



LE SFIDE GLOBALI DEL SETTORE LATTIERO CASEARIO: COME AFFRONTARLE ANCHE GRAZIE AL SUPPORTO DELLA FIL-IDF

PIAZZOLA SUL BRENTA
30 NOVEMBRE 2025

If the World's 2 Billion High Consumers Cut
Their Meat and Dairy Consumption by 40%...



wri.org/shiftingdiets

 WORLD RESOURCES INSTITUTE

SUSTAINABILITY

Why planet-based diets are key to meeting agricultural emissions goals

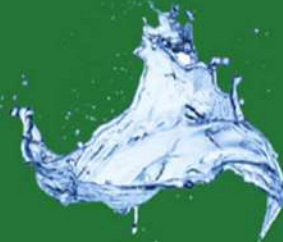
Shifting diets away from meat and dairy to plant-based protein will be vital in driving down greenhouse gas emissions from agriculture but does a broader concept of a "planet-based diet" hold the key to achieving reductions consistent with the Paris climate goals? **Ben Cooper** explores the implications for food companies.



EVERY DAY YOU ARE
VEGAN YOU SAVE

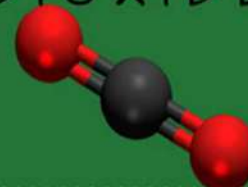
12,492
LITRES OF
WATER

8 SQUARE
METERS OF
FOREST



27 KG OF
CARBON
DIOXIDE

54KG OF
GRAIN



3 ANIMALS
LIVES.



BE KIND. EARTH FRIENDLY. HEALTHY

@VEGANDIVERKATT

WWW.MYVEGANEXPERIMENT.COM

uses 70% of fresh water



generates 24% of GHGs



uses 33% of land area



uses 30% of global energy



... But feed 100% of us

MANGIAMO ALIMENTI DI ORIGINE VEGETALE E ANIMALE



GLI UMANI SONO ONNIVORI



Food and Agriculture
Organization of the
United Nations

SUSTAINABLE
DEVELOPMENT
GOALS



They're a solution or they're a problem!





Responsible Dairy Use
Recycling & Reuse
Waste Reduction Impact



Organic Feed Growth
Minimized Chemical Use
Enhanced Soil Fertility



Free-range Grazing
High Welfare Standards
Genetic Resilience Focus



Green Supply Chains
Sustainable Product Demand
Eco-friendly Market Impact



Renewable Energy Use
Efficient Milking Practices
Reduced Carbon Emissions



Sustainable Dairy Processing
Eco-friendly Packaging
Energy Efficient Storage

1 NO POVERTY



- Many rural areas rely on dairy production and processing for their income

2 ZERO HUNGER



- Dairy products are naturally nutrient dense foods, supplying significant amounts of high-quality protein and micronutrients, including calcium, magnesium, selenium, riboflavin, and vitamins B5 and B12
- Animal by-products can be used as fertilizers for crop production

3 GOOD HEALTH AND WELL-BEING



- Dairy products provide essential nutrients, especially for adolescents, women of reproductive age and the elderly
- The dairy sector also ensures the good health and well-being of its animals
- Dairy intake is associated with a decreased risk of type 2 diabetes and colorectal cancer

4 QUALITY EDUCATION



- A healthy diet, of which dairy is key, is vital for a person's learning capacities
- Dairy production provides incomes that can support education

5 GENDER EQUALITY



Milk production supports women empowerment.

6 CLEAN WATER AND SANITATION



- Dairy livestock can contribute to the protection of water quality through grazing
- In dairy manufacturing plants, the reuse of water provides opportunity to significantly reduce the stress of water availability in certain parts of the world and/or under certain environmental circumstances.

7 AFFORDABLE AND CLEAN ENERGY



- Dairy production can provide an alternative to fossil fuels, such as the recycling of manure

8 DECENT WORK AND ECONOMIC GROWTH



- The dairy sector from farming through processing and distribution provides socially just and economically rewarding opportunities for owners, managers, workers and the communities in which they live.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



- The entire dairy value chain, from production, processing to retail, provide valuable inputs
- There is an increasing amount of innovation in the sector

10 REDUCED INEQUALITIES



- Dairy production is a source of income, creates employment opportunities and provides market participation

11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



- Wastes and losses along the dairy production chain are still relatively high (of 1 l milk, 100ml - 250 ml is wasted, depending on the region)
- The dairy sector is has been a major stakeholder in food waste reduction initiatives

13 CLIMATE ACTION



- The dairy sector is a significant contributor to global Greenhouse gases emissions (2.7%)
- Dairy producers have been the forefront of developing and implementing more environmentally friendly practices

15 LIFE ON LAND



- Efficient grazing management can contribute to grassland restoration, carbon sequestration in soils and can reduce deforestation through agroforestry
- Ruminant grazing can turn unusable peripheral land into high quality protein for human consumption

17 PARTNERSHIPS FOR THE GOALS



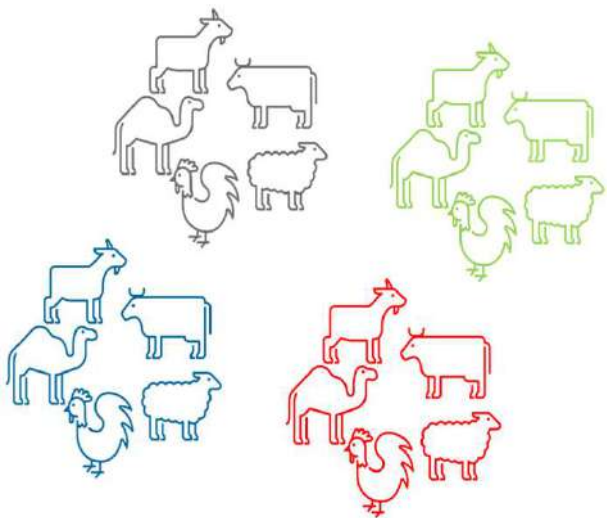
- The dairy sector stakeholders have come together under the Global Dairy Agenda for Action (GDAA) and created the Dairy Sustainability Framework, a roadmap towards greater sustainability in the sector

CONTRIBUTION GLOBAL DAIRY SECTOR TO SUSTAINABLE DEVELOPMENT GOALS

What do we want to achieve?



Sustainable Livestock Transformation Initiative



Sustainable livestock sector that ***satisfies global demand*** for animal source foods and other animal products, ***distributes benefits equitably***, and ***contributes positively to the environment*** while ***using natural resources efficiently and sustainably***.





IDF WDS DAEJEON 2018
Dairy for the Next Generation!

IDF WDS DAEJEON 2018

Milk is Perfection

Milk is critical and essential for international efforts to combat poverty and hunger.



THE GLOBAL GOALS

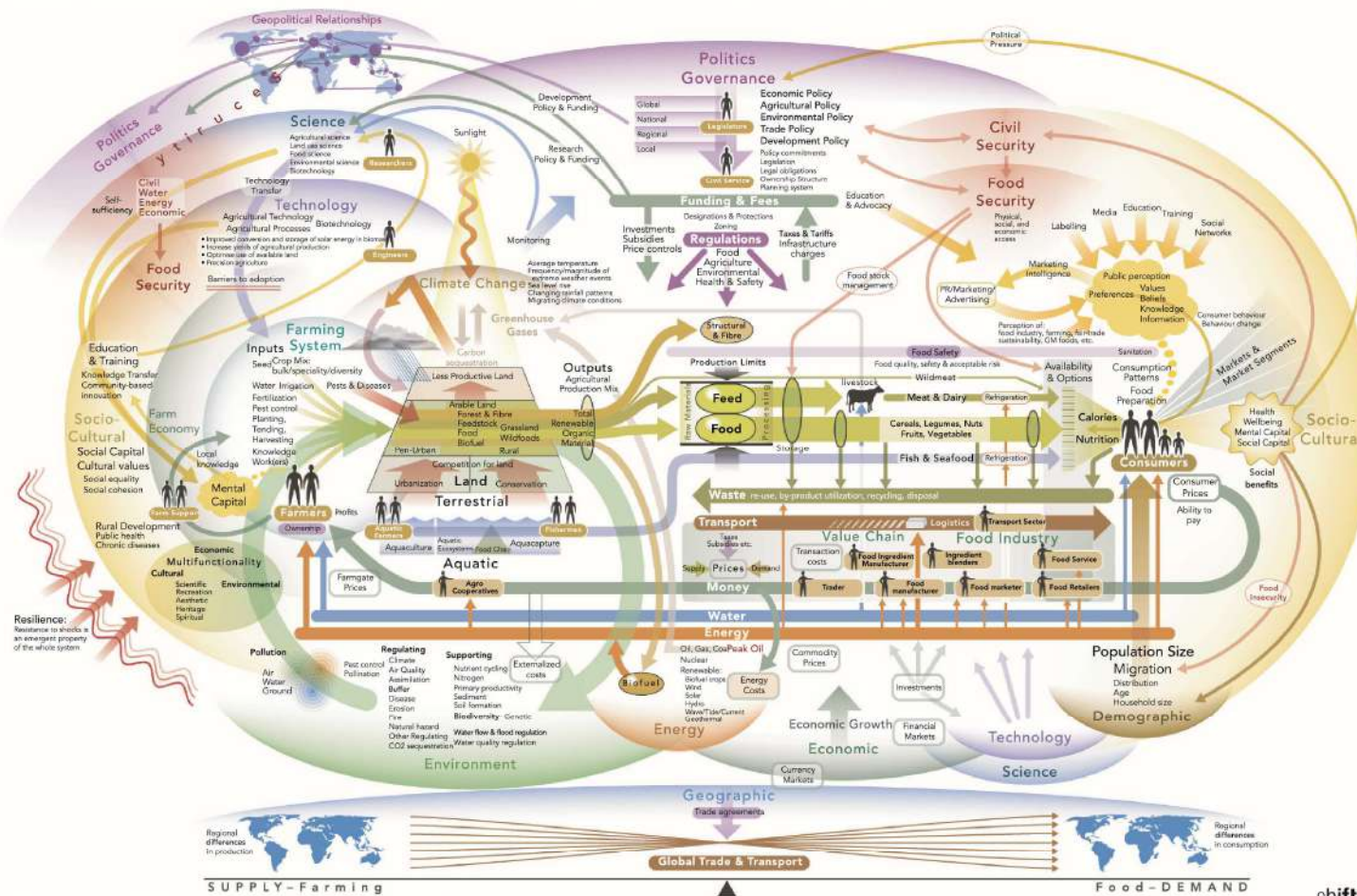
For Sustainable Development



IDF WDS DAEJEON 2018
Dairy for the Next Generation



Global Food System Map Assessing the overall impact of the dairy sector (J. Hill)



