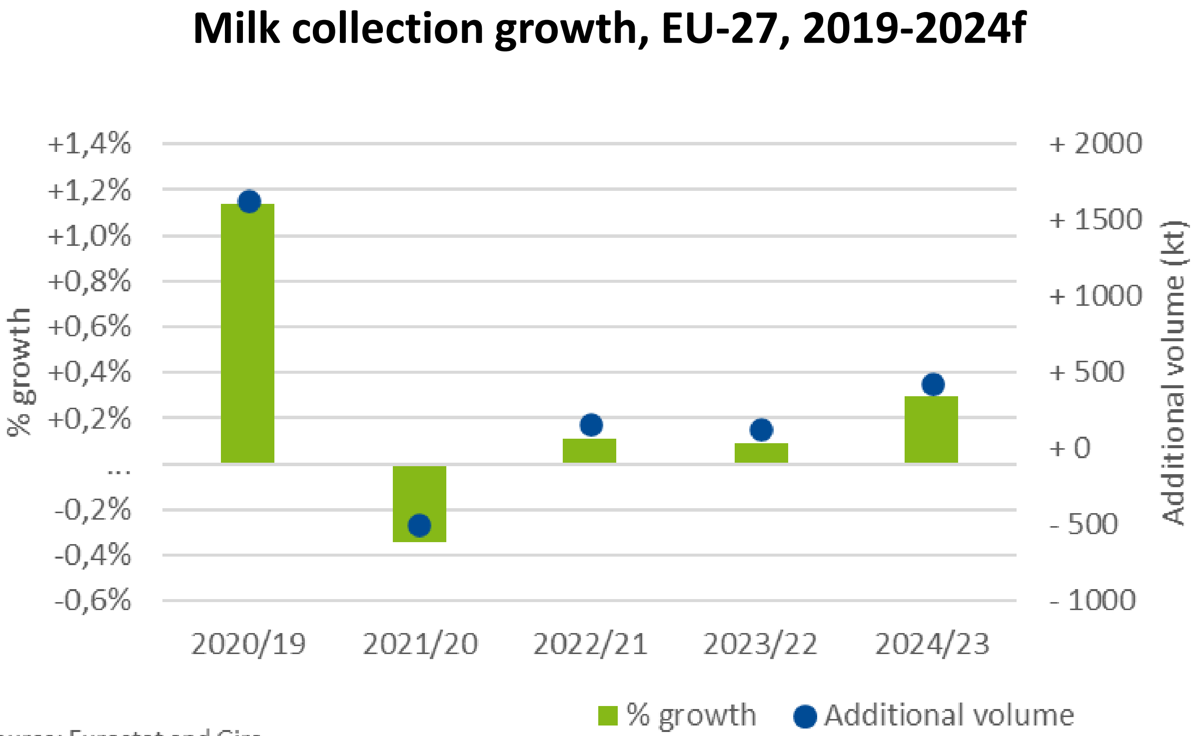


Source: Gira based on Eurostat

Equivalent of +55’000 tons of butter and 97’000 tons of SMP in 2023

Milk Collection Forecast for 2024

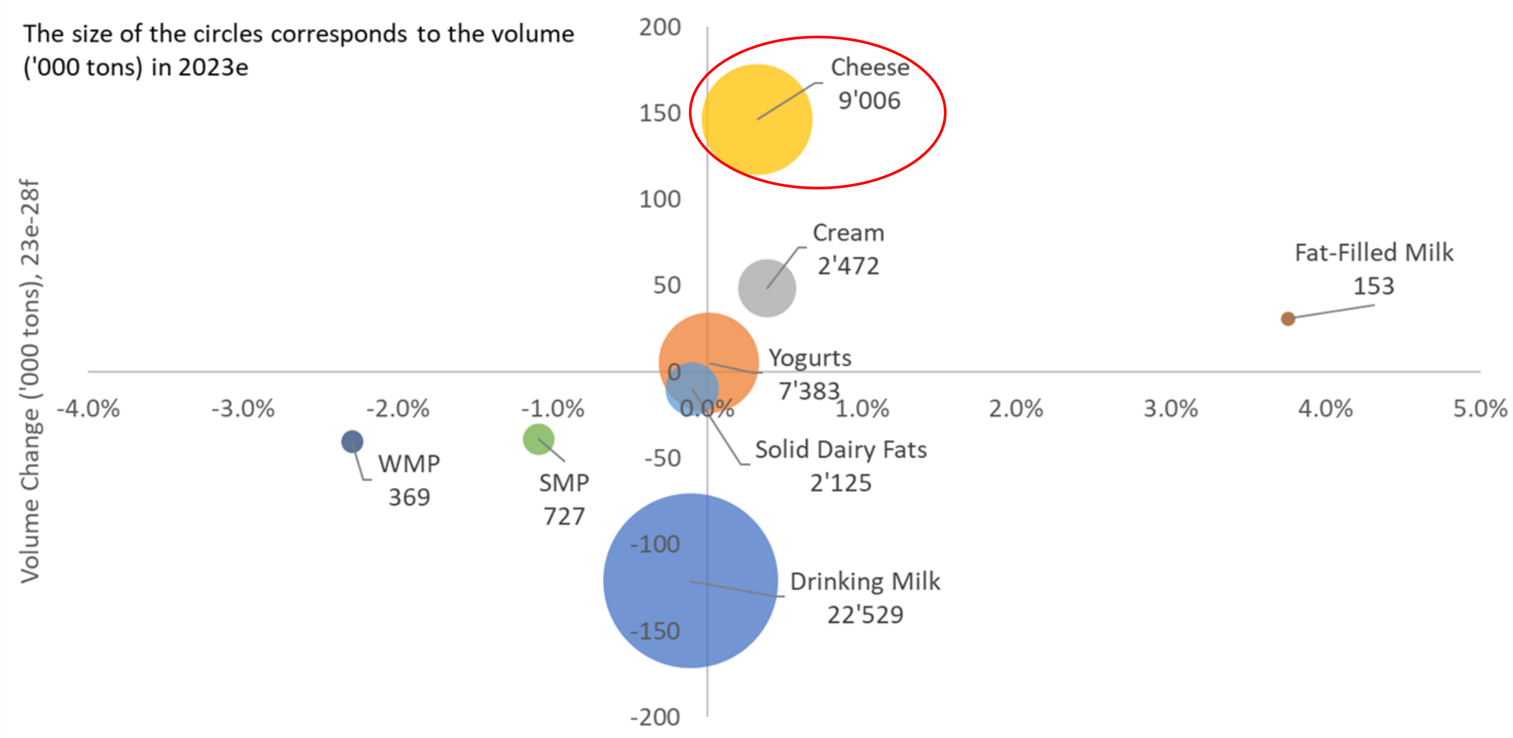
Small rise of milk collection expected in 24; milk price will be determinant



Source: Eurostat and Gira

EU dairy consumption trend 23/28

More and more cheese

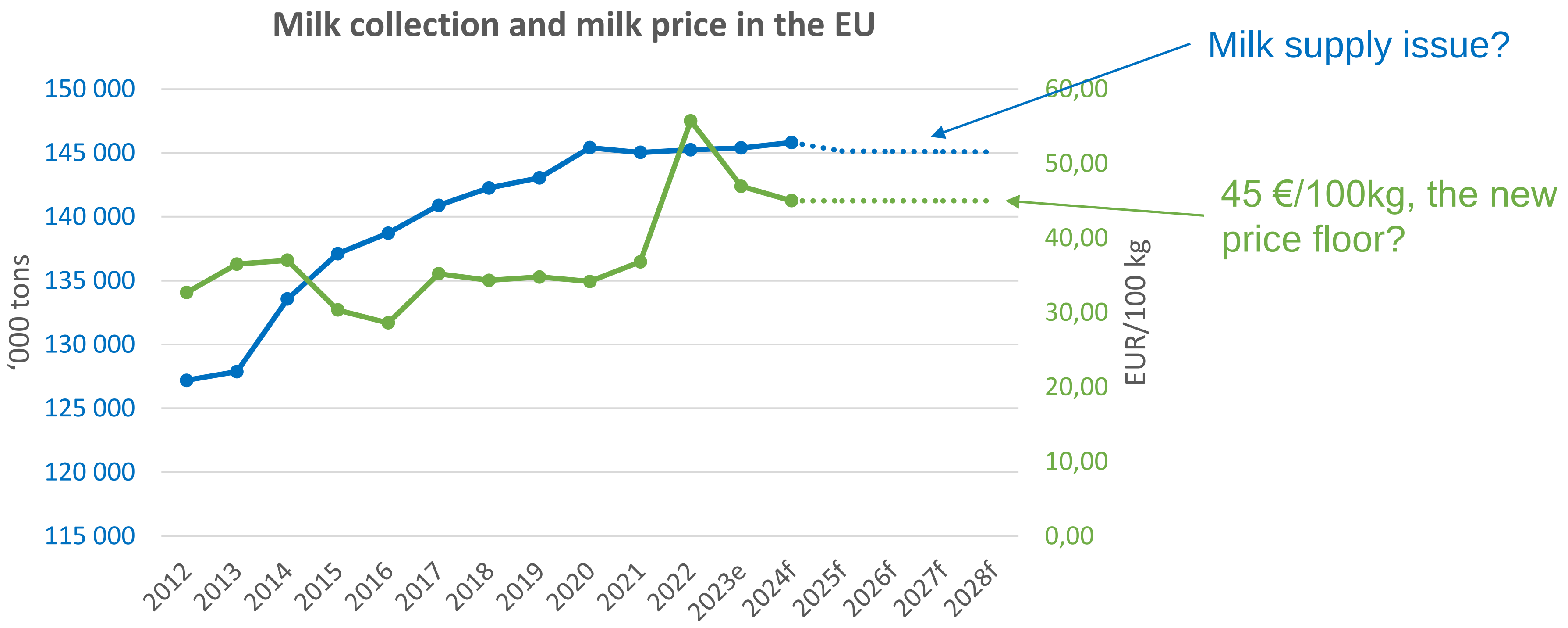


Source: Gira

Less milk and a more expensive milk

Is 45 €/100 kg the "new normal" in Europe?

