



Key trends on dairy markets What could happen in the next few years?

a presentation for XI Dairy Olympics

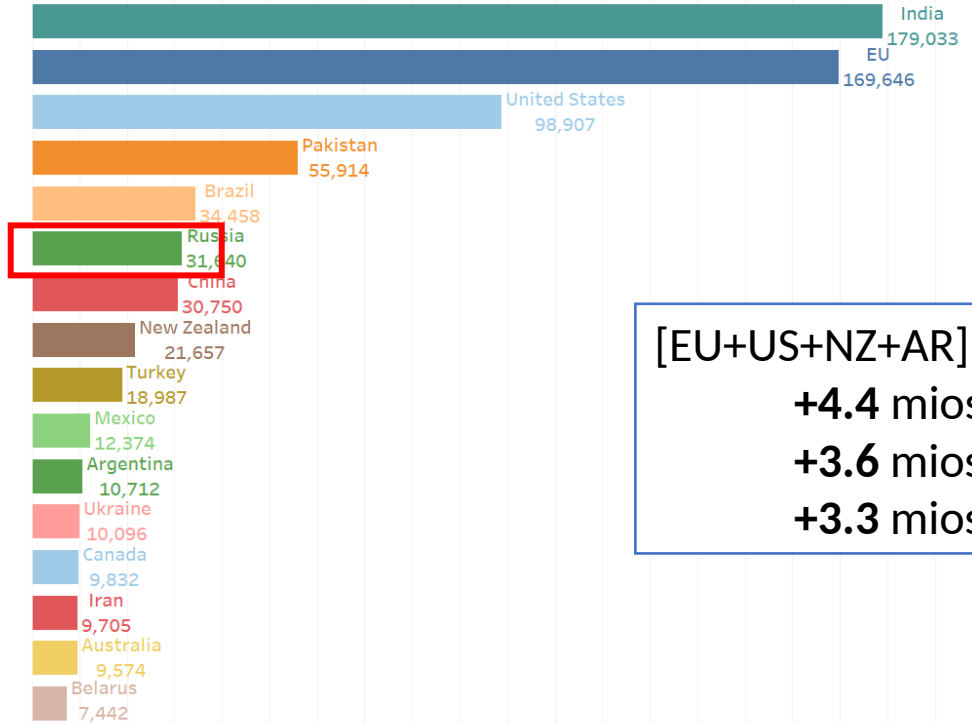
Christophe Lafougere, Gira

St. Petersburg, 27th of May, 2019

Top milk producers in 2018

India close to EU thanks to buffalo milk; Russia in #6 position

World Milk Production in 2018 ('000 tons)



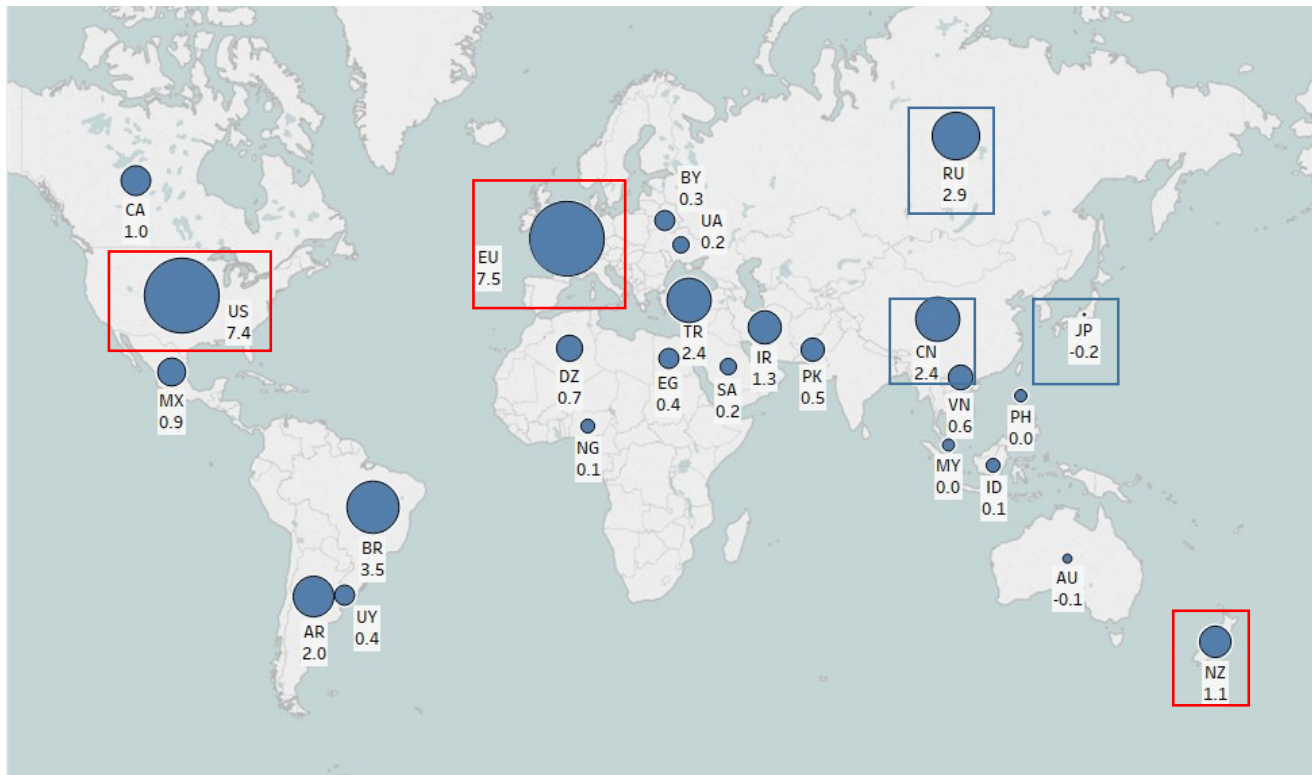
[EU+US+NZ+AR] Milk Collection Growth:
+4.4 mios tons in 2017/16
+3.6 mios tons in 2018/17
+3.3 mios tons in 2019/18

Source: Gira compilation
Indian figure includes 48% of cow milk (88.6 mio. tons) and 52% of buffalo milk in 2018.