Benessere animale e biodiversita'

Applicare le migliori tecniche e pratiche disponibili

Tecnologie high-tech e intelligenti per ottimizzare uso risorse

Riduzione degli sprechi e dei rifiuti



Sostenibilit  socio-economica
oltre che ambientale

Allineare,connettere e
condividere

Ridurre, regolare, rigenerare e
reindirizzare

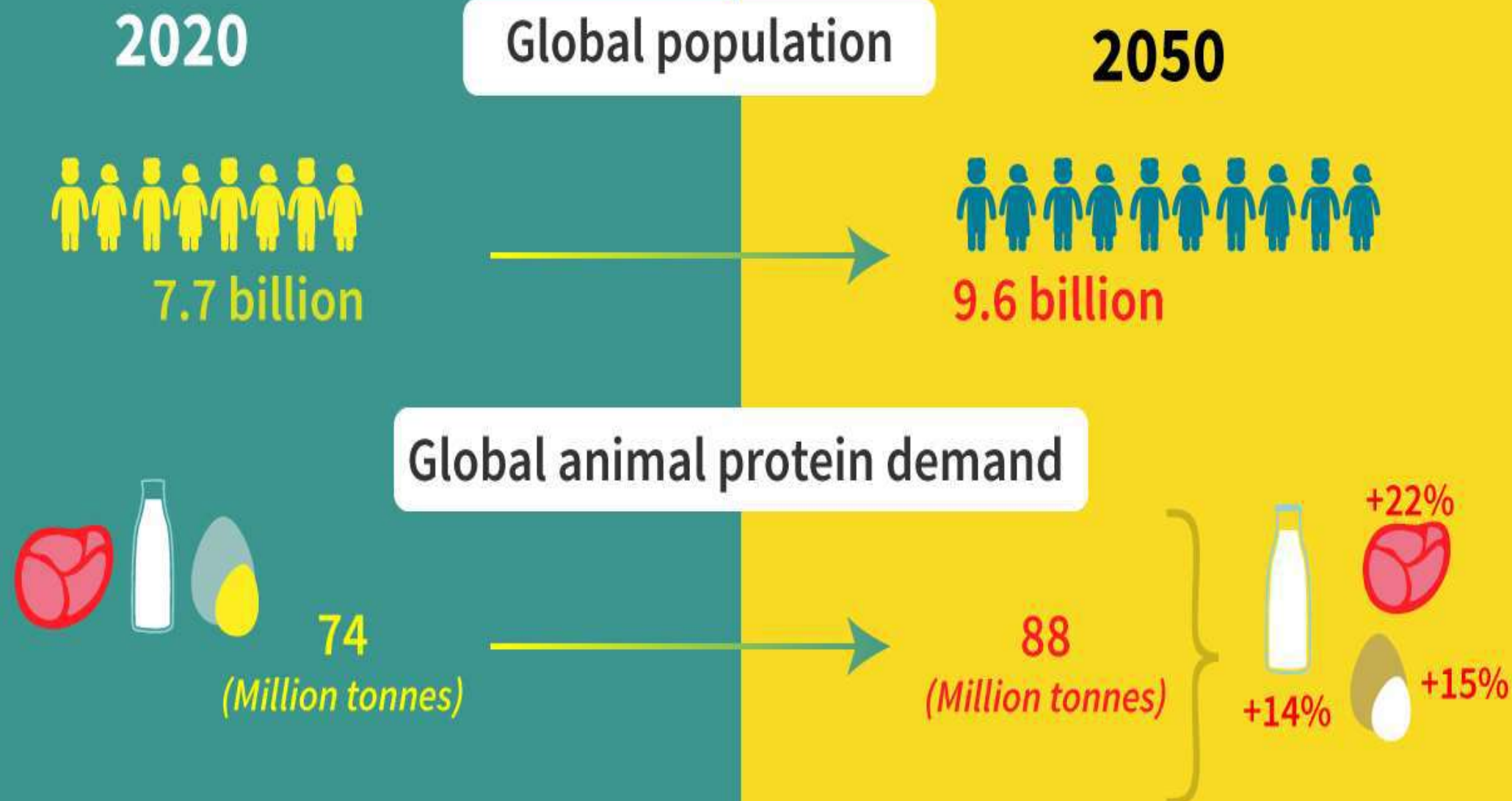
1) Comunicare l'impatto in valore del settore lattiero caseario e dell'agricoltura piu' in generale

- 8,3 billion people on the planet
 - Food insecurity is on the rise
 - Climate change challenges
 - Geopolitical influences
- Nourishes 6 billion people worldwide
- Provides livelihoods for over 1 billion individuals
- 132 million farm households
- 750 million people engaged in milk production



Sources: FAO, IFCN

2) Popolazione mondiale e aumento della domanda della proteina animale



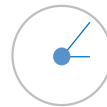
The challenge

We need to produce
More with Less



Today
842 mln people chronically
hungry<-
> 1.4 bln overweight

Every minute 158
More mounths to feed



of which 154 in developing
And emerging economies



2050
More mounths with more money
Living in (mega) cities

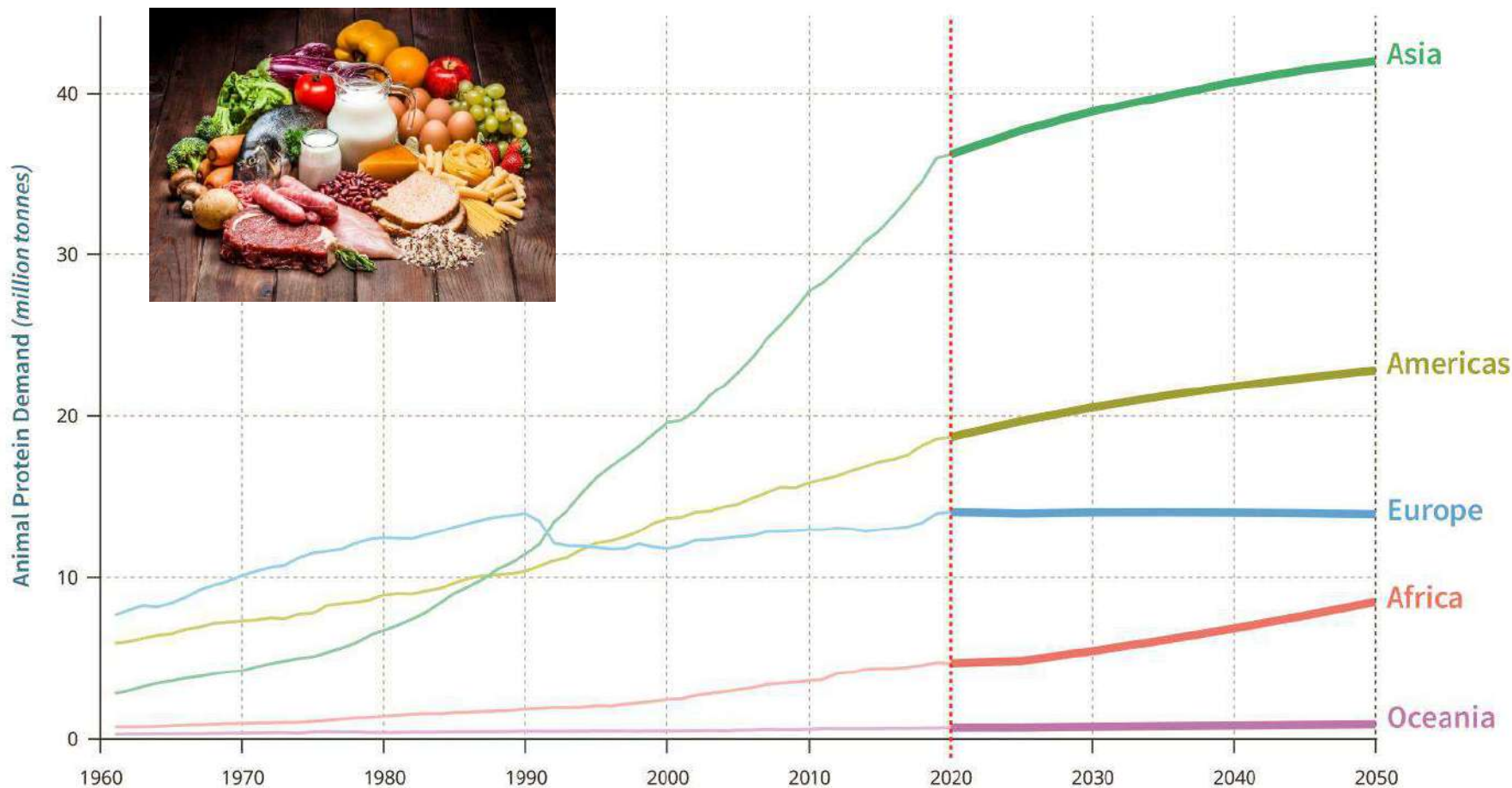
+ 50-70% food by
2050 versus 2020



Food and Agriculture
Organization of the
United Nations



Demands of animal-source foods by Region



Projected
increase in
demand for
animal protein
by 2050:

+ 20%

compared to
2020

INTENSIFICAZIONE SOSTENIBILE

Future State 2030:
The global megatrends shaping governments

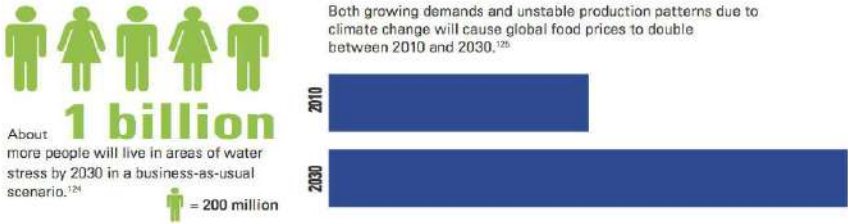
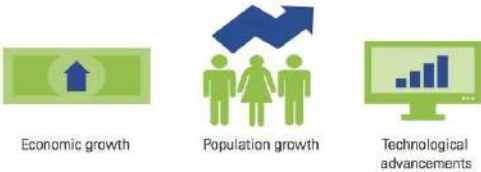
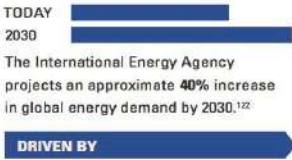
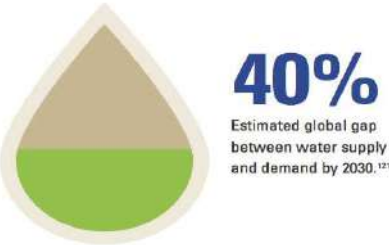
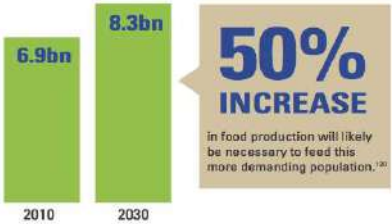
Global megatrend #8 Resource stress

The combined pressures of population growth, economic growth and climate change will place increased stress on essential natural resources including water, food, arable land and energy. These issues will place sustainable resource management at the center of government agendas.