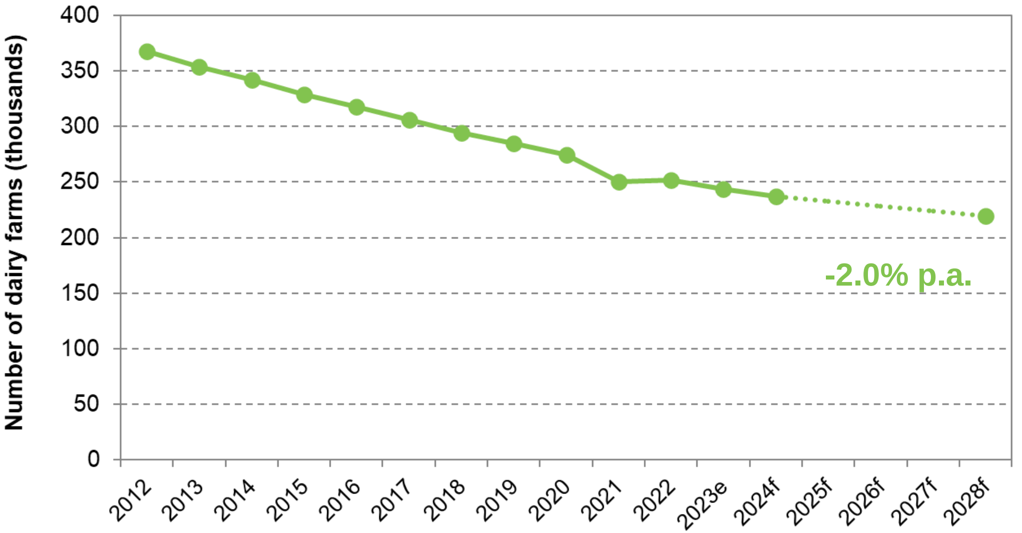
Higher milk price will weight on margin: need for added value



Source: Gira based on EU Commission

Farm outlook in DE, DK, FR, IE, IT, NL and PL

Dairy farms



Source: Gira based on Eurostat

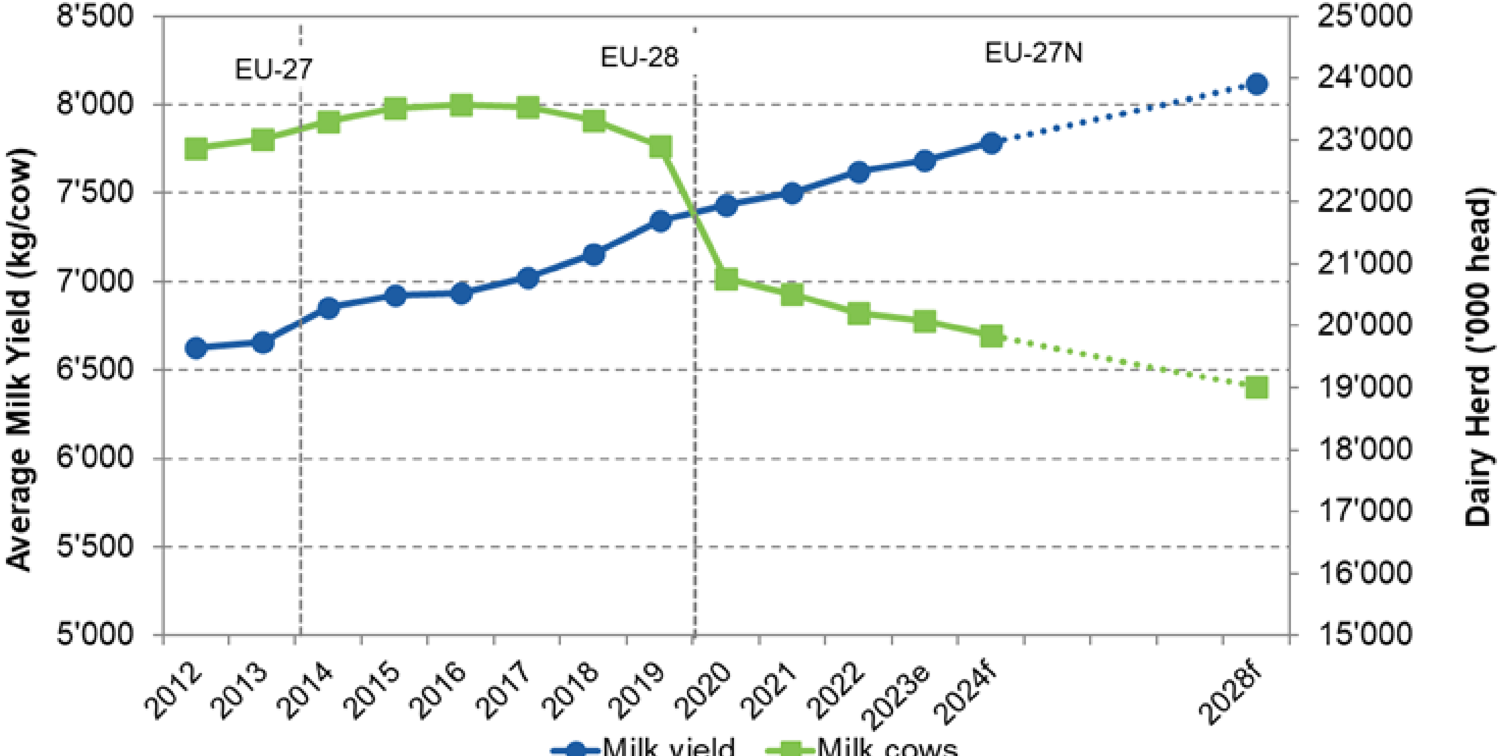
DE, DK, FR, IE, IT, NL and PL

=

52.3% of EU-27 dairy farms

cows will continue to go down (-1,1%), yield will goes up

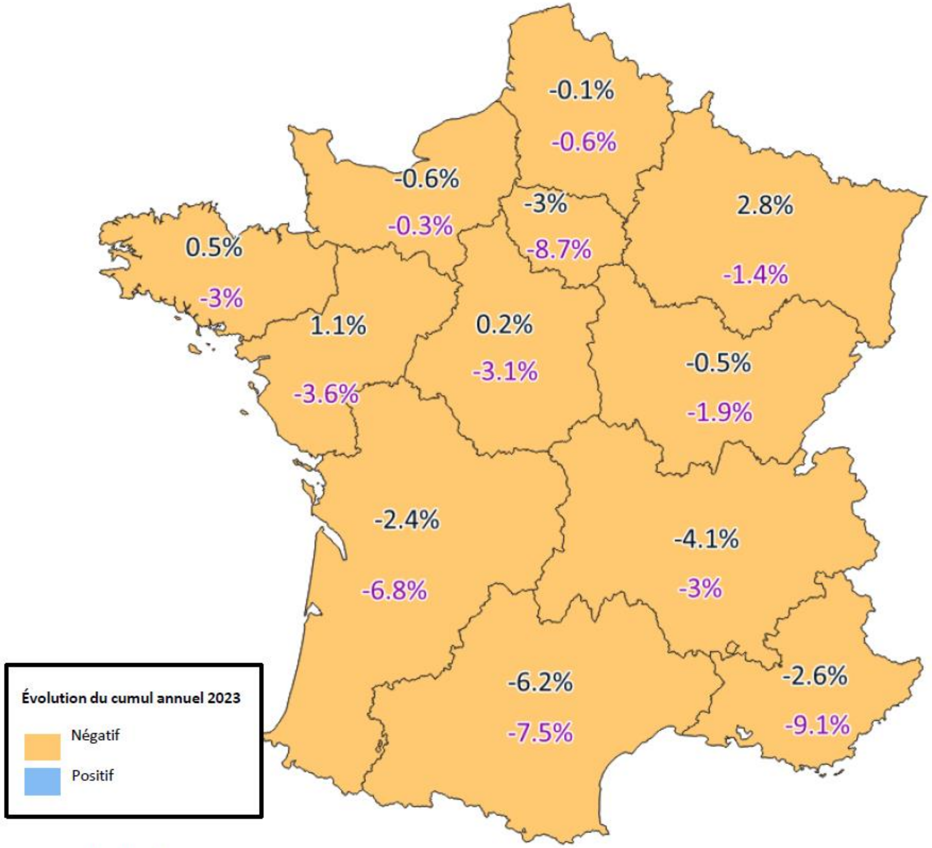
EE: -1,6% p.a during the period but Yield +3,7% p.a (best in class in the EU)