Milk collection growth by 2023

EU & US far ahead; 2018-2023: +34,9 mio. tons

GDC World milk collection *change in total* in 2018 to 2023, in '000 tons

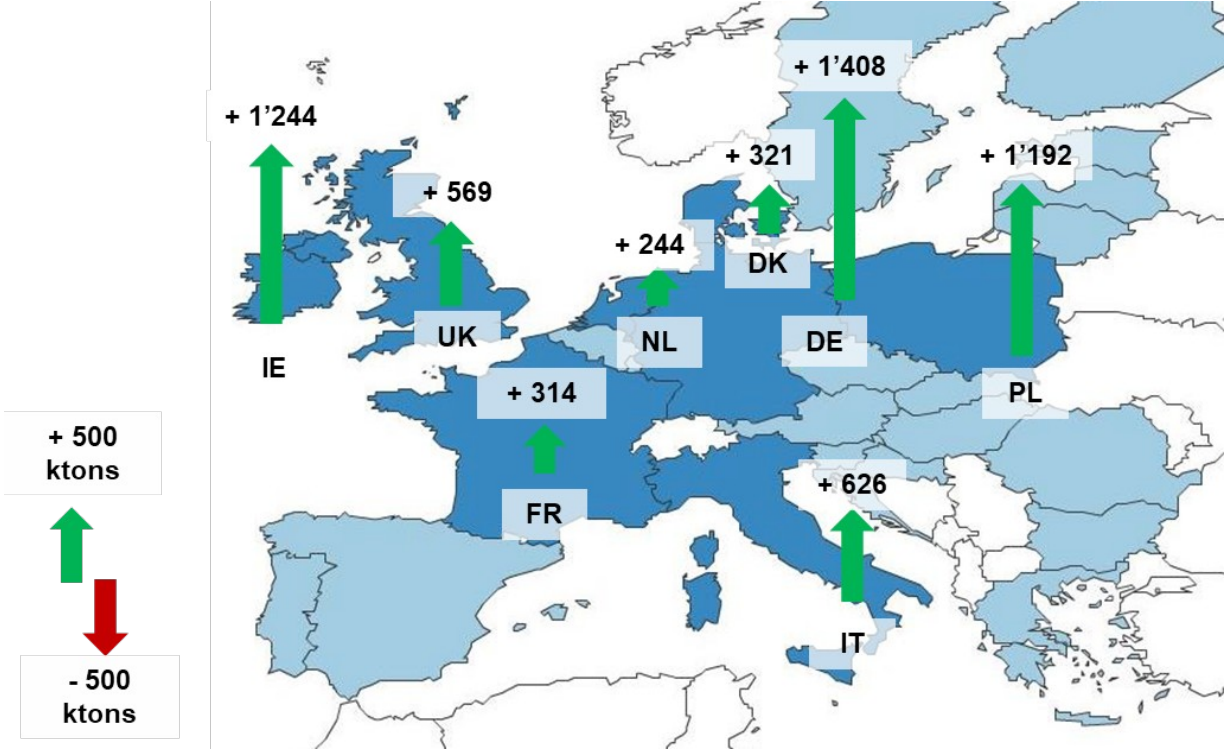


Forecast collection growth by 2023f cf. 2018: +1% CAGR

+7.5 mio tons expected; growth in all major countries



Growth of milk collection in the EU 2023/2018, ktons

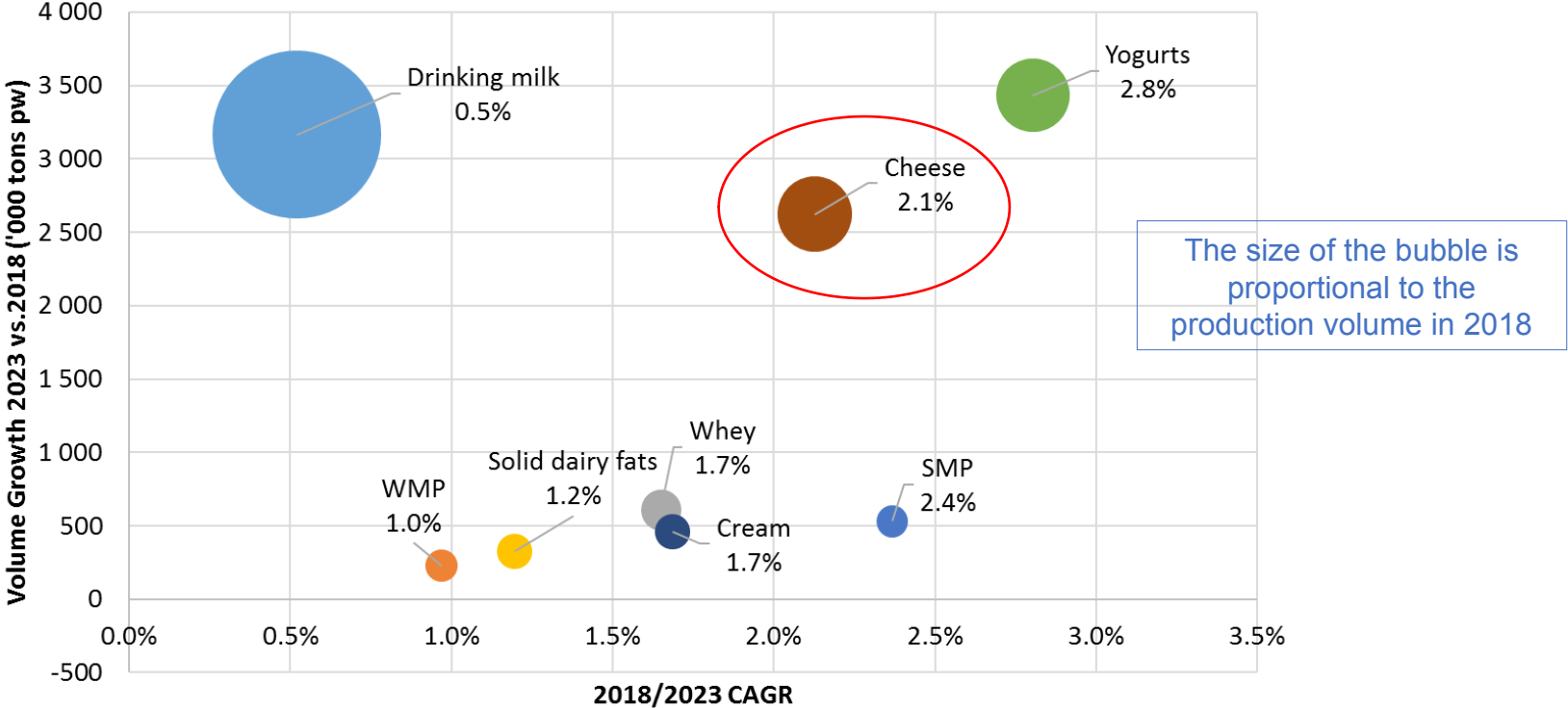


Production growth by main categories of products