By 2030, significant changes in global production and consumption, along with the cumulative effects of climate change, are expected to create further stress on already limited global resources. Stress on the supply of these resources directly impacts the ability of governments to deliver on their core policy pillars of economic prosperity, security, social cohesion and environmental sustainability.

The evidence of change

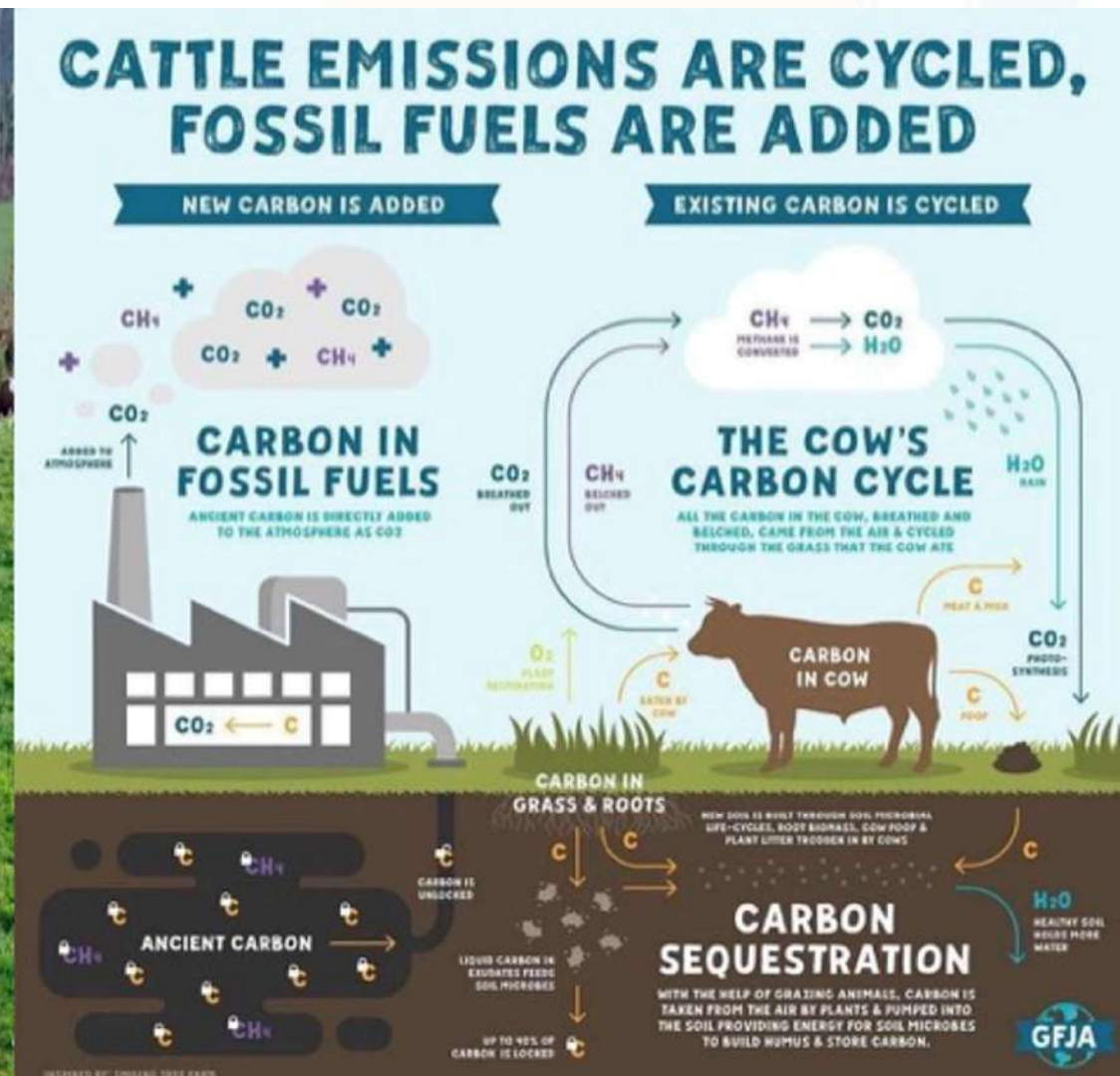
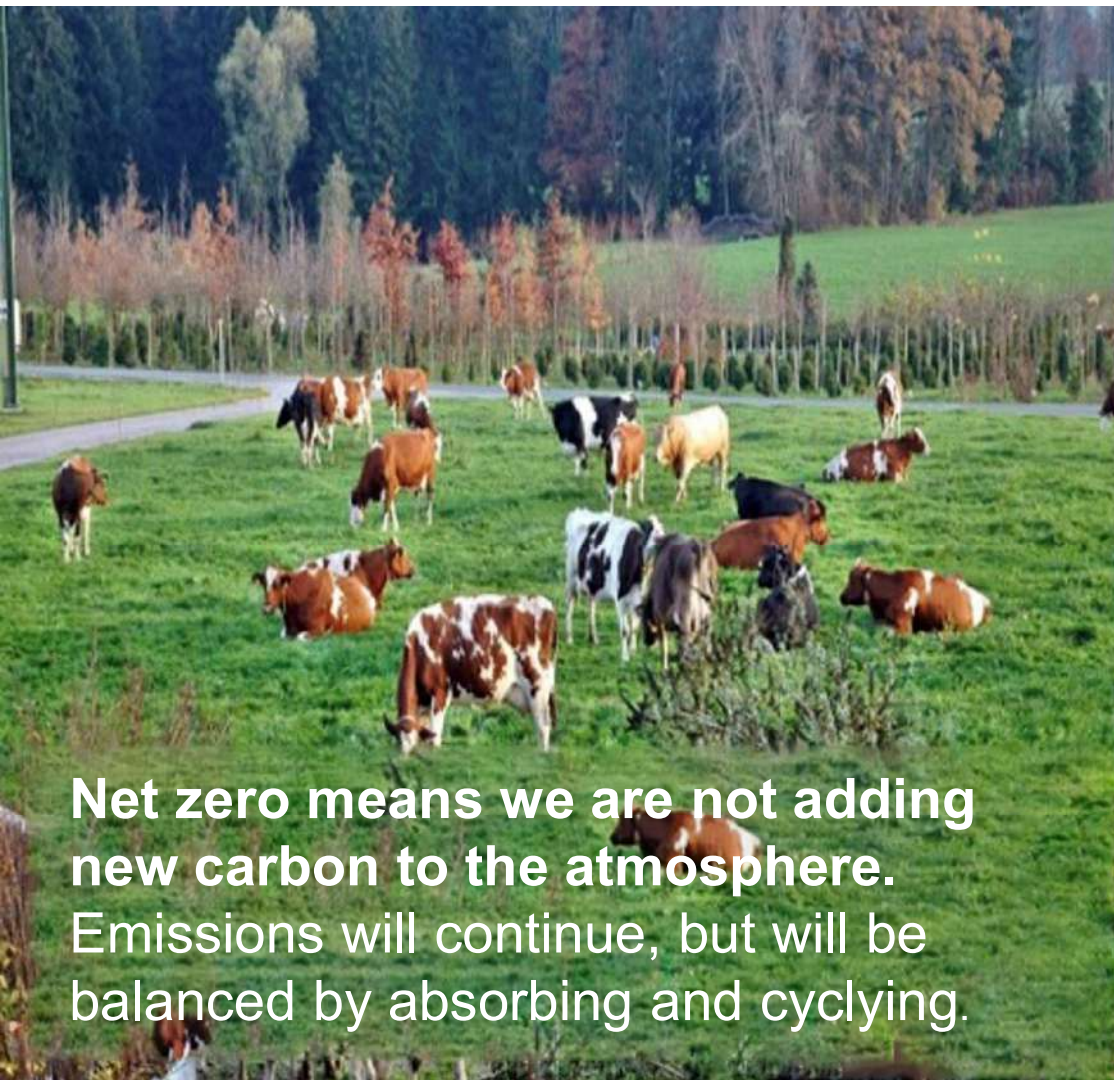
The population is growing and so is the middle class:



The consequences of resource stress



3) Spiegare e far capire il concetto di Circolarità delle emissioni della vacca



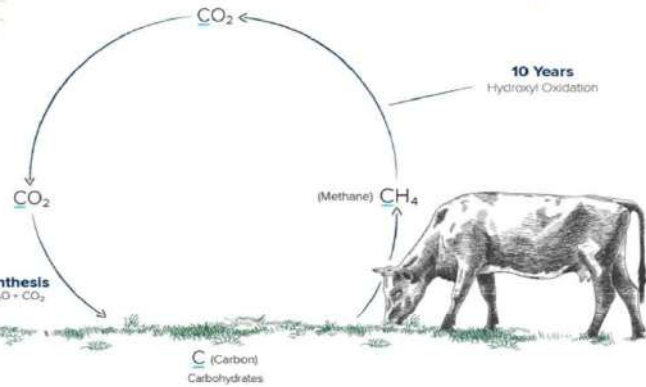
1

SU FOTO NEW CARBON - NO EMISSION (SOLO LA PRIMA)