Source: Gira based on Eurostat

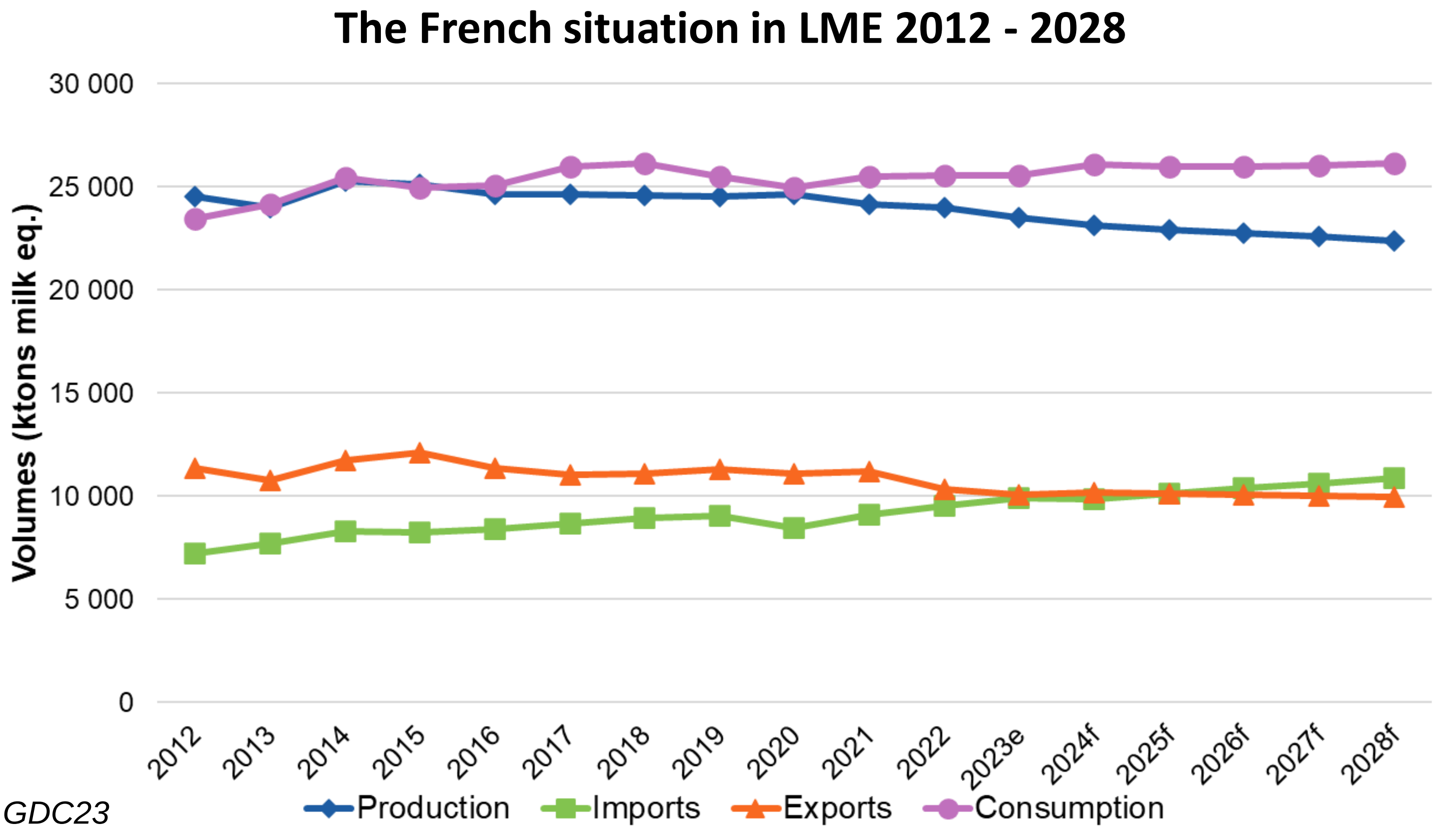
Milk collection in France: down in every region

2023: -2,7%, Jan 24: -0,3%



The milk situation in France in LME

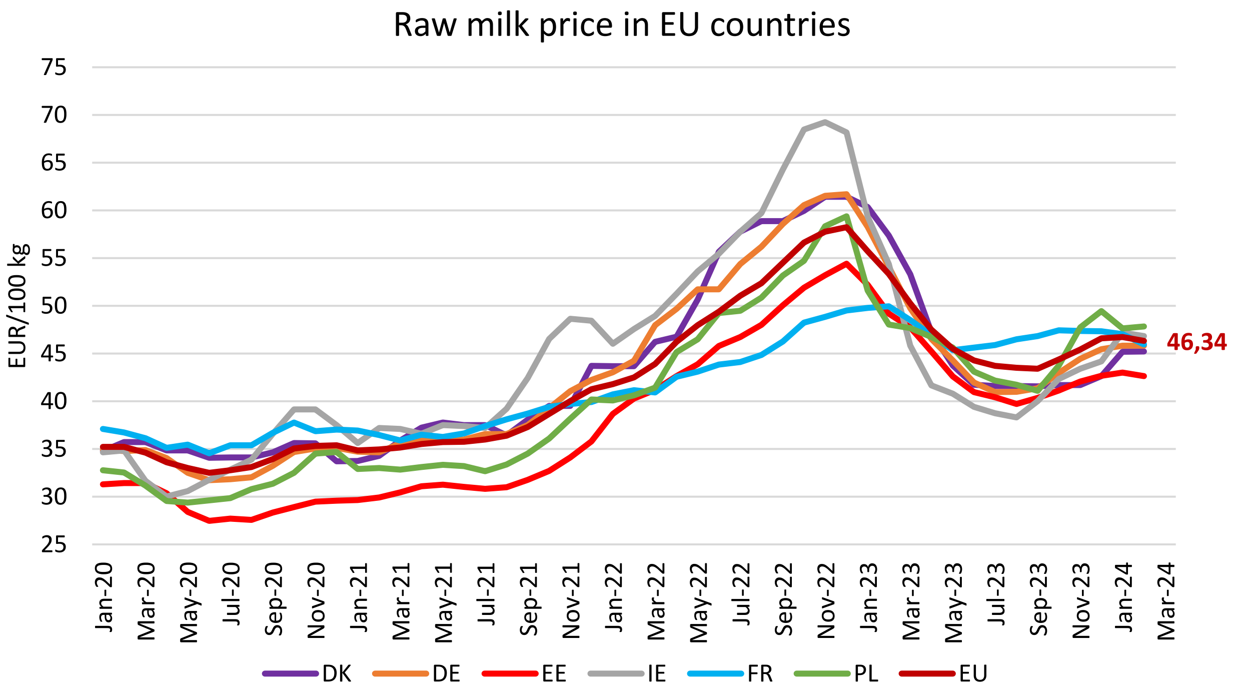
By 2027 France could become a net importer.

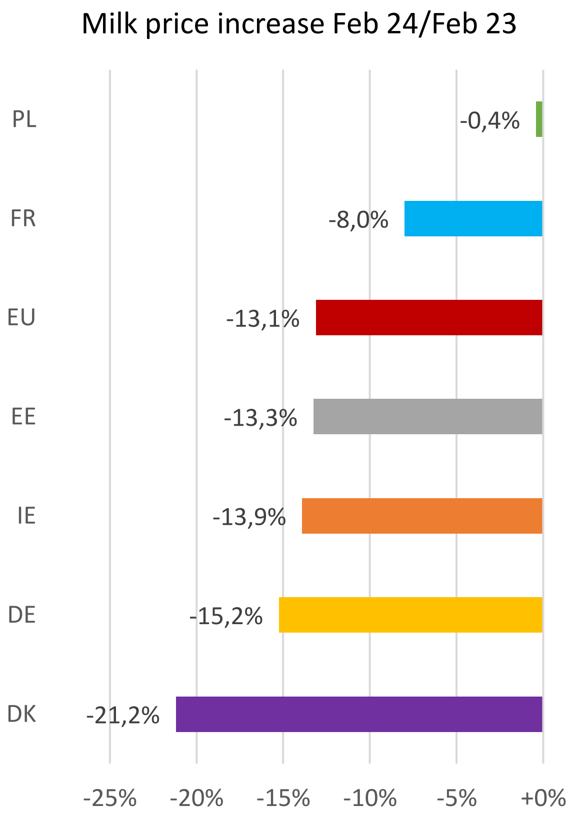


Source: GDC23

Milk prices: slightly up in February for most countries

Except for Estonia

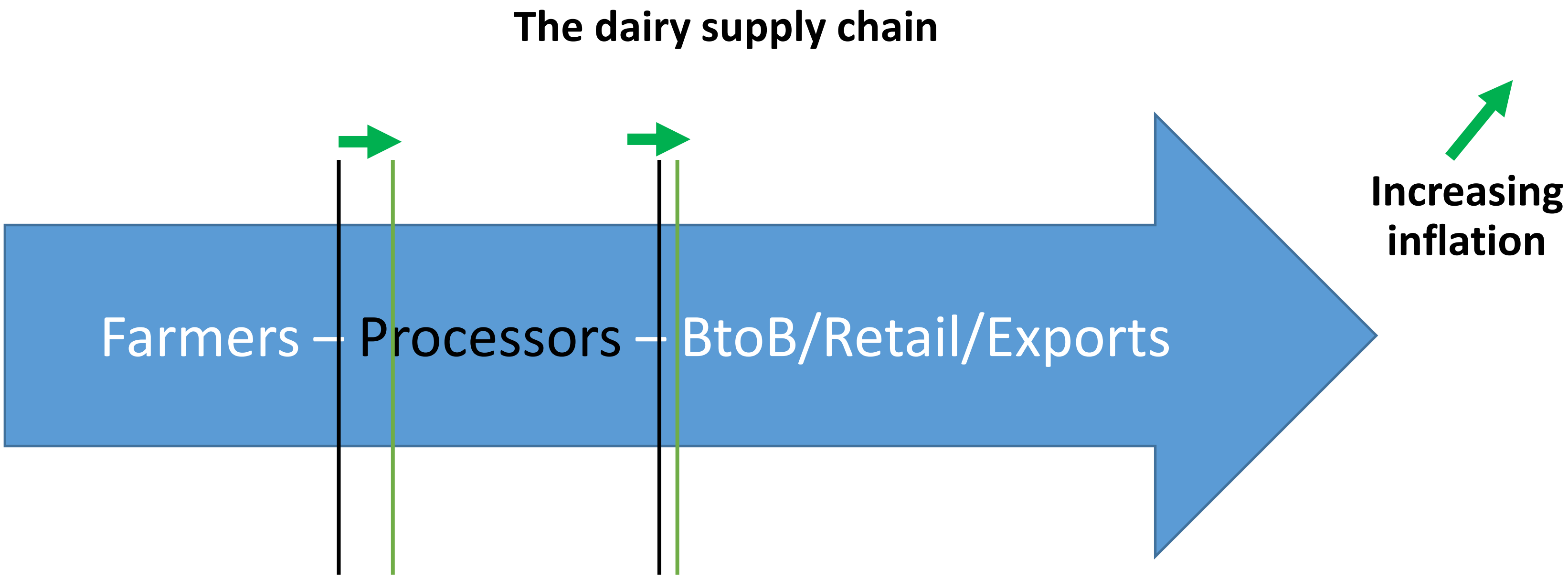




Source: DG Agri

What's the impact on processors?