Drinking milk is the only product with low growth for the future



Production Growth in GDC Countries (excl. India & Pakistan) 2023 vs. 2018

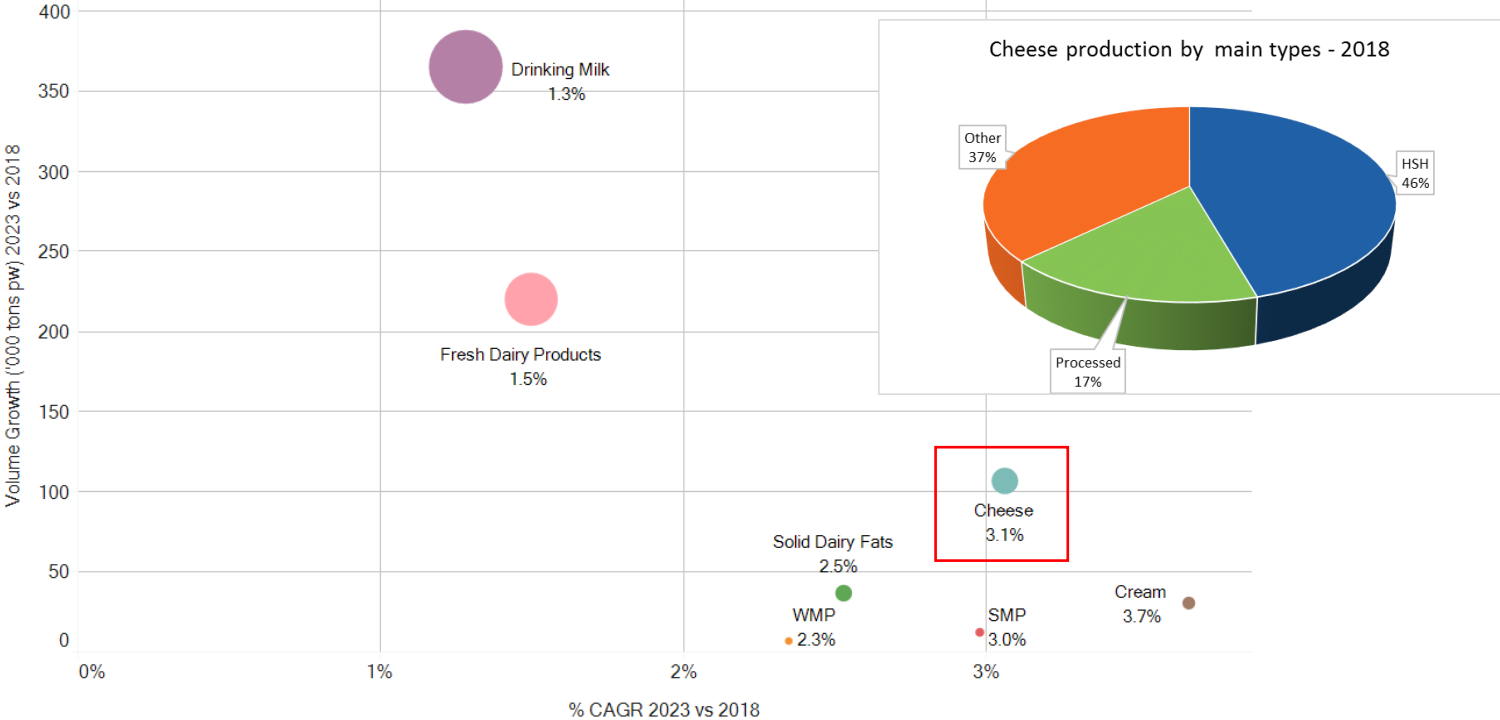


How this additional milk will be used in Russia?

Cheese production will continue to grow quickly: +107'000 tons in 5 years



Russia Commodity Production 2010-2023f

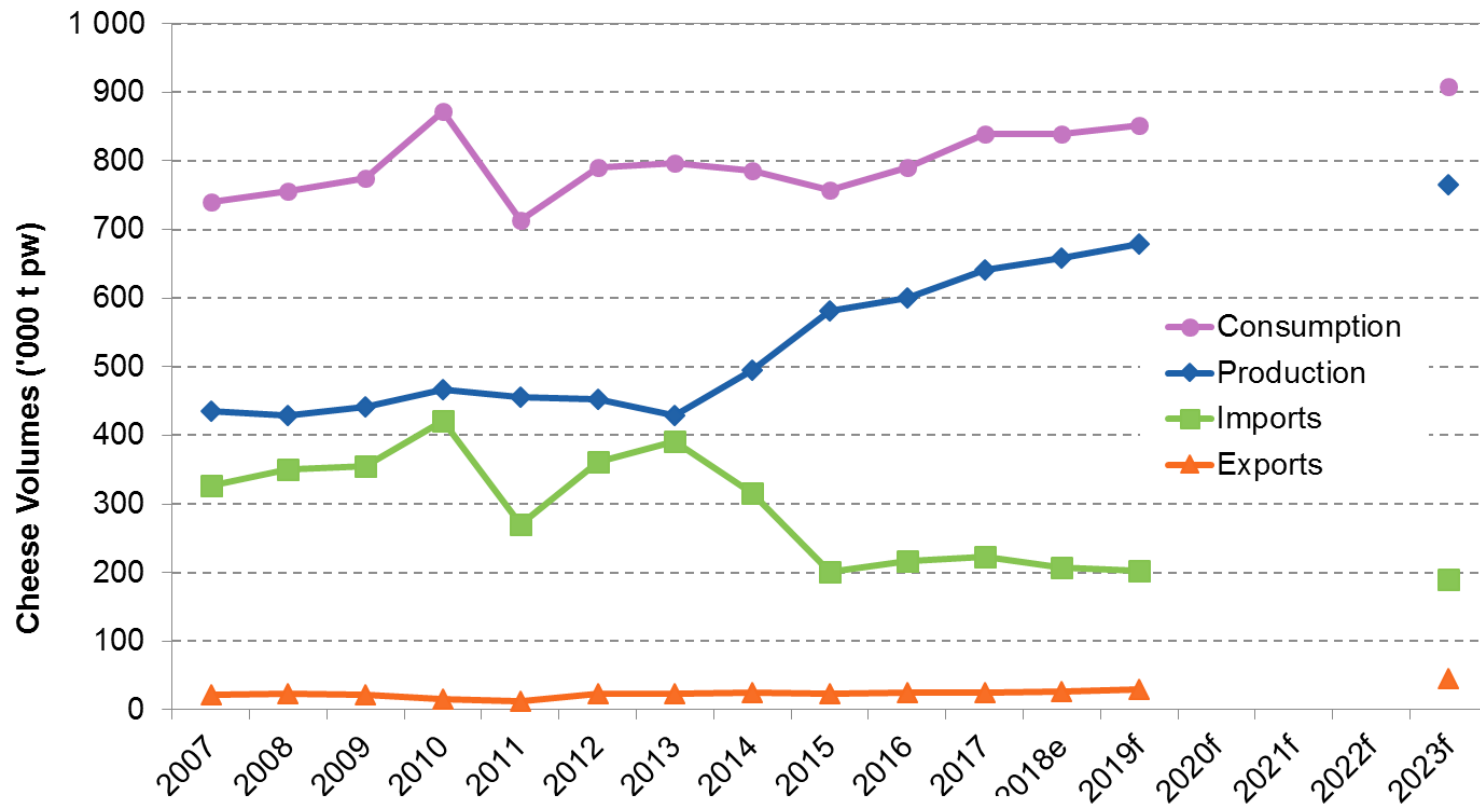


Source: Gira GDC18

Note: The size of the squares is proportional to the production volume in 2023.