Sofia Zanetti; 2024-10-03T09:26:01.417



Biogenic Carbon Cycle
Methane - CH_4



UCDAVIS
CLEAR Center



Global Warming Potential (GWP₁₀₀) of Main Greenhouse Gases

Carbon Dioxide (CO_2)	1
Methane (CH_4)	28
Nitrous Oxide (N_2O)	265

UCDAVIS
CLEAR Center

Half-Life of Main Greenhouse Gases in Years

Carbon Dioxide (CO_2)	1,000
Methane (CH_4)	12
Nitrous Oxide (N_2O)	110

UCDAVIS
CLEAR Center



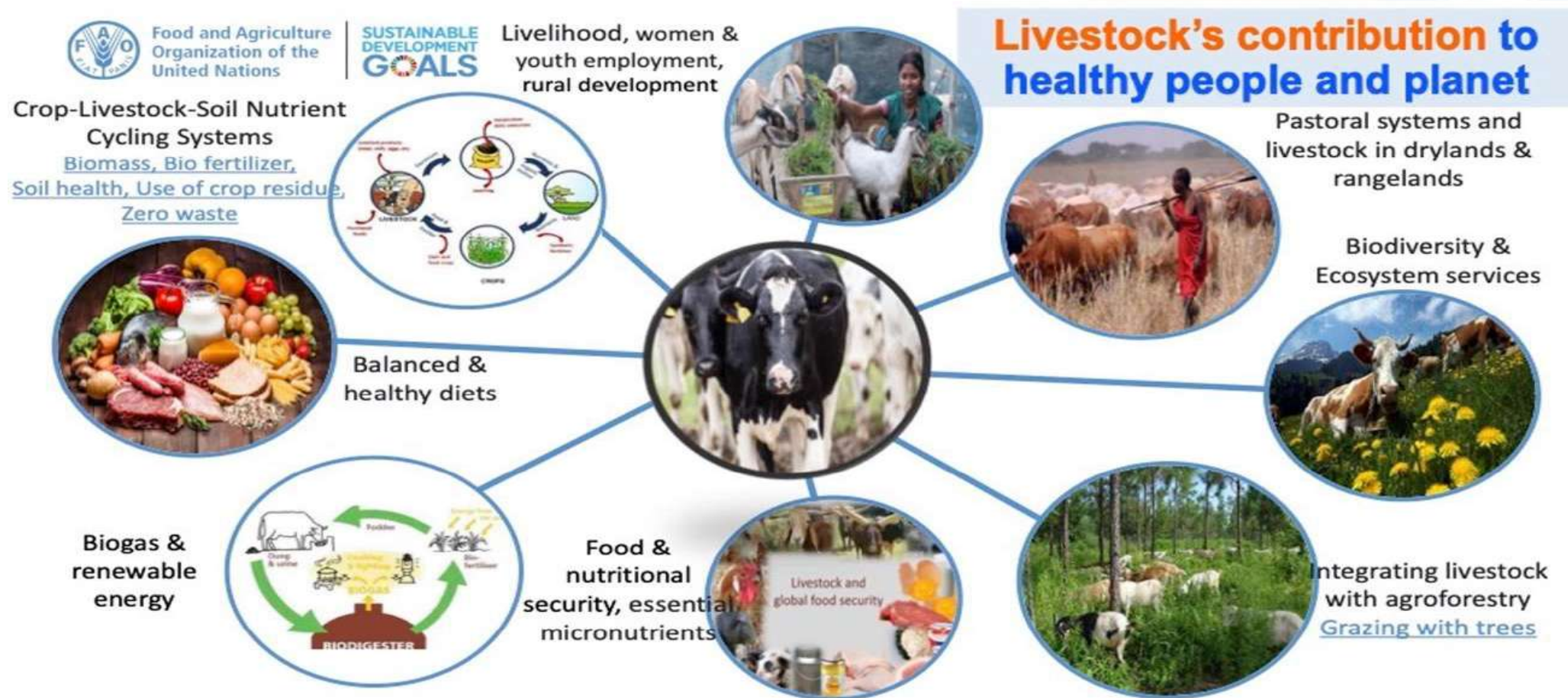
GWP* - A new way to characterize short-lived greenhouse gases

- GWP100 overestimates methane's warming impact of constant herds by a factor of 4, and overlooks its ability to induce cooling when CH_4 emissions are reduced.
- GWP* is a new metric out of the University of Oxford that assesses how an emission of a short-lived greenhouse gas affects temperature.
- GWP* not only accounts for methane's short lifespan, but also its atmospheric removal.

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CLEAR Center

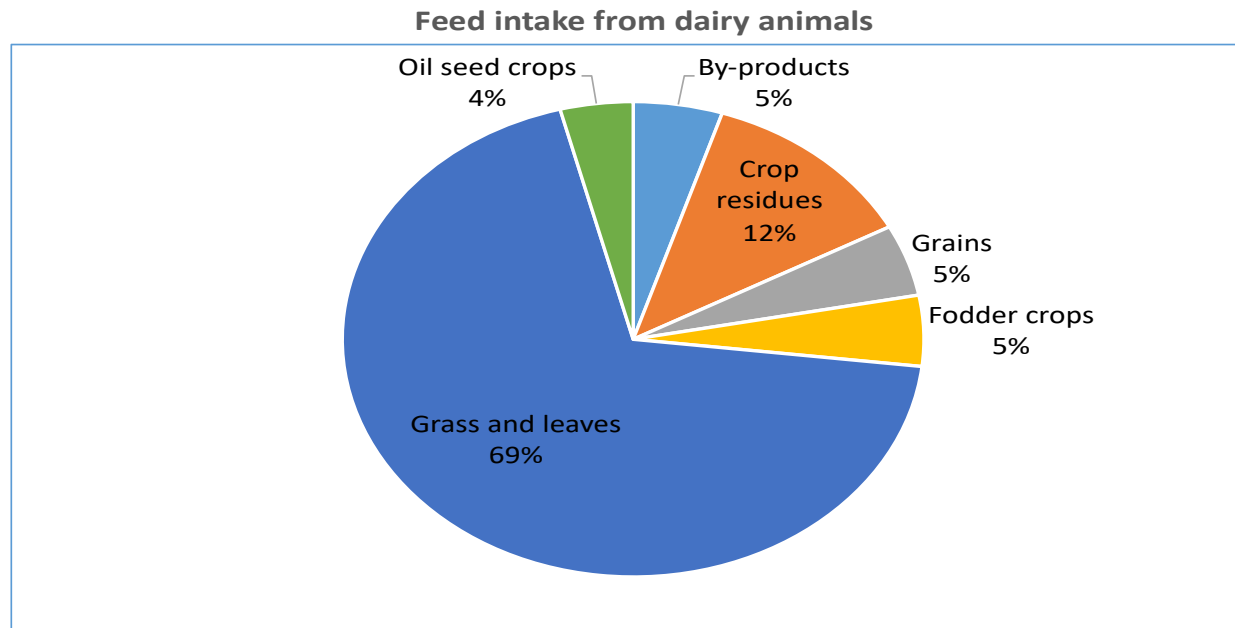


4) Le ricadute socio, economiche, ambientali e nutrizionali del settore lattiero caseario



LATTIERO CASEARIO SISTEMA SOST-EDIBILE

Feed requirements



96% of the global dairy feed intake is made of materials that are currently not eaten by humans

Source: GLEAM 3.0 Dashboard



COME LA FIL-IDF SUPPORTA IL SETTORE LATTIERO CASEARIO

GLOBAL REACH

- Established in 1903
- Members in 40 countries representing 75% of world milk production
- 1,200 experts working in 17 Standing Committees and 5 Task Forces
- Accredited to the FAO, Codex, WOAH, UNEP, UNFCCC, ECOSOC



Diapositiva 23

A1

Waiting for confirmation from AD on correct number of SC and TF's after merging of SC's

Author; 2024-03-28T09:53:37.611

IDF PILLARS OF WORK





IDF WORKING AREAS

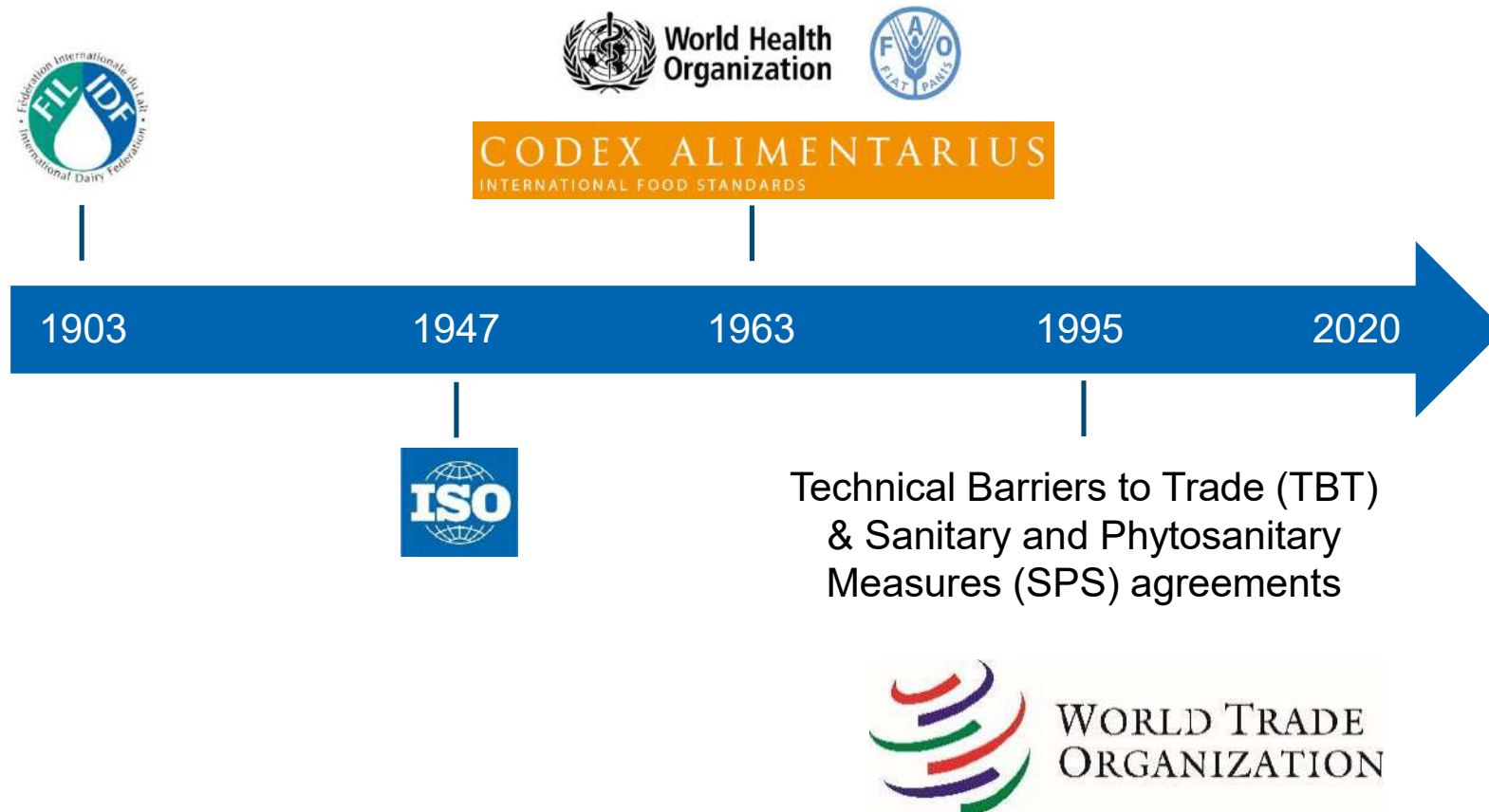
1,200 EXPERTS COVERING
NINE AREAS OF WORK