Processors' margins will be squeezed



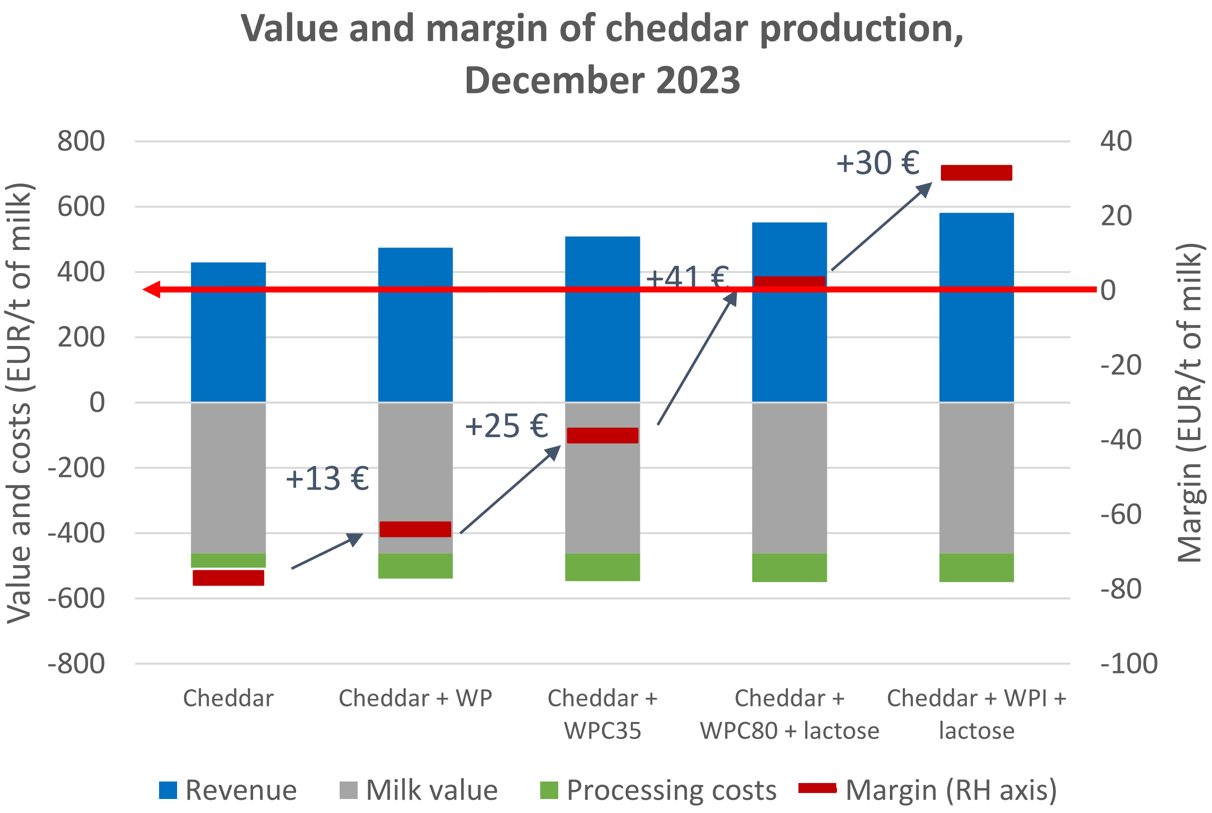
- Farmers will have a greater power of negotiation
- Clients of dairy processors (retail, BtoB and exports) have little room for price adjustments

→**Processors' margins could be squeezed** →**Dairy companies will readjust their strategies**

Extraction and valorisation of milk components
Not anymore the cherry on the cake but the cake itself

European Cheddar gross margin calculation December 23

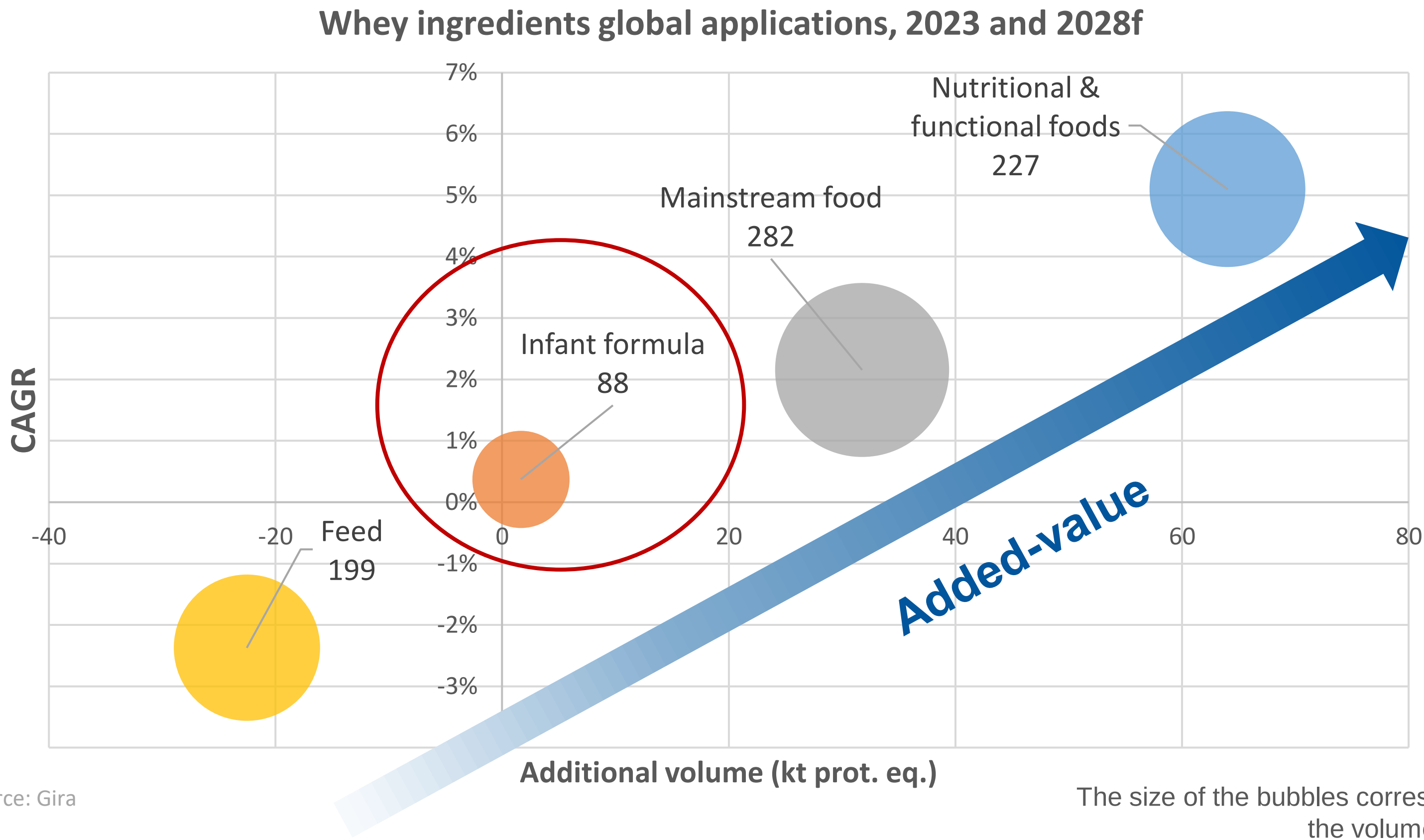
Valorisation is not enough. Compulsory to produce added value ingredients



Source: Gira calculation

Global applications

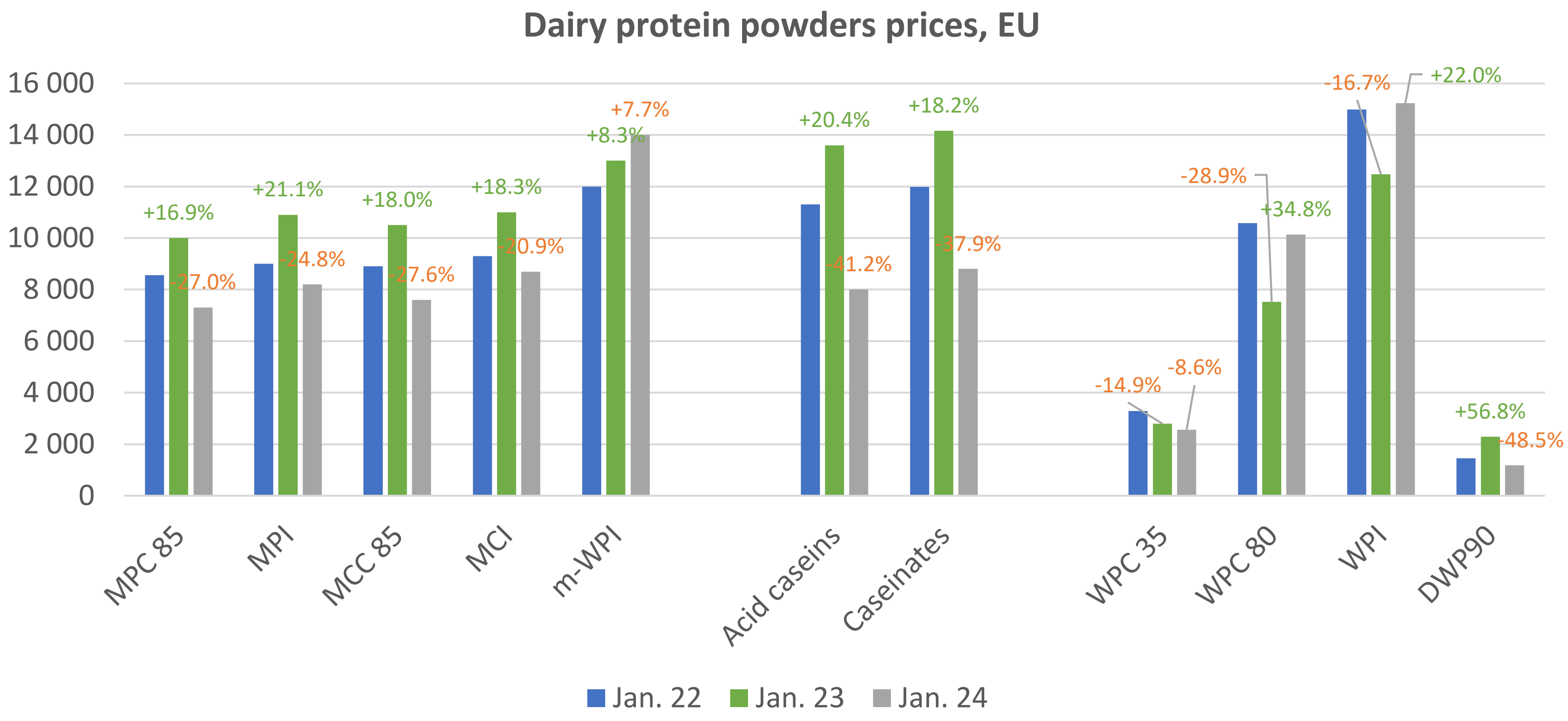
Nutritional & functional food still drives the demand