Russian cheese balance

Imports should slow down (-1,8%) in the future due to increase production



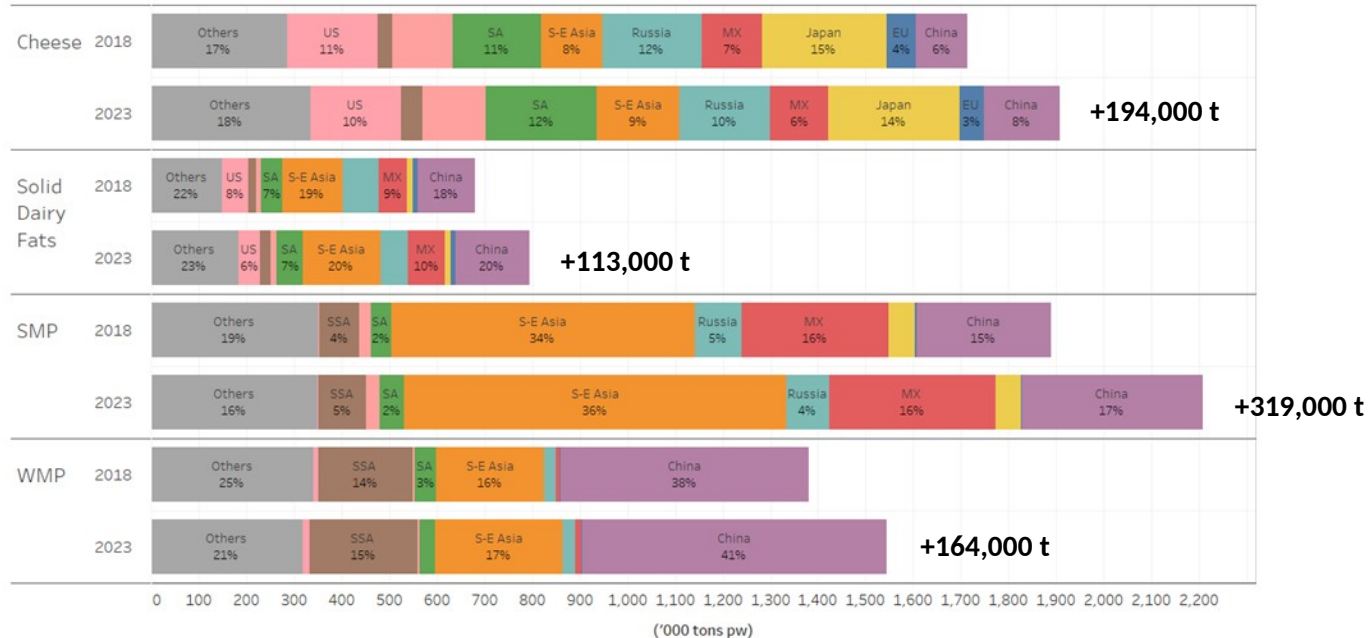
Source: Gira compilations, estimates and forecasts based on Rosstat, Trademap and other sources

Commodity Imports: Continued Growth

Still a lot of cheese and SMP will continue to be imported



Dairy Imports by Commodity and by Country (Excl. IN), 2018-2023



Source: Gira GDC18. Note: India was excluded.

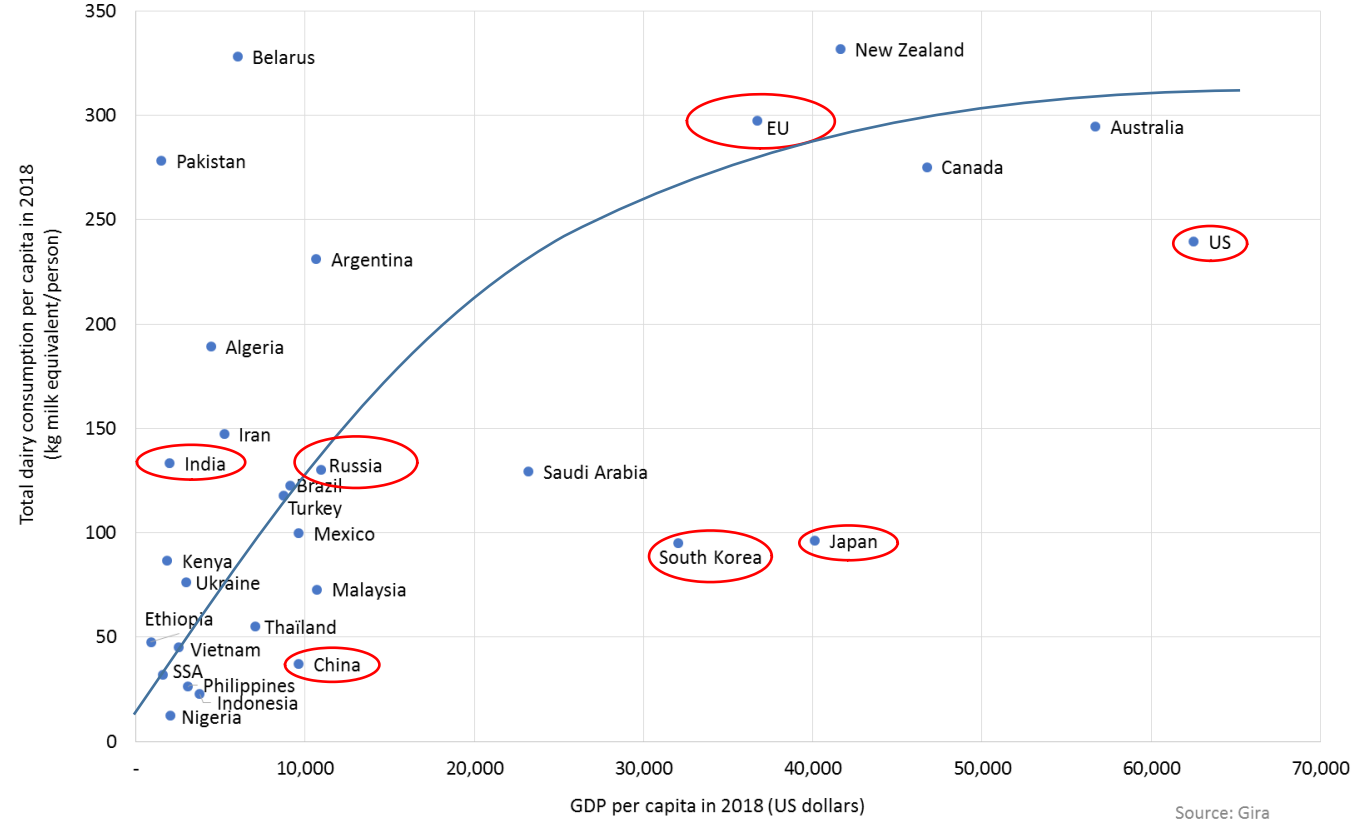
What about dairy consumption?

Per Capita Dairy Consumption

Russia still got some potential for growth!