REPRESENTING THE ENTIRE DAIRY SECTOR



- Milk processors
- National dairy organizations
- Academia/non-profit research institutes
- Farmer co-operatives
- Farmers
- Government (ministry of agriculture)
- Suppliers
- Unions (milk processor employees)

IDF ACHIEVEMENTS ON STANDARDS

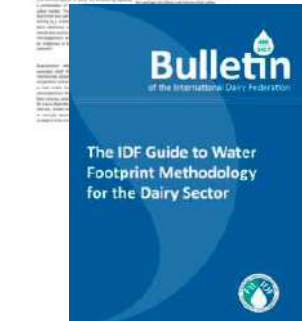
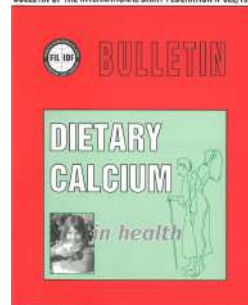
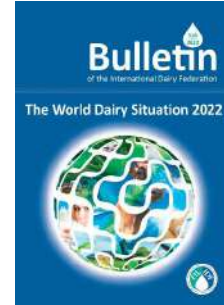
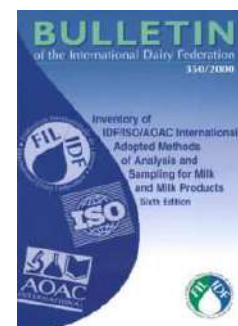
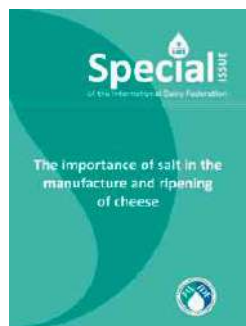
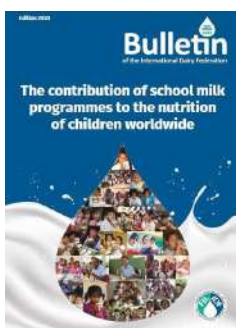
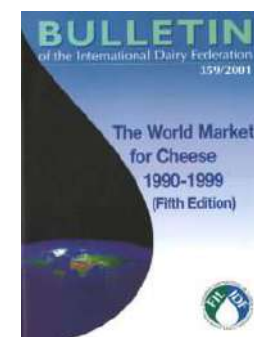
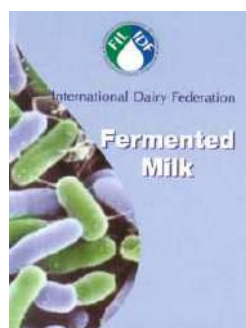
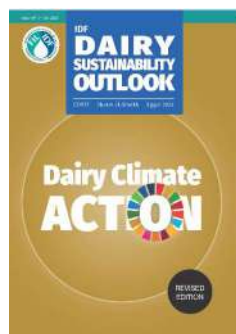


IDF METHODS OF ANALYSIS ARE ACCEPTED BY IGOS

- The methods developed by IDF, jointly with ISO, are standards accepted by all key organizations
- IDF is currently working on +40 standards, including:
 - Determination of alkaline phosphatase activity — Fluorimetric microplate method marker for pasteurisation)
 - Guidelines for the validation of qualitative screening methods for the detection of residues of veterinary drugs in milk and milk products
 - Protein in dairy products
 - Nutrients in Infant Formula, in collaboration with AOAC International
 - Microbiological methods, revision of standard for Enumeration of characteristic microorganisms in yogurt



IDF has been delivering a range of publications since 1903



Diapositiva 29

A1 EE: I personally think this could be presented in a much neater way.

Author; 2024-01-30T09:12:10.391

A1 0 Text also needs to be added to the notes

Author; 2024-01-30T09:13:51.059

A1 1 Let's think of new ways to show this

Author; 2024-01-31T10:49:03.216

IDF AS A PUBLIC SOURCE OF INFORMATION



Case studies



The smarter lunchrooms movement of California
Consuming nutritious food is important at all stages of life, but especially for children and adolescents...

[READ MORE](#)



Addressing childhood malnutrition in Sri Lanka
New school milk program in Sri Lanka also promotes food safety and recycling

[READ MORE](#)



Enhancing child health in Russia through school milk
Promoting milk consumption and improving health in Russia

[READ MORE](#)



GiftMilk, a School Milk Programme in India
GiftMilk school milk program in India providing nutrition support to children, helping eradicate malnutrition...

[READ MORE](#)



Peru's school nutrition program
Preserving culture with innovative product and package design

[READ MORE](#)



Burundi's growing school food program
A new program to improve children's nutrition and school attendance

[READ MORE](#)



School milk helps increase enrolment rates in Kenya
Improving school attendance and nutrition through school milk programs

[READ MORE](#)



Rebate Program, Student Nutrition Ontario, Canada
Providing ongoing funding to ensure all Ontario children have equal opportunity to access milk.

[READ MORE](#)

HOME / DAIRY'S GLOBAL IMPACT / DAIRY SUSTAINABILITY OUTLOOK

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PRINT

The future of dairy sustainability

The latest issue of the report is dedicated to the 5 action tracks of the UN Food Systems Summit and how dairy is helping to deliver on global sustainable development goals.

The UN Food Systems Summit will launch bold new actions to deliver progress on all 17 SDGs, each of which relies to some degree on healthier, more sustainable and equitable food systems. Guided by five Action Tracks, case studies from the dairy community are presented, showcasing how the sector is committed to nourishing the global population with safe and nutritious foods through sustainable production systems.

[LEARN MORE ABOUT DAIRY'S GLOBAL IMPACT](#)



Recent reports/publications

IDF provides a permanent source of authoritative scientific and other information on a whole range of topics relevant to the dairy sector.



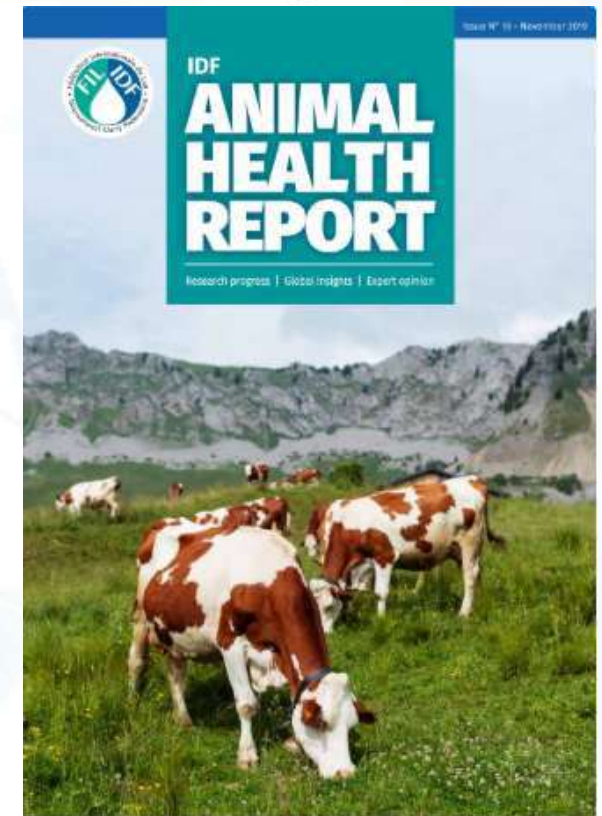
HOME / DAIRY'S GLOBAL IMPACT / SCHOOL MILK KNOWLEDGE HUB

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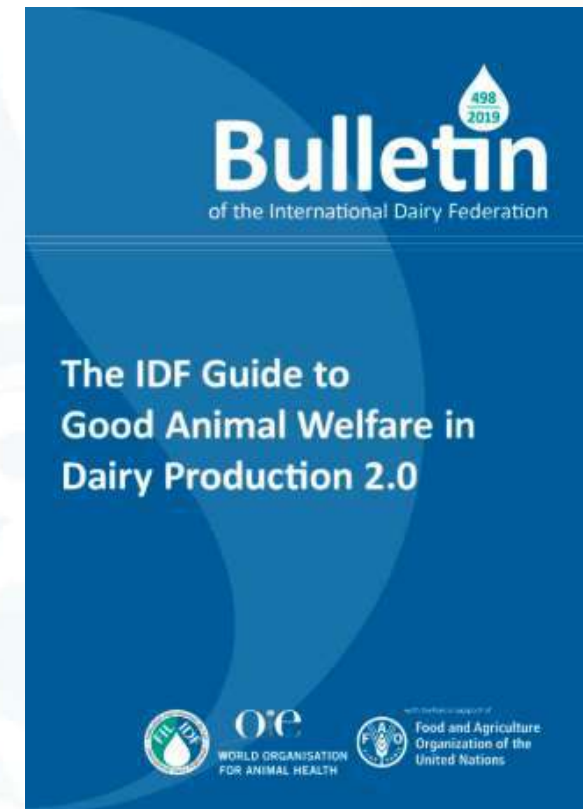
FIL-IDF PROMOTE THE ONE HEALTH STRATEGY

- Guidelines for the prudent use of antimicrobials in the milk production.
- The Animal health report.
- Technical support to guarantee and maintain productive and healthy animals.



IDF GUIDANCE FACILITATES GOOD ANIMAL WELFARE PRACTICES

- IDF Guide to good animal welfare in dairy production 2.0
- Implements the current standards of the OIE and the technical specification of ISO on welfare and provides a practical approach for farmers



DAIRY SAFETY, QUALITY AND STANDARDIZATION

Without food safety, there is no food security. IDF strives to promote science-based and informed approaches to dairy safety and quality.

Our strength lies in building consensus, developing dairy standards grounded in science to enhance trust.



IDF PROTECTS HEALTH THROUGH FOOD SAFETY GUIDANCE

- Food safety concerns both protection from pathogens and from toxic chemicals, and IDF has published on both topics, as well as on best practices.
- Antimicrobial resistance is a topic that has much attention from policy makers and the public.
- In addition to publishing guidance on AMR in the dairy sector, IDF is representing the global dairy sector in the intergovernmental work of Codex Alimentarius on AMR.