Source: Gira

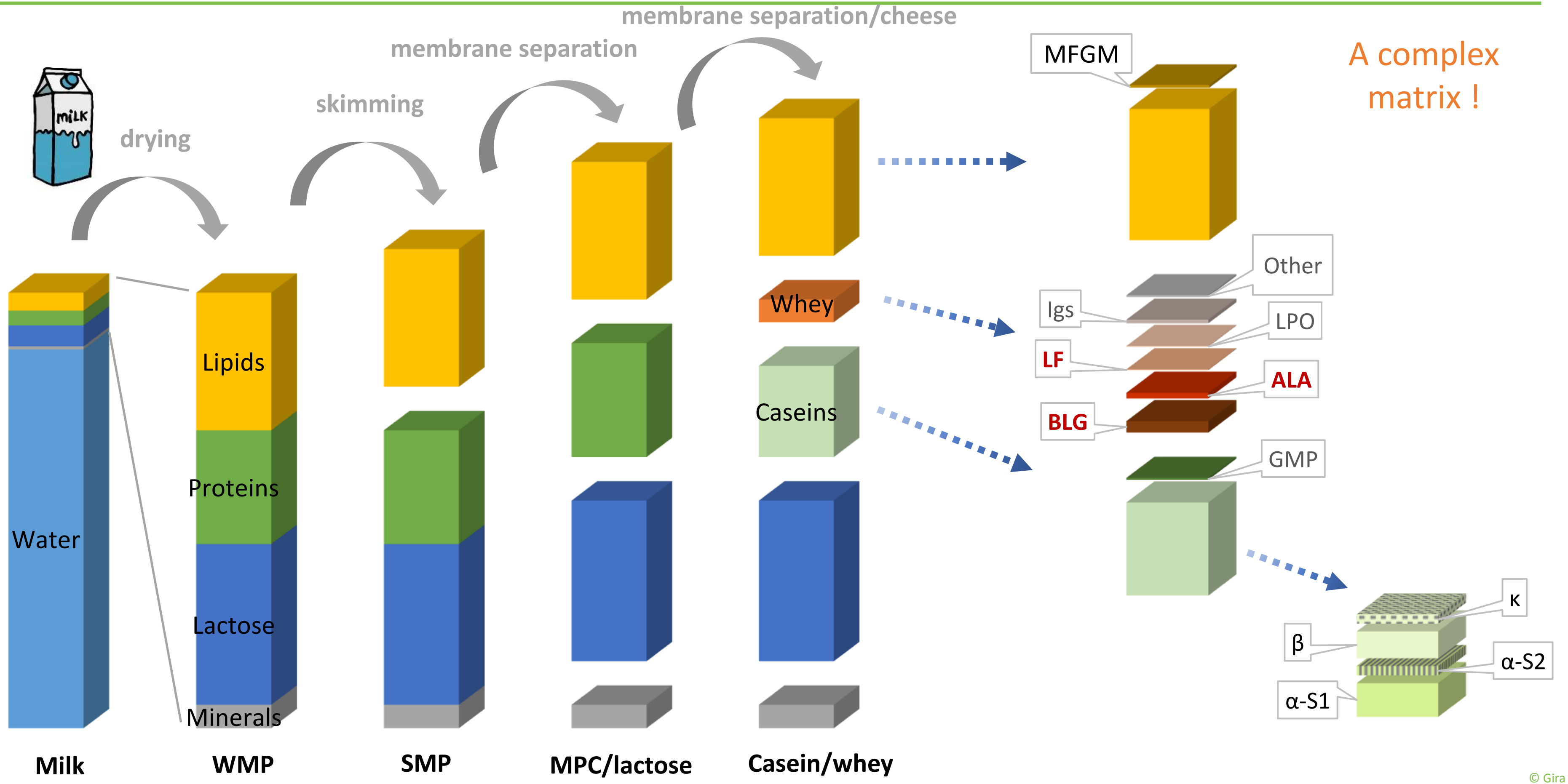
The size of the bubbles corresponds to the volume in 2023

Dairy protein powders prices, EU

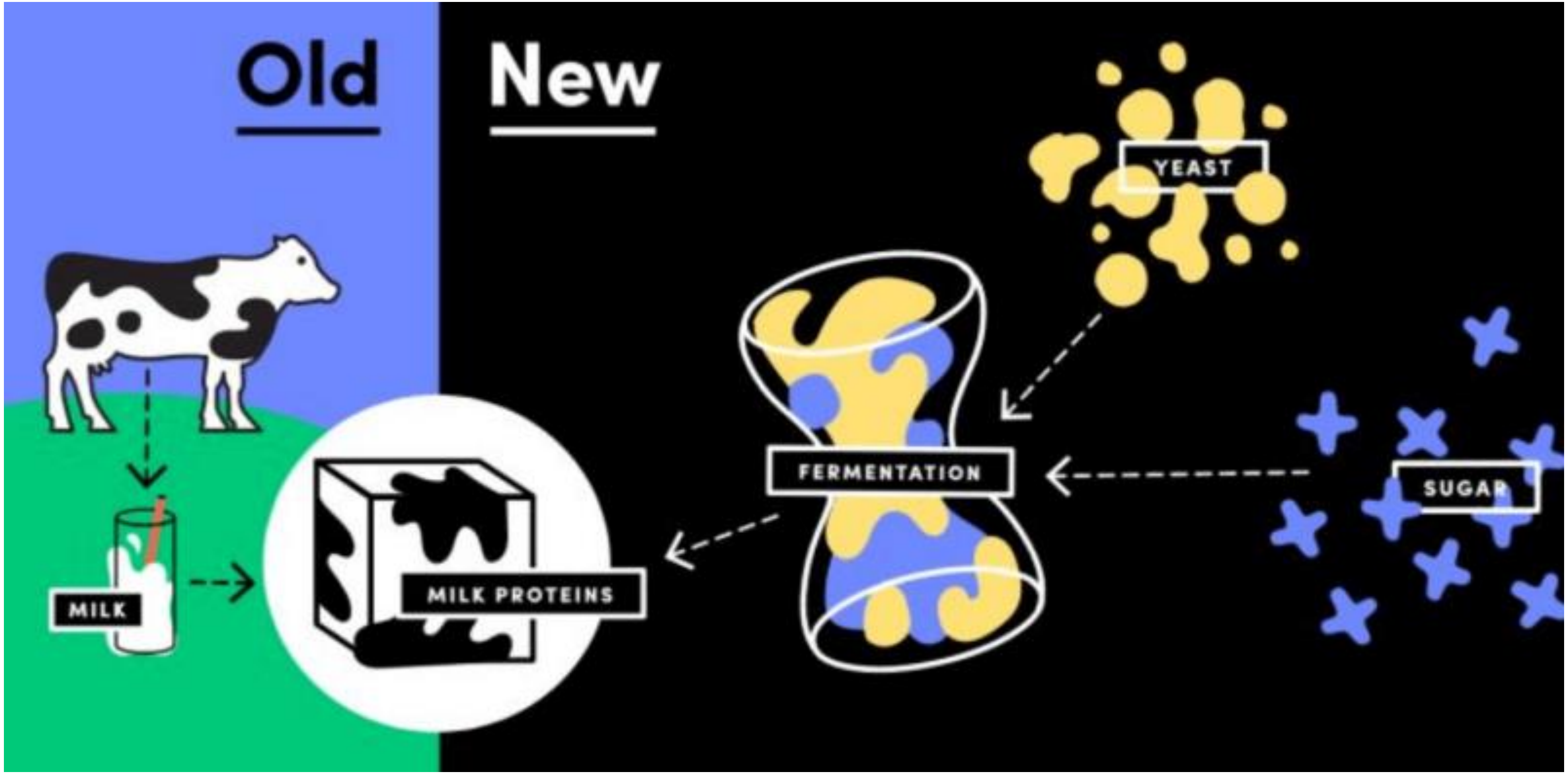


Milk is full of surprises !

Minor components, future added-value of milk!