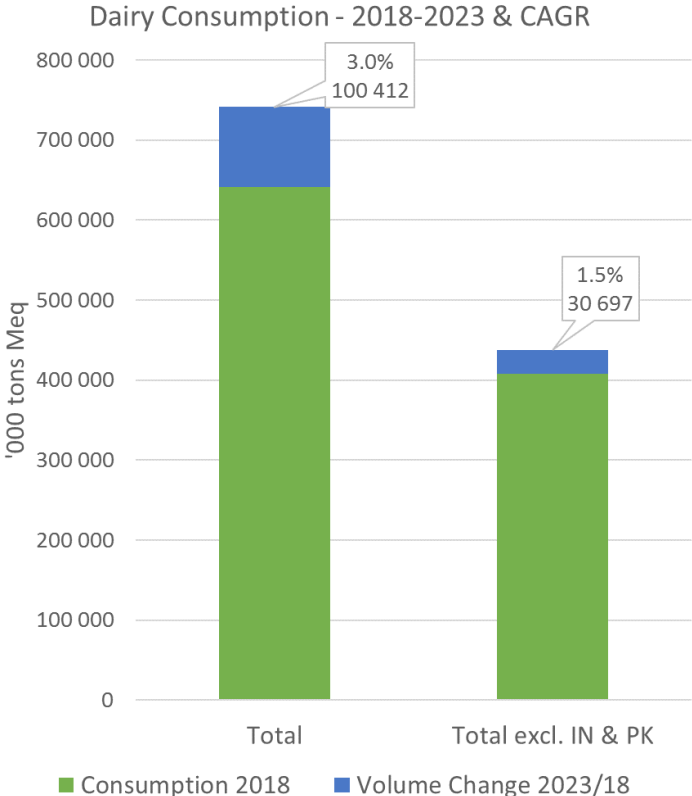
Per Capita Dairy Consumption, 2018



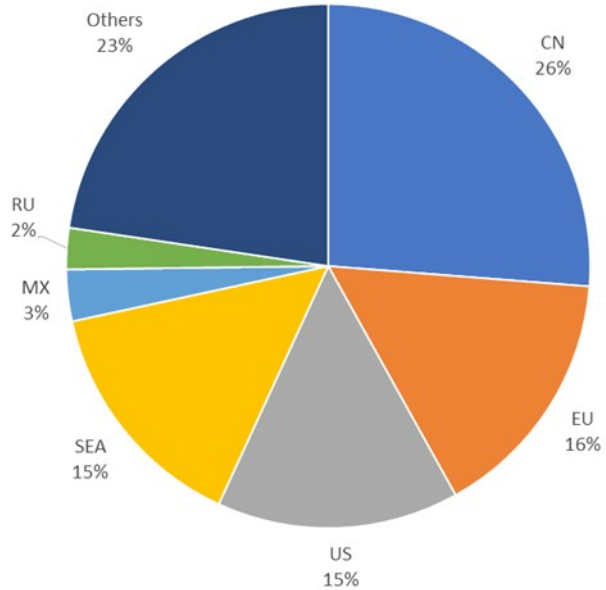
Source: Gira

Dairy Consumption Change 2018-2023

CAGR 18/23: +3.0%



Contributions of GDC Countries to Consumption Change Between 2018 & 2023 (excl. IN & PK)