3 GOOD HEALTH AND WELL-BEING

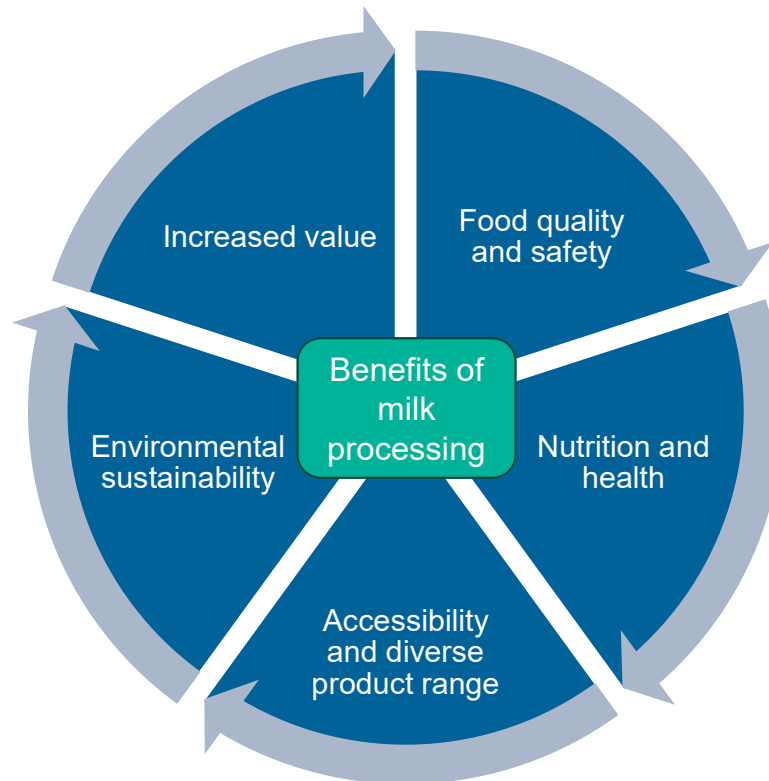


IDF methodologies and sustainable practices



IDF PROMOTES SUSTAINABLE MILK PROCESSING

Processing covers technologies needed to transform, preserve milk and milk products



Dairy processing is pivotal in converting raw milk into a diverse range of high-quality and safe dairy products. This factsheet is intended to provide key information on the broader relevance of what processing milk means, from safety to diversity.

Introduction

Humans have been processing food since prehistoric times. Archaeological evidence suggests that fire has been used to cook food as far back as 780 000 years (Zohar et al., 2022). Processing consists of various processes or technologies that transform agricultural raw materials or ingredients into a new form with improved properties (Dixon & Augustin, 2011). Processing includes traditional methods such as cooking, drying, smoking, fermentation, and modern methods such as pasteurization, ultra-high heat-short-time treatment, filtration or pressure processing. Processing enables the transformation of perishable agricultural raw materials into edible, safe and nutritious food (Pander et al., 2023). Therefore, food processing technology has accelerated transforming our food systems, making food safer, more available and more convenient.

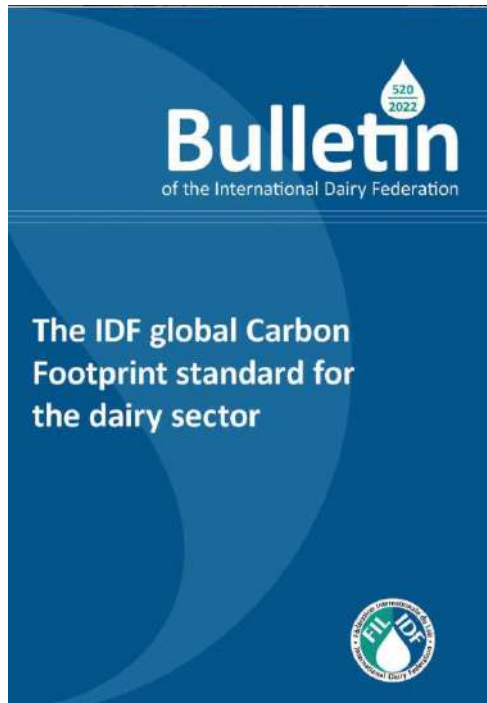
The extent to which products are processed does not determine their role in a healthy and balanced diet. These processes do not cause deleterious changes to the nutritional value of dairy products or ingredients (Albuquerque et al., 2022). In fact, processing contributes to safer and healthier diets and provides other benefits important to sustainable food systems (Rizzo et al., 2022). Despite this, significant concerns regarding processing, particularly the concept of ultra-processed food (UPF), and its impact on consumer health, have surfaced in recent years.

The dairy sector plays an essential role in nourishing the world with global milk production in 2022 forecast at around 930 million tonnes, up by 0.5% from 2021 (Food and Agriculture of the United Nations (FAO), 2023) and estimated to increase to 1 020 million tonnes by 2030 per FAO data (OECD & FAO, 2021). This expanding milk supply contributes to more dairy availability beyond just the region where it is produced. More than 80% of the world's population, or about 6 billion people, regularly consume liquid milk or other dairy products, which would not be possible without processing advances and distribution. The dairy sector is the third largest provider of protein and fat in human diets and an important source of affordable, sustainable and essential nutrients for all (FAO & Global Dairy Platform, 2018).

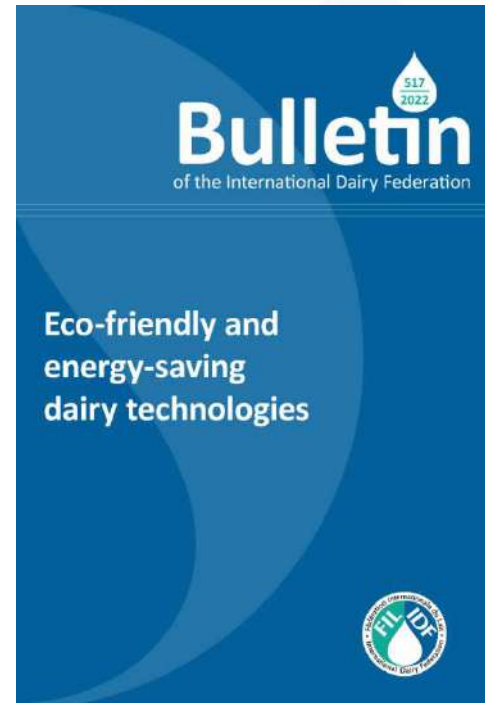
www.idf.org

Factsheet of the IDF N° 37/2024:
Benefits of processing in dairy

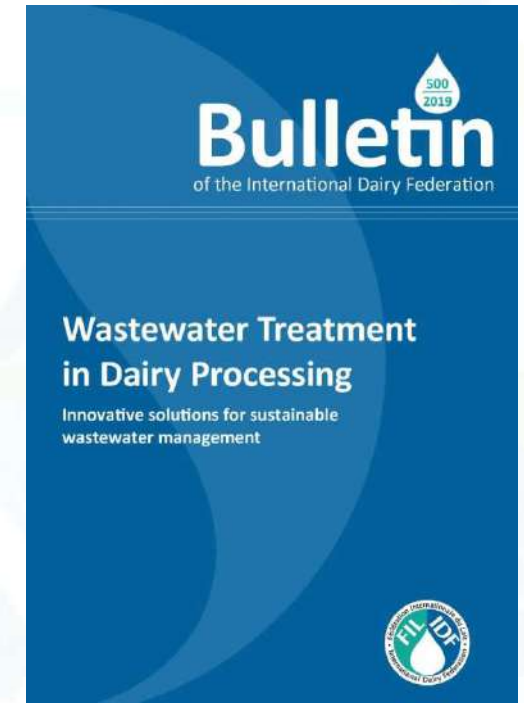
MILK PROCESSING – ENVIRONMENTAL SUSTAINABILITY



Bulletin of the IDF N°520/2022:
The IDF global Carbon Footprint
standard for the dairy sector

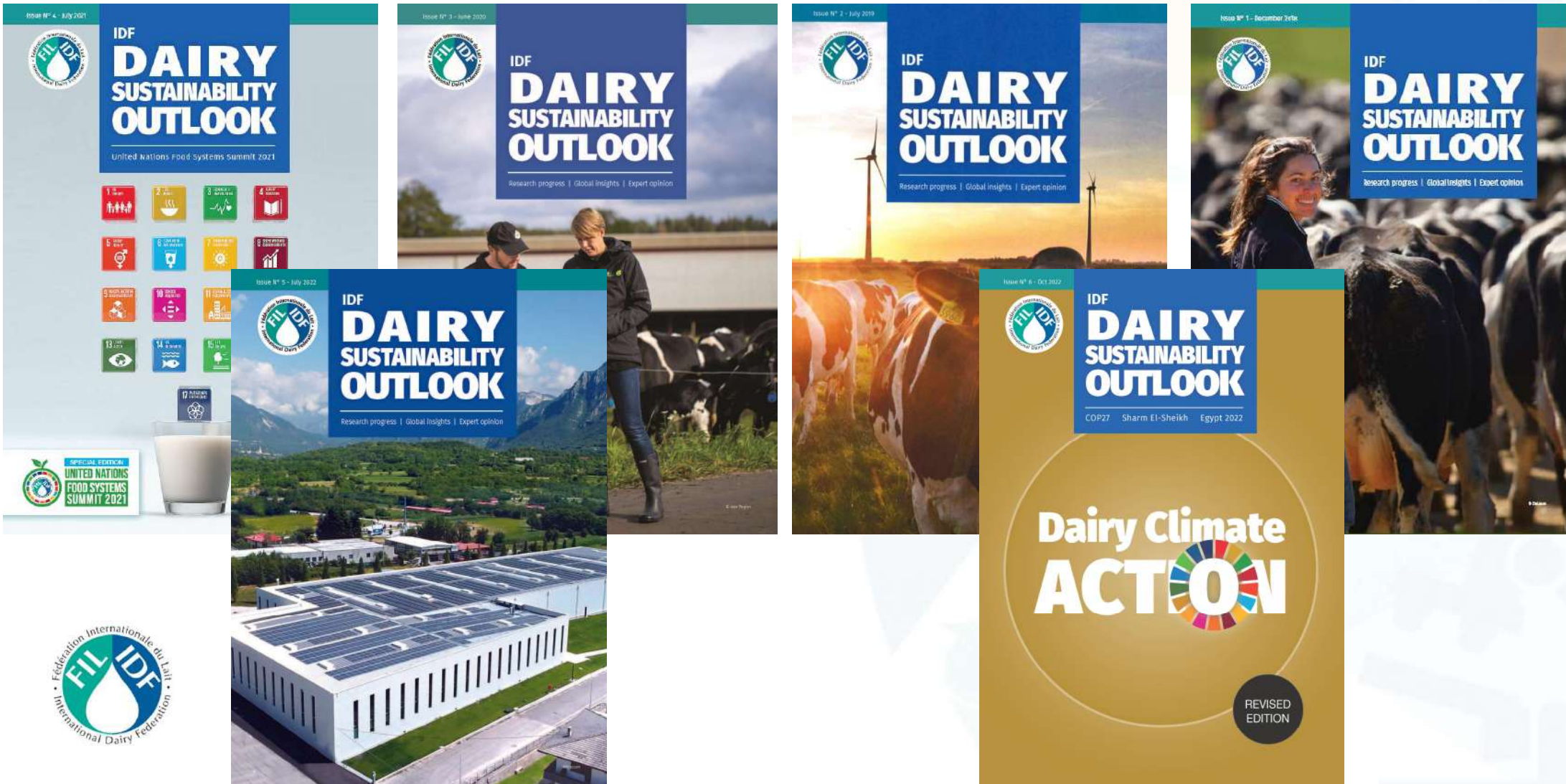


Bulletin of the IDF N°517/2022:
Eco-friendly and energy-saving
dairy technologies