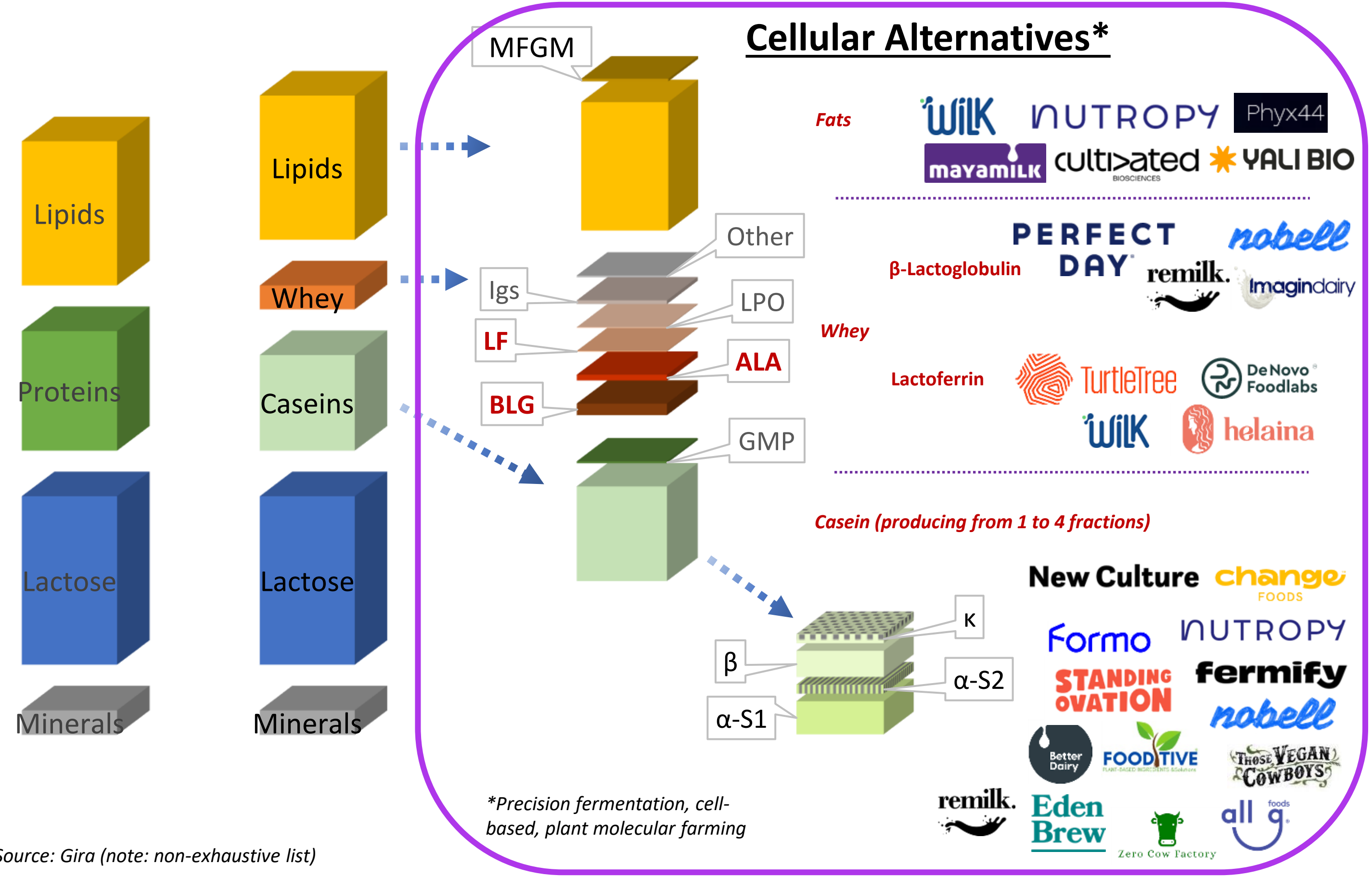


But watch out the next generation of ingredients that will come from precision fermentation!



Milk cracking: the door is open to cellular alternatives (PF)

Focusing on high-value ingredients without the burden of co-products



Source: Gira (note: non-exhaustive list)

2023-2024 developments

The sector is moving fast !

Gluten-free Upcycled Cake & Cupcake Mix (Perfect Day)

- 10x more sustainable than dairy whey
- Better for you and the planet too
- Easier to digest
- No hormones or antibiotics
- Lactose free
- No animal ingredients
- Lower water consumption
- 10x less GHG emissions than dairy whey

The EVERY Company to 'launch with multinationals' this year as it ramps up manufacturing capacity for animal free egg proteins

February 2, 2024 Elaine Watson

Yali Bio Announces 'World's First' Yeast-Derived Breast Milk Fat from Precision Fermentation

By Anay Mridul — Published on Feb 7, 2024 — Last updated Feb 7, 2024 FOOD & NUTRITION | FERMENTATION-BASED ALT PROTEIN | HEALTH

Partnerships

Arla
novozymes
GINKGO BIOWORKS
VIVICI
FrieslandCampina Ingredients
Triplebar

- Growing regulation approvals
  - US, CA & IS
  - Remilk, TurtleTree, Vivici, etc.
- Growing partnerships & capacity
- Creation of alliances between start-ups
  - Precision Fermentation Alliance – PFA
  - Food Fermentation Europe - FFE
- Release of LCAs (ex: Bon Vivant)

BUT

- Mitigated commercialisation:
  - Remilk & Generall Mills: started and stopped
- Declining investments
- Perfect Day business change

Checking the claim boxes
Example with Orgain

Better For You.
Better For The Planet, Too.

Special Limited-Batch! A Lactose-Free Fermented Whey Isolate Protein Powder is available now.

Price: 80$/kg ; 58.3% of proteins

Health

- ✅ Lactose-free
- ✅ Highly digestible
- ✅ Gluten-free
- ✅ Sugar-free
- ✅ Hormone-free
- ✅ Antibiotic-free
- ✅ Pesticide-free
- ✅ Complete amino acid profile

- ❌ Price (x2)
- ❌ Mass availability

Sustainability

- ✅ Animal-ingredients free
- ✅ 10x less blue water, & GHG emissions 1.5x less energy consumption than conventional whey

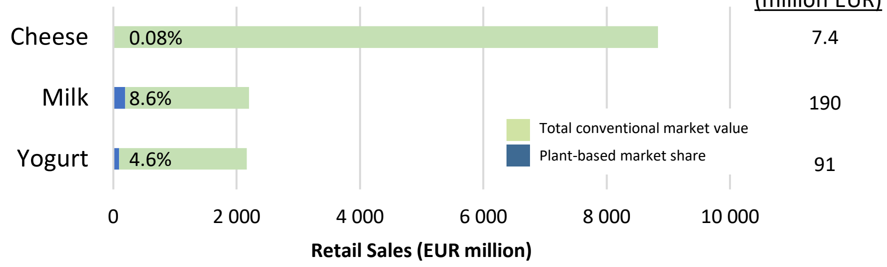
- Taste & texture ?
- « Contains milk-derived proteins »

Plant based alternatives

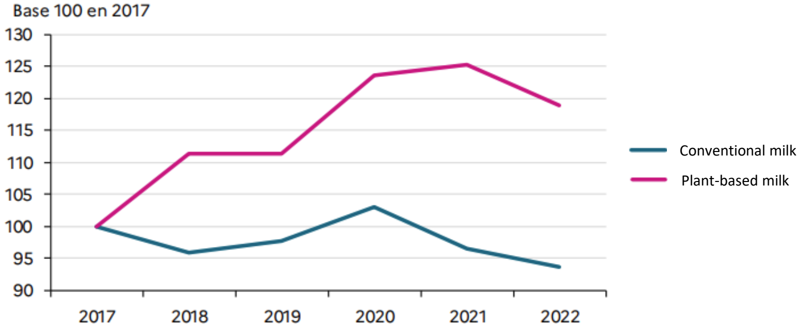
The French Example

Total growth remain positive in 2023 but slowing down

Retail Sales Share of Plant-based Products, 2022



Conventional and plant-based milk retail sales evolution, 2017-22



Source: FranceAgriMer, Kanta Worldpanel

What about 2023?

For total plant-based products in 2023 vs 2022:
Value sales: **+9.6%** (+17.7% since 2020)
Units sales: **+0.4%** (+7.9% since 2020)

Responsible consumption: volume evolution (23/22)

Organic	Equitable	Local	"Green"
-12.5%	-8.3%	-3.7%	-1.7%

Indulgence is leading innovations

Source: Circana, top sales of plant-based substitute innovation in 2023 (hypermarkets)

Dairy Alternatives: Product Failures in 2023

Taste, texture & price are still the main brakes

Dairy alternatives: General Mills shuts down Bold Cultr, Daiya to invest in fermentation

Nestlé's Plant-Based Brands Wunda, Garden Gourmet and Mezeast to Stop Retailing in UK Supermarkets

March 17, 2023

Has the vegan bubble burst? Sales stagnate in UK as brands withdraw plant-based products

- **Taste, texture & price** are still consumer brakes:
  - Competitive market conditions
  - Rising production costs (exacerbated by the conflict in Ukraine)
  - Economic slowdown, inflation limiting investments and purchasing power
- **General Mills**: de-prioritized *Bold Cultr* fundings and shut it down (cream cheese with proteins made through PF)
- **Nestlé**: withdraw its products from UK + IE markets (brands: *Wunda*, *Garden Gourmet*, and *Mezeast*)
- **Coca-Cola:** withdrawing its *Innocent* plant-based dairy drinks in the UK (which launched in 2018) due to poor sales performance.