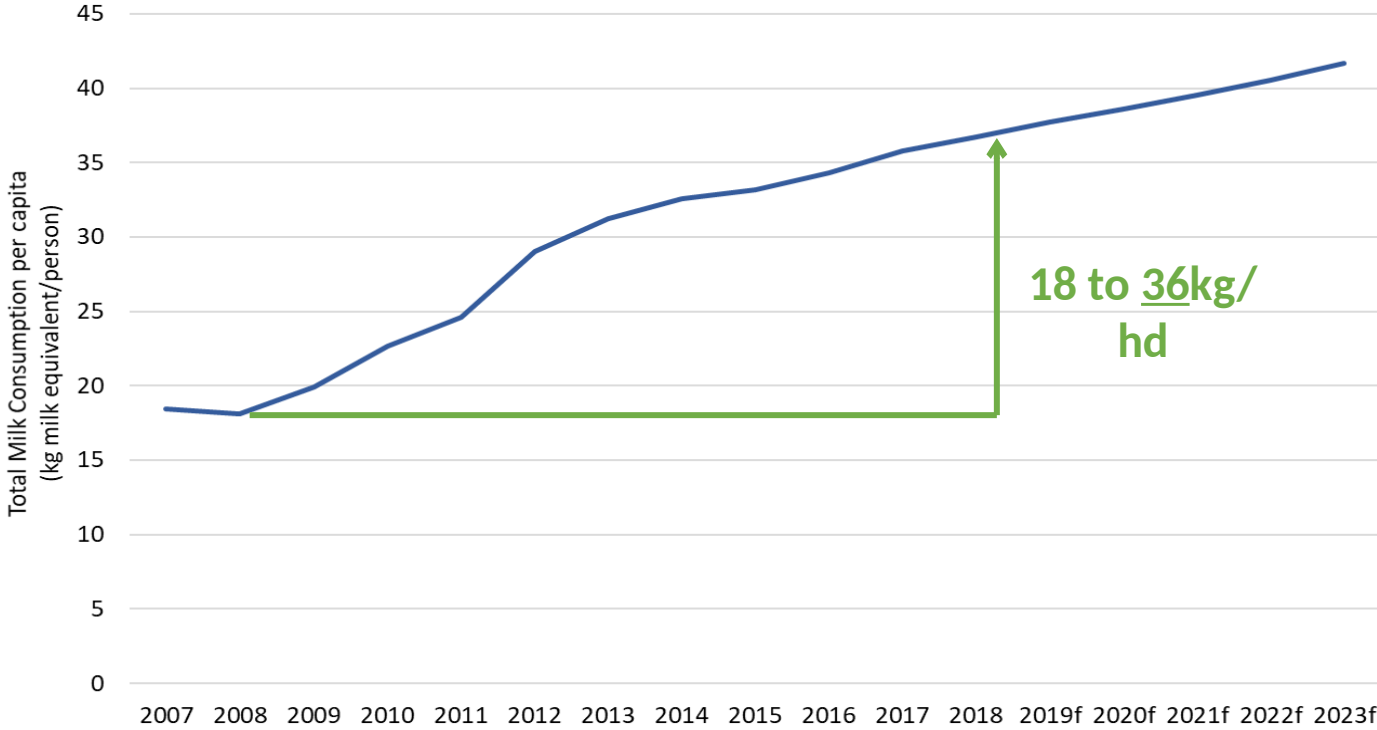
Source: GDC 18

Chinese Per Capita Dairy Consumption

Consumption doubled in 10 years



China total dairy consumption per capita between 2007 and 2023

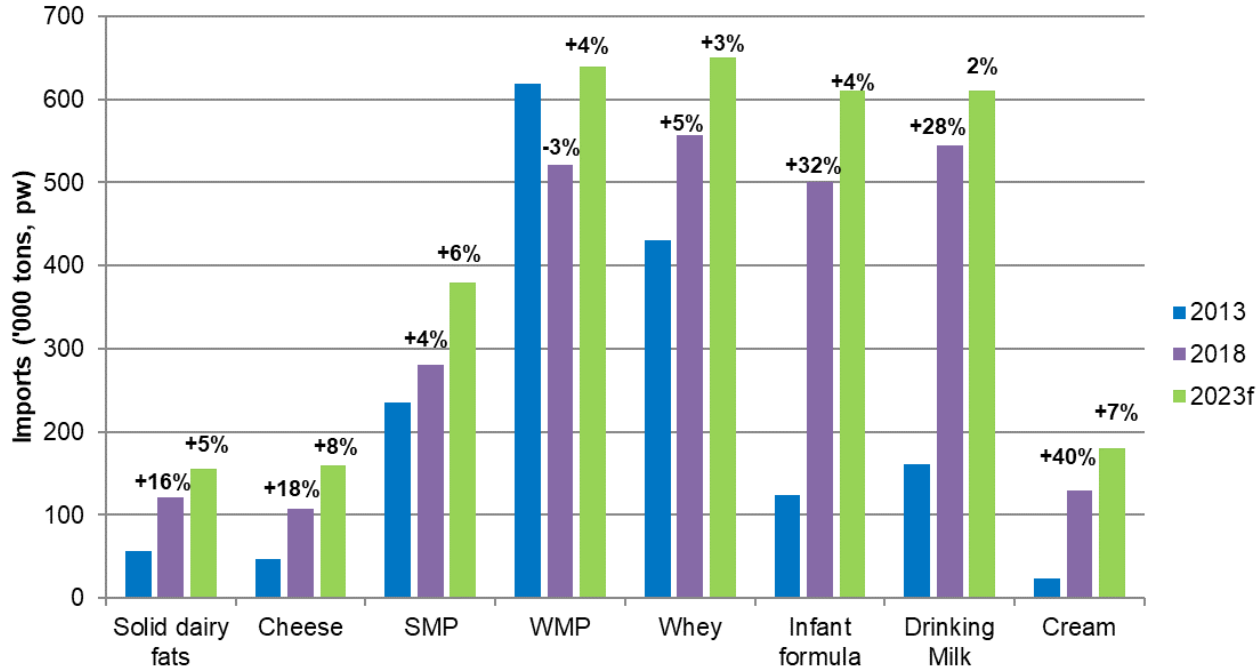


Source : GIRA GDC

The Impact of Chinese Demand

Unstoppable consumption growth ... and imports

Chinese Imports of Dairy Products, 2013-2023f



Source: Gira Dairy Club

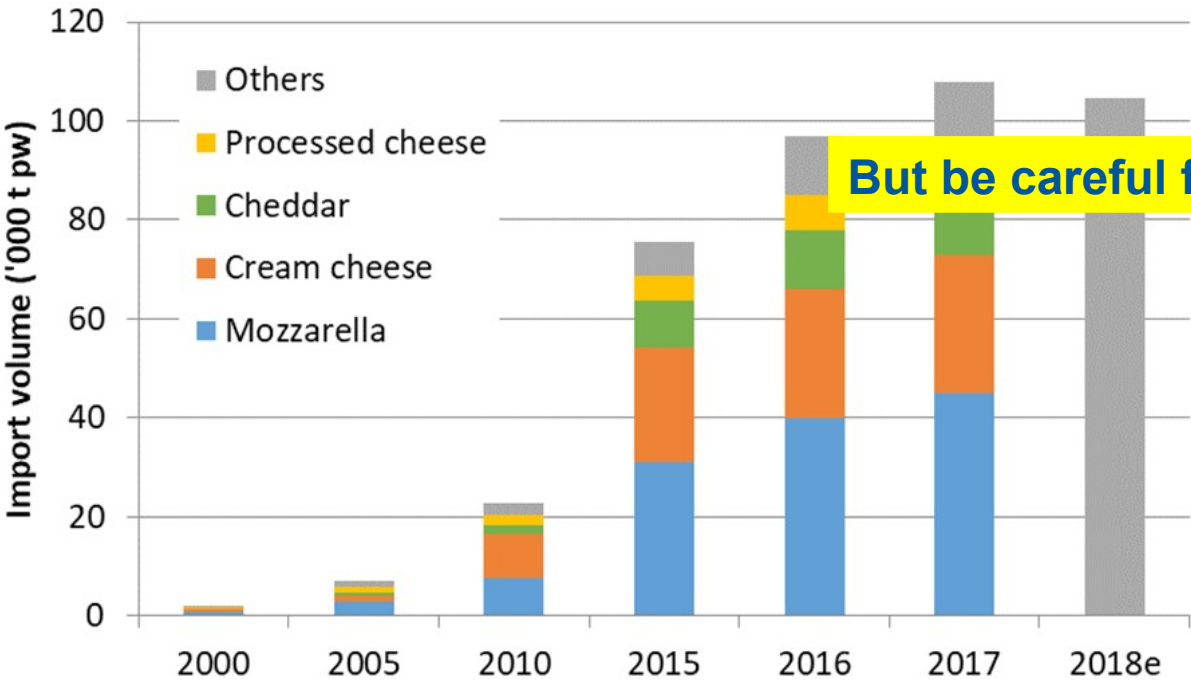
WMP & SMP imports are expected to grow steadily

China Cheese imports

Mainly mozzarella (pizzas) and cream cheese (bakery, tea shops)



Estimation of Cheese Imports by types



Source: Gira based on trade interviews

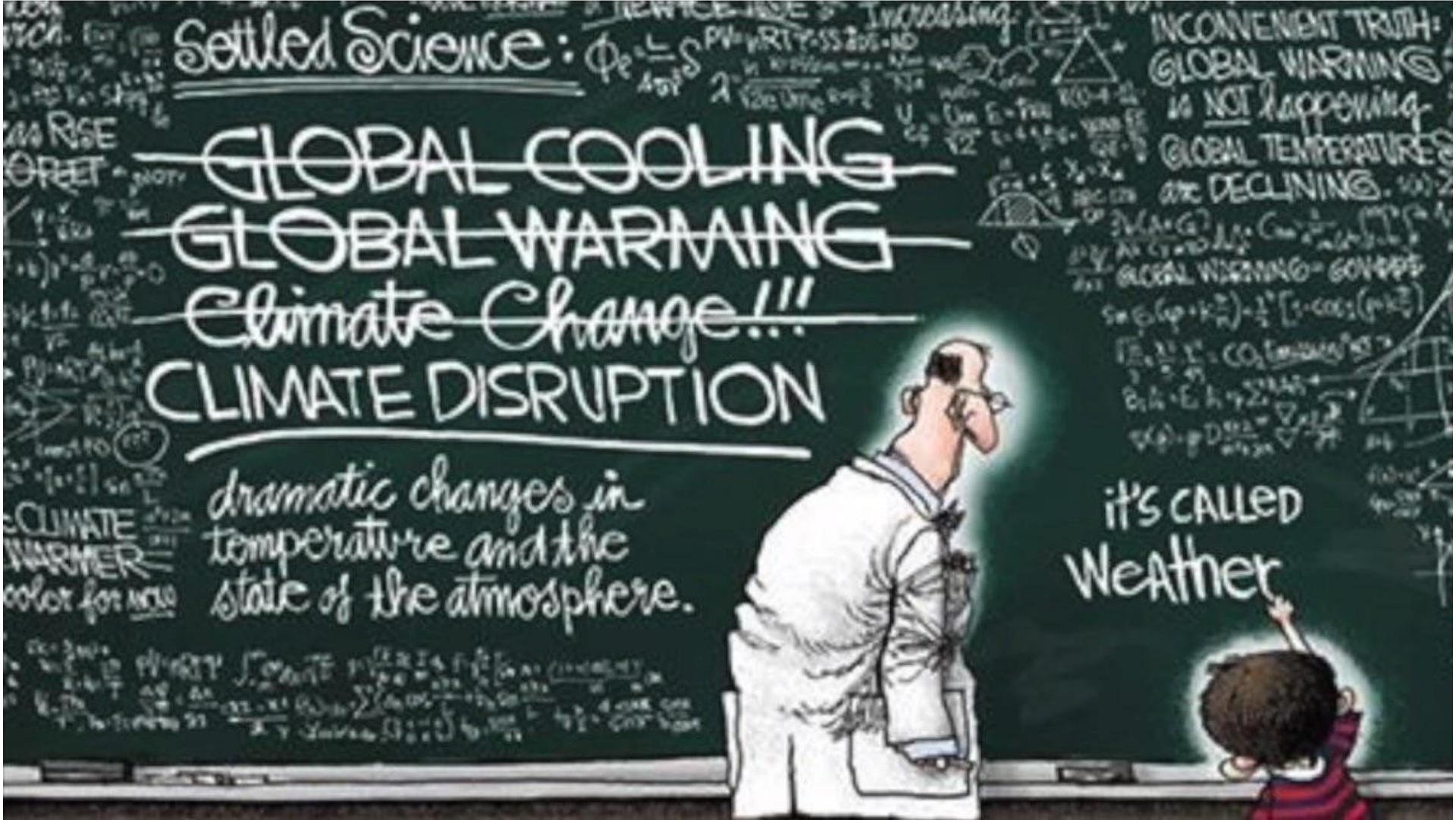
Some key trends for dairy for the future