Bulletin of the IDF N° 500/ 2019:
Wastewater Treatment in dairy
Processing

THE SERIES EXPLORES CASE STUDIES OF SUSTAINABLE PRACTICES & INNOVATIONS ACROSS THE DAIRY SECTOR



PROMOTING DAIRY'S VITAL ROLE IN NUTRITION

- IDF is highly engaged in the discussion on how to feed the world with a healthy and sustainable diets.
- Recent work has included a scientific symposium to look at the role of dairy in sustainable diets.
- Promoting science based nutrition within UN institutions



Value of terrestrial animal source food in human health



Food and Agriculture
Organization of the
United Nations

Contribution of terrestrial animal source food to healthy diets for improved nutrition and health outcomes

An evidence and policy overview on the state of knowledge and gaps



Nutrients found
concentrated and
bioavailable in
terrestrial animal
source food play
important roles in
human health



MACRONUTRIENTS

High-quality proteins

- Increase muscle mass
- Prevent loss of muscle mass

Long-fatty acids and ratios of essential fatty acids

- Cognition
- Neurodevelopment
- Anti-inflammatory processes



MICRONUTRIENTS

Zinc

- Vital functions in growth, development and immunity

Vitamin B12

- Neurodevelopment
- Cell formation

Choline

- Growth
- Brain function
- Gene interactions

Calcium

- Bone health

Iron

- Prevents iron deficiency anaemia

Selenium

- Anti-inflammatory
- Genome-level processes

IDF - la serie delle schede informative (factsheets)



La serie (2023) di factsheets di IDF è composta da 4 schede: generale, latte, yogurt, formaggio.

Factsheet of the IDF N° 27/2023: Dairy matrix: Understanding its impact on the health effects of dairy foods



Factsheet of the IDF N° 33/2023: Dairy matrix: The case of milk



Factsheet of the IDF N° 34/2023: Dairy Matrix: The case of cheese



Factsheet of the IDF N° 35/2023: Dairy matrix: The case of yoghurt



Le schede riportano la sintesi delle più recenti evidenze scientifiche sulla matrice lattiero-casearia.

Concetto fondamentale: ogni categoria e, all'interno di questa, **ogni tipo di alimento è una matrice diversa** che si traduce in effetto matrice distinto

Dairy matrix e gli effetti sulla salute: i concetti chiave



Riconoscere l'effetto matrice significa riconoscere che:

1. **l'effetto di un componente** di un alimento dipende dalla combinazione con gli altri componenti contenuti in quel particolare alimento e dalla struttura risultante.
2. **le persone assumono** i nutrienti come parte di un alimento e consumano il cibo come parte di un pasto.
3. **la matrice alimentare influenza** direttamente il processo di digestione e assorbimento dei componenti alimentari nel tratto gastrointestinale, influenzando gli effetti nutrizionali e sulla salute complessivi degli alimenti



Dairy matrix evidenze molto solide:

Associazione neutra o benefica tra il consumo di latte e la salute cardiometabolica.

Diminuzione del rischio di cancro del colon-retto

Riduzione del rischio di diabete di tipo 2, indipendentemente dal contenuto di grassi.

Facilitazione dell'assorbimento dei nutrienti

Nonostante il suo contenuto di grassi saturi e sodio, il formaggio ha inaspettatamente mostrato effetti da neutri a benefici sulla salute cardiometabolica

Nonostante il suo contenuto di sodio il formaggio NON è stato associato ad effetti sulla pressione sanguigna.

Il formaggio è l'esempio più eclatante dell'effetto matrice: i componenti interagiscono modellando la struttura del formaggio, influenzati da fattori come il processo di produzione la maturazione



Dalla mission di IDF...

- ❑ diffondere le recenti evidenze scientifiche, quali l'effetto matrice
- ❑ fare corretta informazione
- ❑ affermare il ruolo del latte ed i suoi derivati in una dieta salutare e sostenibile, *science based!*

Da Mozaffarian D.

Identifying nutritional priorities for global health: time for a more PURE focus on protective foods, Eur Heart J. 2023 Jul 21;44(28):2580-2582.



Dariush Mozaffarian is a cardiologist, public health scientist, and Director of the Food is Medicine Institute at Tufts University

“È tempo che le Linee Guida nutrizionali nazionali, l'innovazione nell'industria, le politiche dei governi, l'etichettatura e le normative e gli interventi sanitari relativi all'alimentazione siano basati sulla scienza. Milioni di vite dipendono da questo”

Vegan diet 'cannot easily provide some vital nutrients,' major report warns

The findings come after the UN's Food and Agriculture Organisation examined more than 500 scientific papers on animal foods

<https://www.telegraph.co.uk/news/2023/05/02/vegan-diet-nutrients-major-un-report/>

2 May 2023



The Telegraph

telegraph.co.uk

Vegan diet 'cannot easily provide some vital nutrients,' major report ...
The findings come after the UN's Food and Agriculture Organisation examined more than 500 scientific papers on animal foods

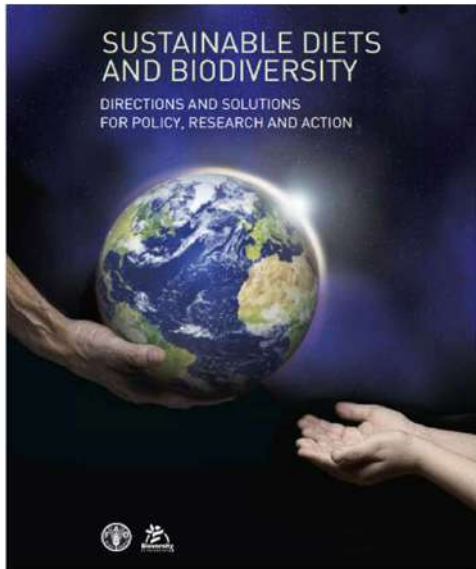
Good news does not come often — and for decades the livestock sector has carried criticism. Today, we have the chance to rewrite the story: livestock as a force for food security, nutrition, climate solutions, and sustainable future.

Eggs, milk and meat offer vital nutrients that cannot be easily obtained through a vegan diet, a major [United Nations](#) report has warned.

Warning to vegans: Diet of meat, eggs and milk is healthier than plant-based foods, major review finds

- The study was carried out by the UN's Food and Agriculture Organization
- It looked at 500 papers to analyse the benefits and risks of animal source foods

Dieta sostenibile: il passaggio chiave della FAO



da una
dieta sostenibile
ad una
**dieta salutare
e sostenibile**



FAO, 2010:

DEFINITION OF SUSTAINABLE DIETS

Sustainable Diets are those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources.
Burlingame B., Dernini S., FAO 2010

FAO – WHO, 2019

AIMS OF SUSTAINABLE **HEALTHY** DIETS

Sustainable Healthy Diets are dietary patterns that promote all dimensions of individuals' health and wellbeing; have low environmental pressure and impact; are accessible, affordable, safe and equitable; and are culturally acceptable. The aims of Sustainable Healthy Diets are to achieve optimal growth and development of all individuals and support functioning and physical, mental, and social wellbeing at all life stages for present and future generations;
FAO and WHO. 2019. Sustainable healthy diets – Guiding principles. Rome.

FAO e WHO hanno introdotto il «concetto di salutare»

Dieta salutare e sostenibile

significa considerare nello stesso quadro



1. **NUTRIZIONE** (nutrizionalmente adeguata)

2. **AMBIENTE** (con il minor impatto ambientale possibile)

3. **ECONOMIA** (economicamente accessibile e sostenibile)

4. **CULTURA** (culturalmente accettabile, nel rispetto delle abitudini e delle tradizioni delle diverse popolazioni)

Figure 1. The 4 principal dimensions of sustainable diets



Peters S., Voeding Magazine 2 - 2019

EQUILIBRIO TRA NUTRIZIONE E AMBIENTE

**Integration of environment
and nutrition in life cycle
assessment of food items:
opportunities and challenges**



McLaren, S. et al, 2021, FAO, Rome

FAO e Nutritional
LCA (nLCA)



FAO (2021):

integrare nutrizione e ambiente
nella valutazione della sostenibilità degli alimenti.

Gli studi sul life ciclo di vita di un alimento (life cycle assessment), noti come LCA, dovrebbero diventare nutritional LCA (nLCA)

“This report defines a nutritional LCA (nLCA) study as an LCA study where the provision of nutrient(s) is considered as either the main function or one of the main functions of a food item.”

“nLCA studies should be undertaken by multidisciplinary teams involving nutritional and health scientists as well as environmental scientists”.



Food and Agriculture
Organization of the
United Nations



Metrics Matter



CO₂eq emissions per 100 GRAM



Milk



Soy
drink



Nutrient Density Index



CO₂eq emissions per Nutrient Density value



Source: Rabobank

Source: Smedman et al, 2010



A NEW CHALLENGE THE PARIS DAIRY DECLARATION

- ✓ The dairy sector has shown strong commitment to sustainability
 - Global Dairy Agenda for Action (2009)
 - Dairy Sustainability Framework (2013)
 - Dairy Declaration of Rotterdam (2016)
 - Pathways to Dairy Net Zero (2021)
 - Global Methane Pledge (2022)
- ✓ The **Paris Dairy Declaration on Sustainability**, signed by IDF and FAO in October 2024, solidifies a global commitment to sustainable dairy development with **public, quantified, and time-tabled objectives**.
- ✓ IDF **calls on** all members, leaders, and stakeholders to **endorse the Paris Dairy Declaration on Sustainability** and commit to achieving its sustainability goals.