New Products Developments

Improved nutrition

Califia Farms (US)

"Complete" is a premium product made with all 9 essentials amino acids, made with a blend of pea, chickpea, and fava bean proteins

Added functionality

Stockeld Dreamery (SE)

New "Melt" cheese line, made from the company's fermented legume milk (with a pea protein base)

Novel technologies

ANDFOOD (NZ)

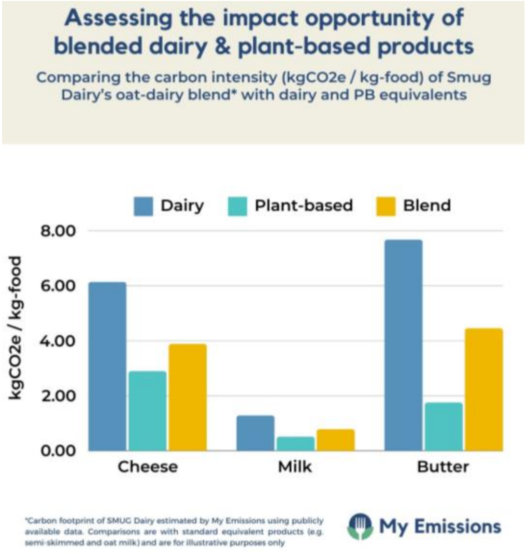
Fermenting pulses with high nutritional benefits and functional properties, while low carbon emissions. Claim to have "eclipsed all other plant-based creams" in testing, with 140% overrun

Sustainability & upcycling

Emmi & Coop (CH)

Using apricot kernel, helps to prevent food waste and reduce carbon emissions ; no added sugar, and is enriched with calcium and vitamins

Hybrids

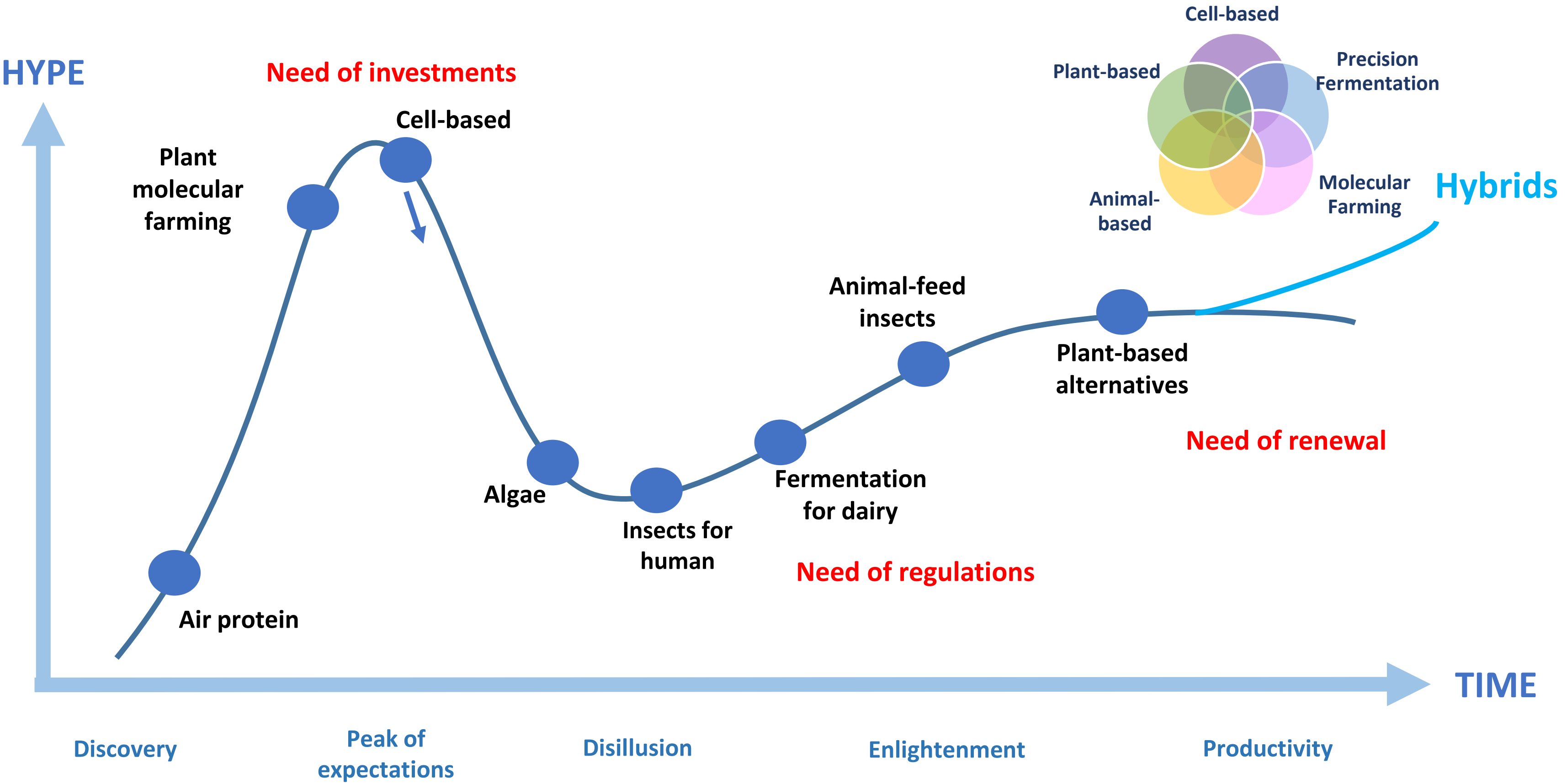


Kerry (US)

"SMUG Dairy": blended oat and dairy range of Cheddars, Milks and butter

So where are we now concerning new ingredients?

Various new technology developing new ingredients

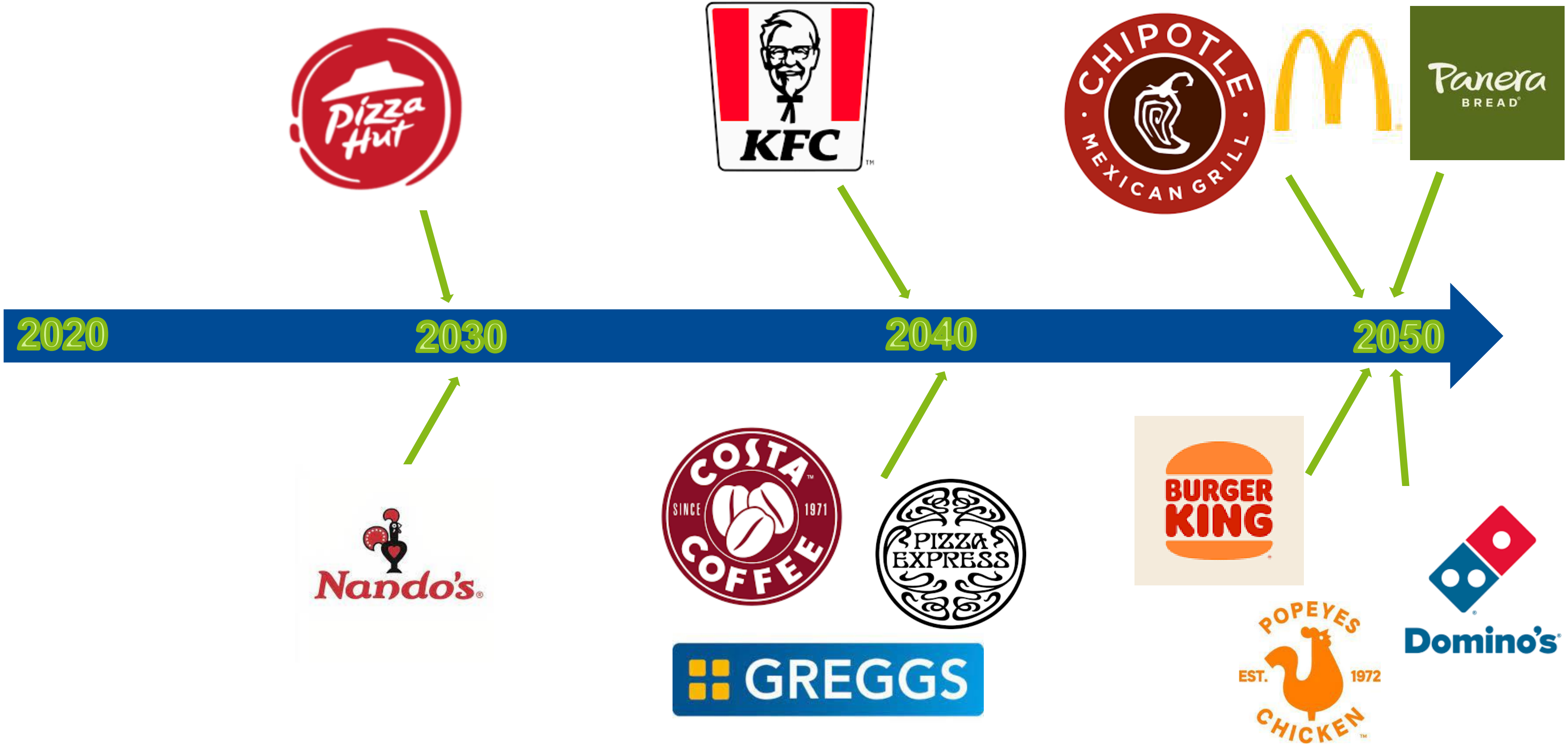


Source: Gira based on DigitalFoodLab

What about sustainibility?