Settled Science:

~~GLOBAL COOLING~~
~~GLOBAL WARMING~~
~~Climate Change!!!~~
CLIMATE DISRUPTION

dramatic changes in
temperature and the
state of the atmosphere.

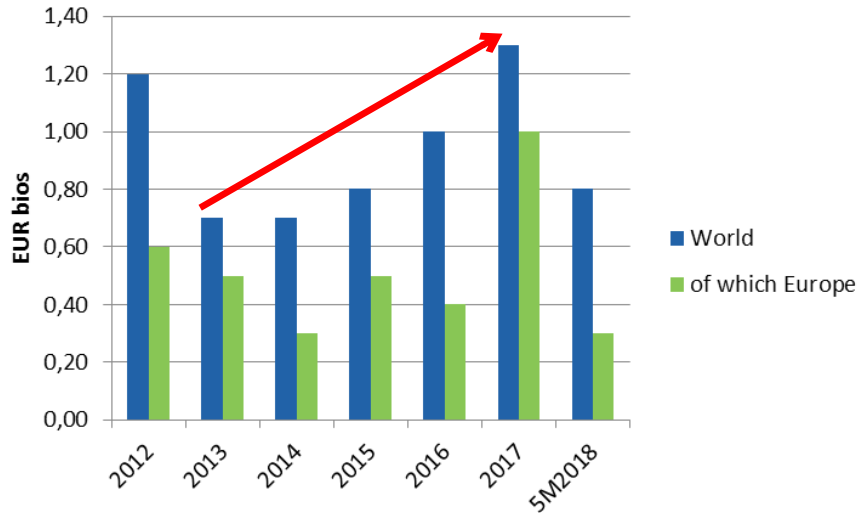
it's called
Weather



Investments in cheese are accelerating: more & more cheese

Mainly in the US/EU but also some large projects in Russia

Investments* in Cheese 2012-2018



- USA: **Glanbia plc, DFA and Select Milk Producers** plan to build a cheese plant with 135 000 t capacity in Michigan.
- US: **Agropur** has invested EUR 170 mios in its Lake Norden (South Dakota) mozzarella plant. Capacity = 4 mios l processed per day.
- EU: 2 new mozzarella plant in ROI for **Glanbia**
- Russia: **Eko-Niva** after a first plant in Voronezh is starting to build a large plant in Novosibirsk (EUR 240 mios).

* Investments and

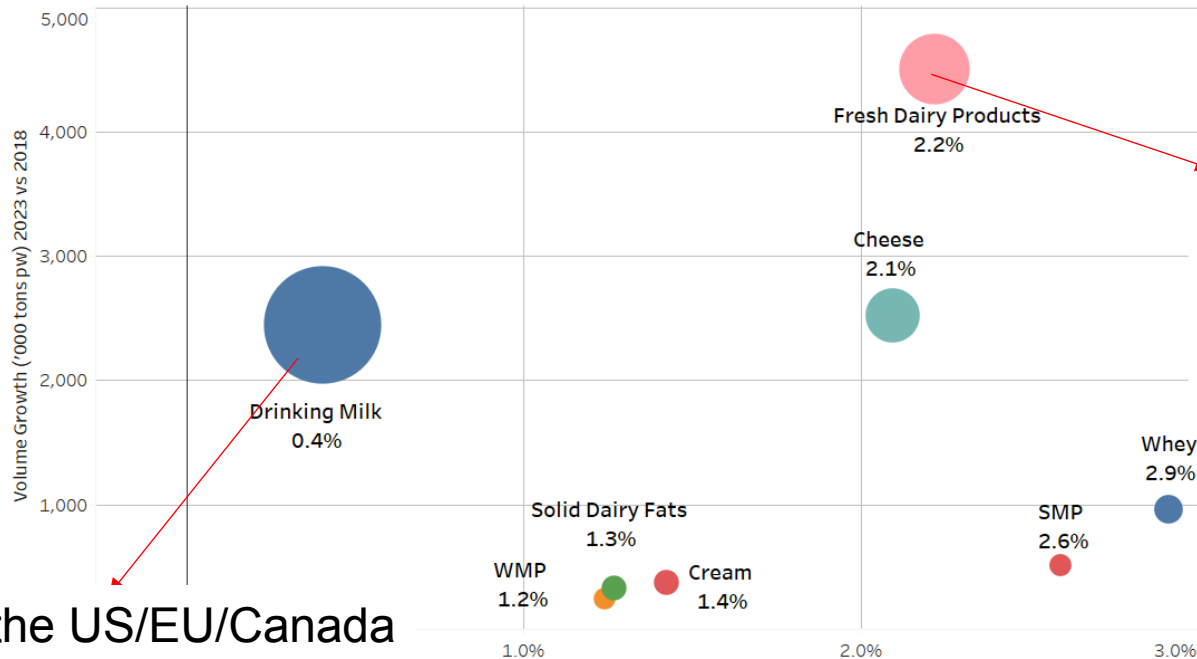
Are we going to produce too much cheese/mozzarella?

Consumption Growth: Some key challenges in 2 major categories



Are we going to have too much milk in the future?

Consumption Growth in GDC countries (excl. IN& PK) 2023 vs 2018



Negative in the US/Canada
No growth in the EU

Negative in the US/EU/Canada

What do we do to change that trend?