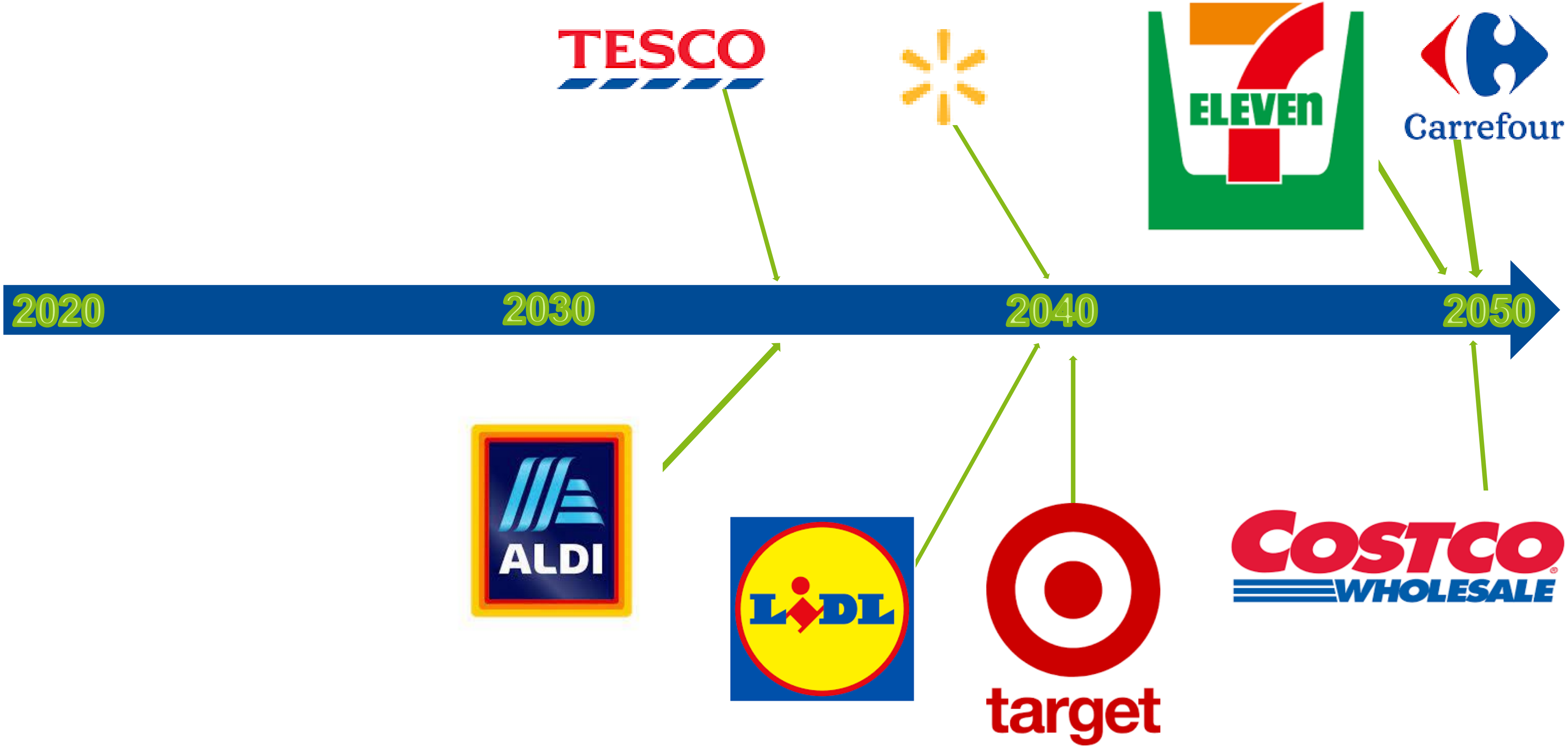
Restaurant Chains Net Zero Goal Date

Wide range of targets – will translate to action from production



Food Retailers Net Zero Goal Date

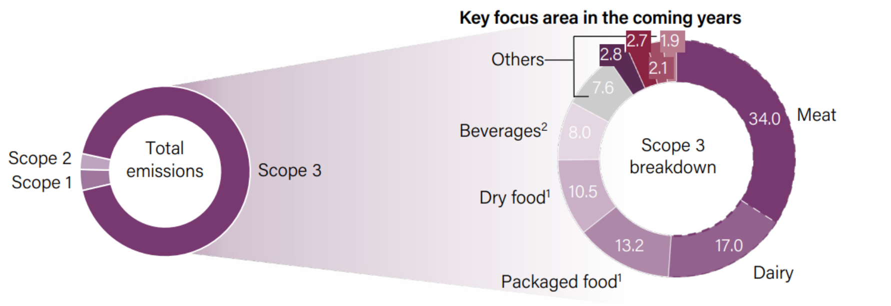
Retailers are still working on their policy delivery



Sustainability: scope 3 impact

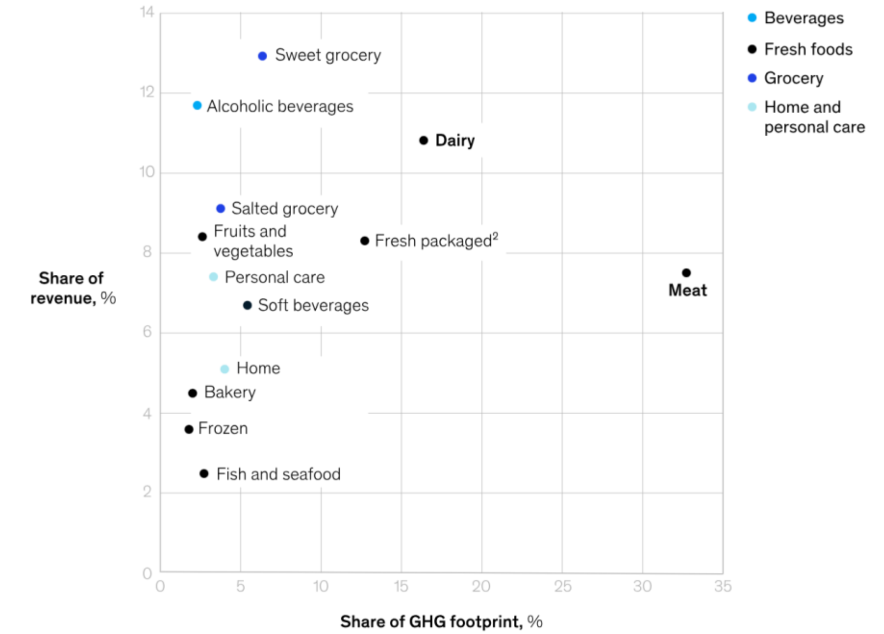
Meat&Dairy will increasingly be under pressure. Be prepared

Grocery Retail GHG Emission Breakdown, % of CO2e



[1] Processed meat, processed seafood and others (pizza, ready meals, soups, etc.).
[2] Both alcoholic and soft beverages.
Source: Euromonitor; Poore & Nemecek

Grocery revenue vs GHG footprint by category, 2021



[1]Revenue share based on average revenues of Western European grocers; share of greenhouse-gas (GHG) footprint calculated by multiplying category volumes with average GHG impacts per category.
[2]Processed meats, processed seafood, and others (pizza, ready meals, soups, etc).
Source: Euromonitor; Thomas Nemecek and Joseph Poore, "Reducing food's environmental impacts through producers and consumers," *Science*, June 2018, Volume 360, Number 6,392; McKinsey analysis

Source: McKinsey, State of Grocery Retail 2023: Europe

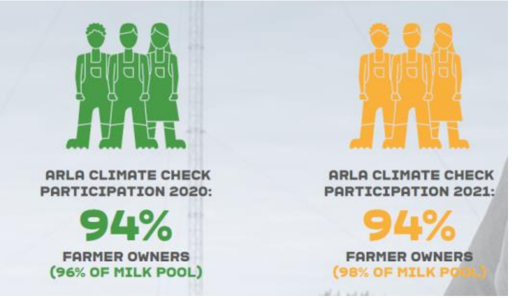
Final Thoughts

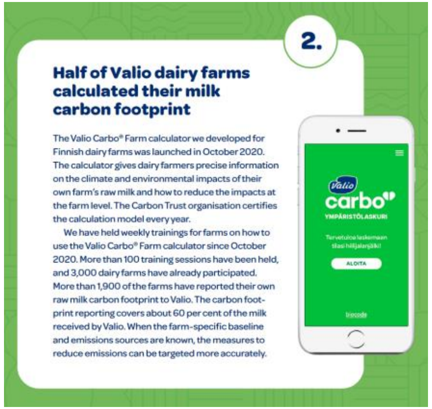
European dairy industry faces increased supply pressure

- Sustainability is a significant hurdle for the industry – current lack of clarity for long term investment, combined with generational shift, will drive a further EU production decline.

- Two major drivers for implementing sustainability
  - **Government regulation** – development of legislation and industry targets
  - **Customer demand**, both end user and major food brands but don't forget retailers

- Clear **need for urgent industrial action** to respond to climate change threats and other environmental challenges





Conclusions

Overview of key factors influencing the European dairy sector
In 2024 (vs. 2023)

Factors	Bullish	Bearish
Milk Supply	**Not expecting a lot more milk** EU: low. Watch out environmental constraints US: no growth S1 and slight growth in S2 NZ: stable	…But potentially a higher fat content in milk in the EU in 2024 Same situation in the US
Weather	El Nino (seems not to have any major impact so far in NZ)	
Logistics	**Cost of containers from EU to China could continue to push prices up.**	
Supply	**Butter: Potential lower production to absorb cheese facility production increase (Ireland)** **Low SMP supply**	**Potentially more from NZ (butter and AMF)** **Cheese: more production coming (mainly US)**
Demand	**Butter**: Still good demand in the bakery sector in the EU EU cream demand is positive. **SMP**: consumption is low in Europe but still growing in countries like Algeria/SEA **Cheese**: consumption is still growing in the EU but also around the world	**Butter**: Watch out the price increase: there is a strong price elasticity **SMP: Potentially low Chinese 2024 imports (no growth expected compared to 2023)** (to absorb strong 2023 stocks) **EU demand remaining low**
Oil Price (energy)	**Slightly higher** crude oil price (EIA forecasts)	

Key conclusions

- A lot more uncertainties than before
- Less milk within the key exports zone for the future
  - We need to give a “better future” to our dairy farmers
  - As more milk will be needed for the future
- Cheese will continue to be the winner: increase production but also consumption
- Dairy ingredients are now the key component of dairy processors profitability
  - Exported ingredients will be part of the solution for Estonia

- And don’t forget sustainability. Otherwise, retailers will wake you up

Should you require more infos please contact

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