Source: Gira GDC18

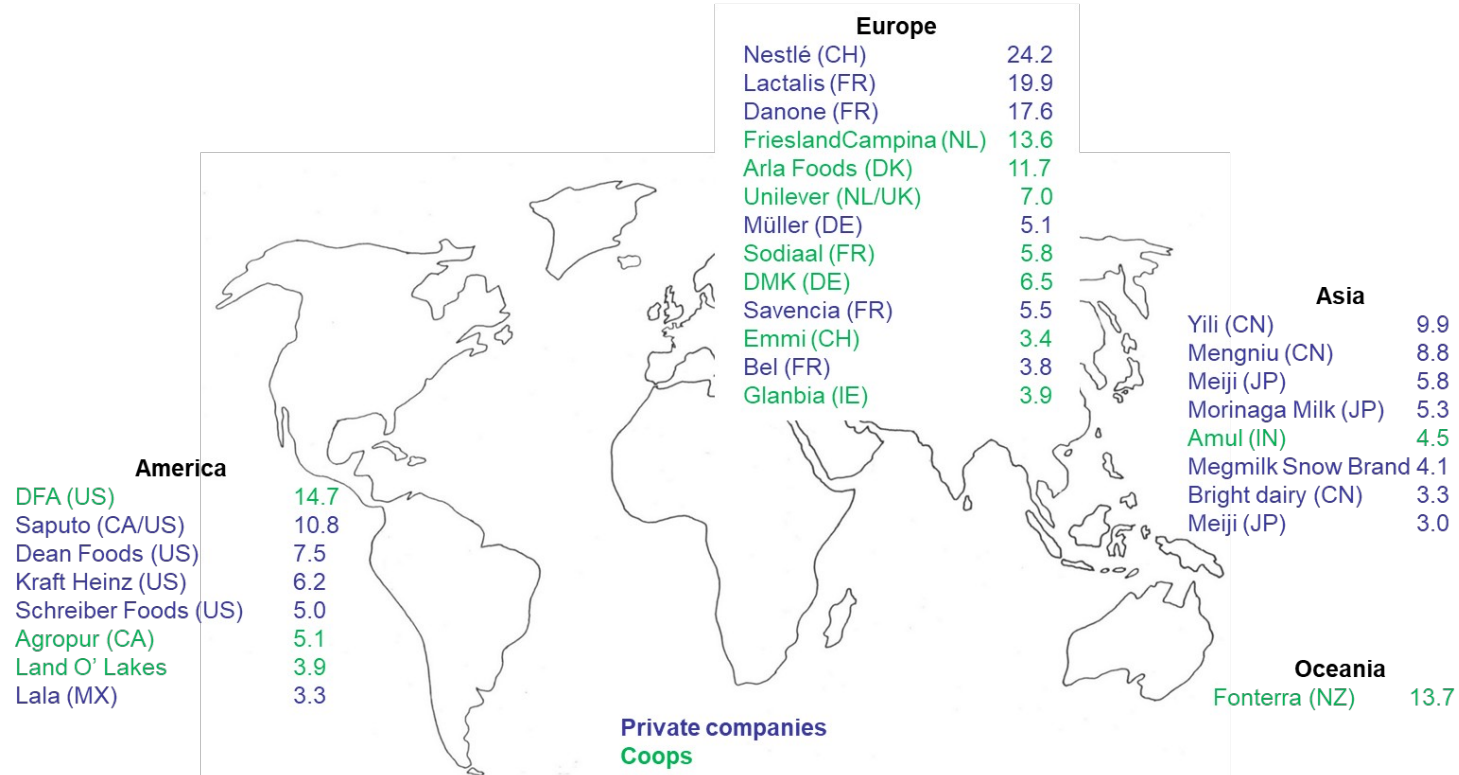
Notes: 1. The size of the squares

More and More Mega-dairies

Dairies in and outside of Europe have become much bigger

In 1996, 11 groups had a turnover > USD 3 bios, mostly EU.

In 2018 there were around 30 with sales > UDS 3 bios, spread all over the world

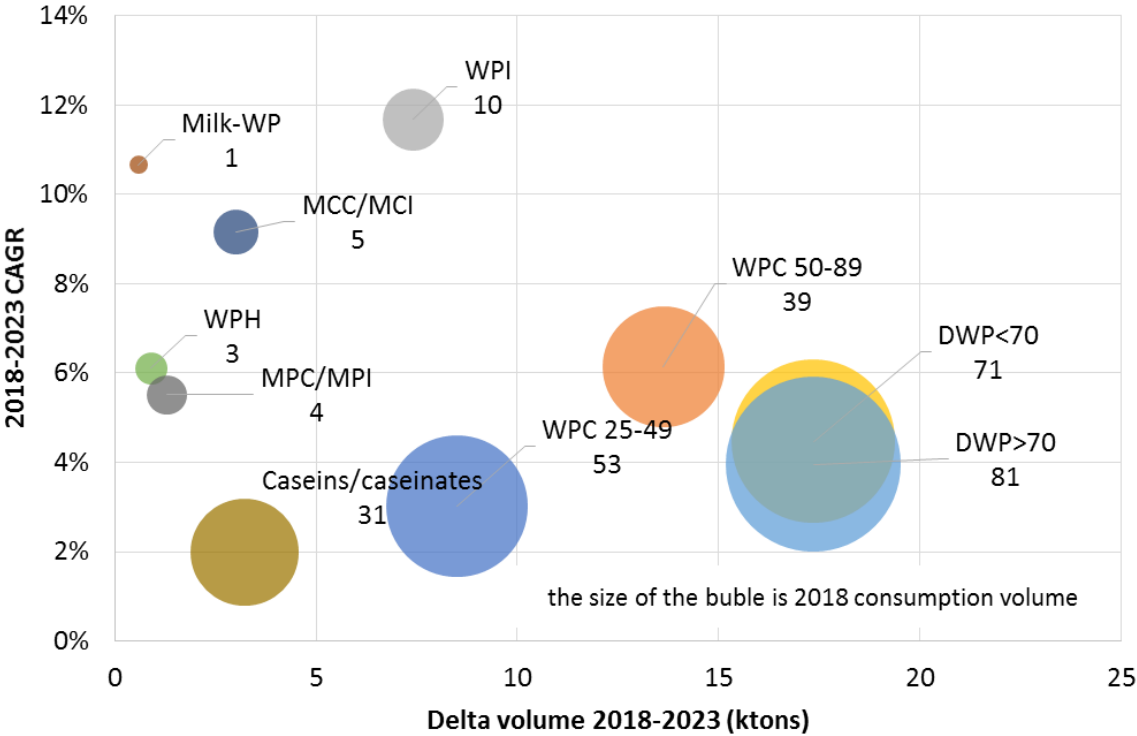


Adding value to the whey is crucial for your balance sheet

Demand for added value technical dairy ingredients will continue to grow



Chinese consumption of technical dairy ingredients



Politics, Economics and Food Make Uncomfortable Bedfellows

Agility and flexibility will be the key to success

2014

2015

2016

2017

2018

2019...



The Russian Imports Embargo

The China Powders Roller-Coaster



The President Trump Show... NAFTA



China-US Trade War



The BREXIT day of reckoning



So What Might it all Mean?

- ✔ Milk production will continue to grow (but at a lower rate) in the traditional exporting countries.
 - However, it will never coincide exactly with demand growth. Price volatility will continue
- ✔ Russia will continue to produce more milk in the future
 - What about export?
- ✔ More trade challenge in the future with potential impact on dairy markets
- ✔ China will become more and more the engine of the growing dairy world, but the EU and the US will also continue to contribute to the growth
 - What China really needs in terms of dairy products?
 - What Russia will be able to offer?
- ✔ Cheese will continue to attract more milk but for which kind of “cheese” and for which markets?
 - More and more to food service and industry
 - Adding value to the whey will become even more crucial
- ✔ The concentration of the dairy sector will continue: less but bigger companies
- ✔ Ensuring it adds maximum value to each litre of milk can only increase in importance for every dairy.
 - Margins are decreasing for the whole sector and not only for dairy coops

THANK YOU



Our long-term future?