COMMITMENTS' STOCKTAKING ON SUSTAINABILITY



Dairy quantified
and timetabled commitments
on sustainability
over the coming years

29th April 2025

HOW ARE CLASSIFIED THE COMMITMENTS ?

4 main chapters

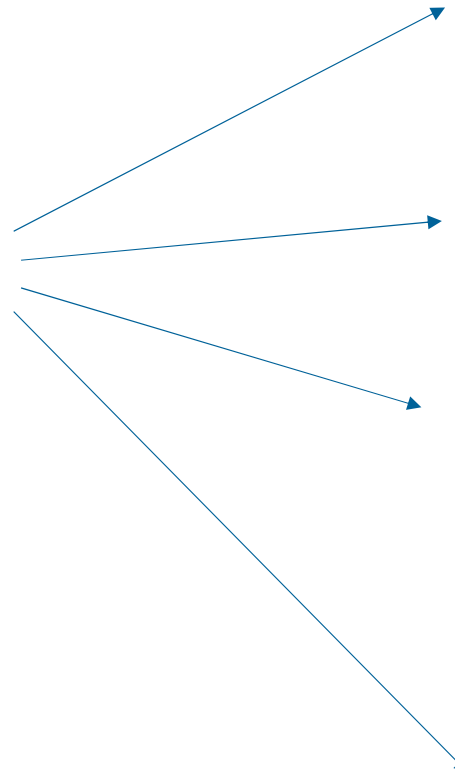


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Organisations and companies analysed

A2	New Zealand Quantified and timetabled commitments identified on A2 Milk website and a2 Milk Company net zero roadmap 2024
Agropur	Canada Quantified and timetabled commitments identified in Agropur 2021 ESG report and Agropur ESG report 2023
Almarai	Saudi Arabia Quantified and timetabled commitments identified in Almarai sustainability report 2024
Andechser Natur	Germany Commitment for GHG emissions in SBTi target dashboard
Andros	France Commitment for GHG emissions in SBTi target dashboard
Arla Foods	Denmark Quantified and timetabled commitments identified in Arla Foods annual report 2023 and Arla Foods annual report 2024
Aurora Organic Dairy	United States Quantified and timetabled commitments identified in Aurora Organic Dairy sustainability report 2022
Ausnutria	China Quantified and timetabled commitments identified in Ausnutria sustainability report 2023
Australian Dairy Sustainability Framework	Australia Quantified and timetabled commitments identified in Australian Dairy Sustainability Framework Report 2021 and Australian Dairy Sustainability Framework Report 2023
A Ware	Netherlands Quantified and timetabled commitments identified in Royal A Ware website – Pijler productie proces (NL) , A Ware sustainability report 2023 (report downloading not allowed) and A Ware annual report 2024
A.J. & R.G. Barber	United Kingdom Commitment for GHG emissions in SBTi target dashboard
Bauer	Germany Quantified and timetabled commitments identified in Bauer website - sustainability
Bayerische Milchindustrie	Germany Commitment for GHG emissions in SBTi target dashboard
Bechtel Naturkäseseiwerk	Germany Commitment for GHG emissions in SBTi target dashboard
Bega Cheese	Australia Quantified and timetabled commitments identified in Bega Cheese 2022 sustainability report , Bega Cheese 2023 sustainability report and Bega sustainability report 2024

WHAT KIND OF COMMITMENTS DOES THE ANNEX CONTAIN?

On sustainability

Over the coming years

Quantified

Timetabled

In an open access document

Water consumption, saving,
recycling and monitoring

aligned with SDG



Almarai	Saudi Arabia
Commitment	To increase water efficiency across our manufacturing, sales, distribution and logistics divisions by 15% by 2025 against a 2018 intensity baseline
Reference document	Almarai Sustainability Report 2022 (p 19)



Dairy quantified and timetabled commitments on sustainability over the coming years

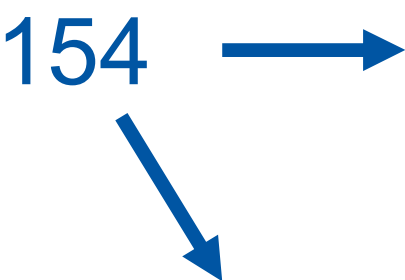
August 30, 2025

1,000 commitments made by **155** dairy organisations and companies from **41** countries



TO DATE, 154 DAIRY OPERATORS WHO HAVE MADE QUANTIFIED AND TIME-BOUND SUSTAINABILITY COMMITMENTS OVER THE COMING YEARS HAVE BEEN IDENTIFIED

154

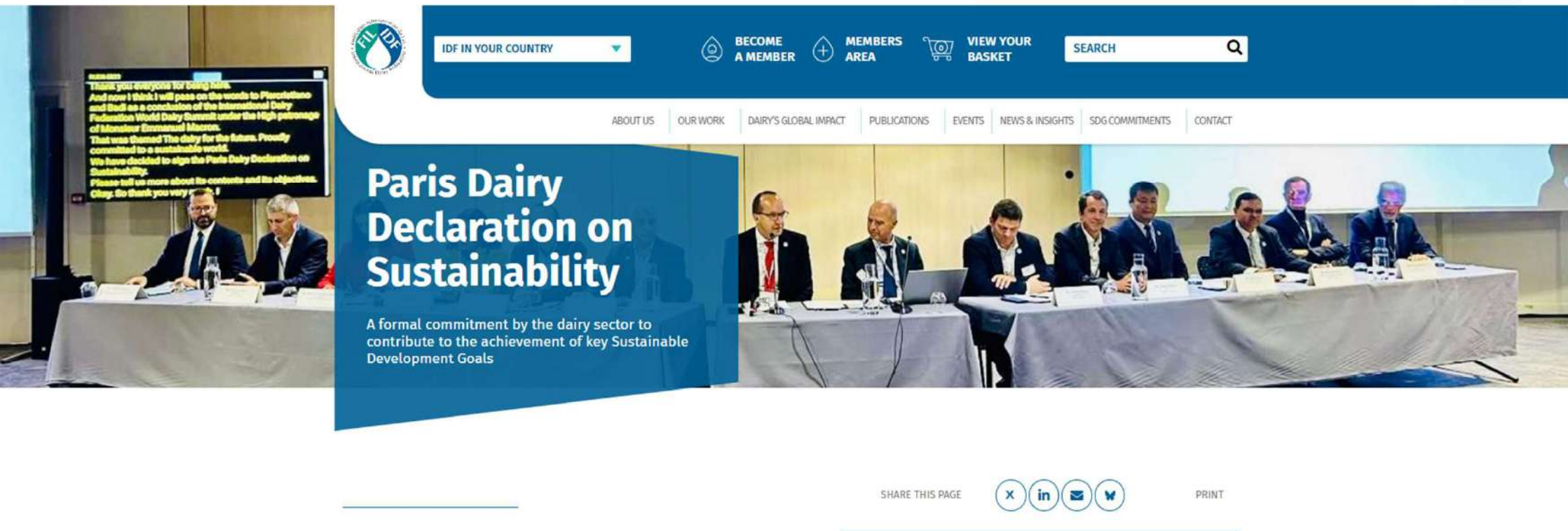


144 companies collecting and/or processing milk (cooperatives or private)

10 collective organizations (interbranch organizations, farmers' or processors' federations, etc.)

- 3 Africa
- 30 America
- 22 Asia
- 90 Europe
- 9 Oceania

4. PDDS WEBPAGE

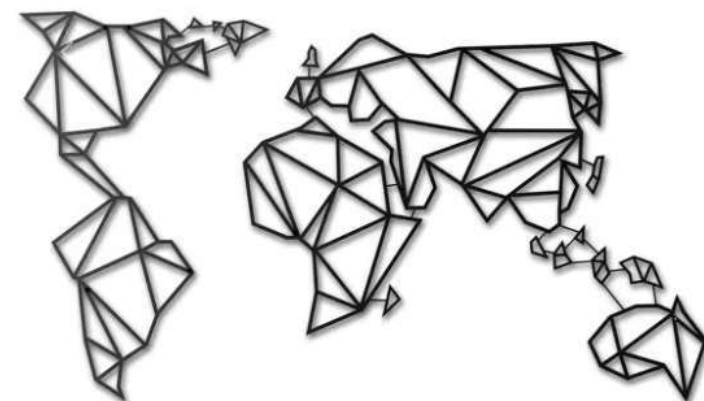
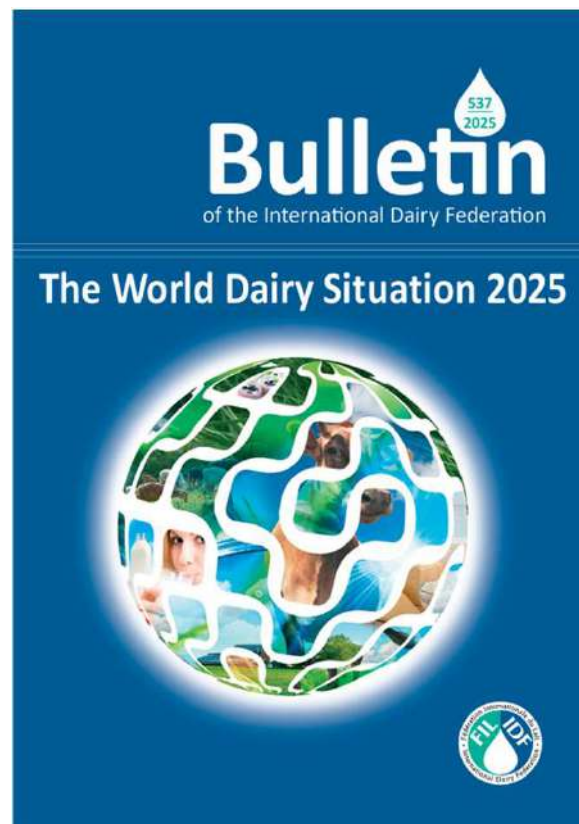


<https://fil-idf.org/dairys-global-impact/paris-dairy-declaration/> -

IDF DAIRY INNOVATION AWARDS BUILT-IN SUSTAINABILITY AND UN-SDGS

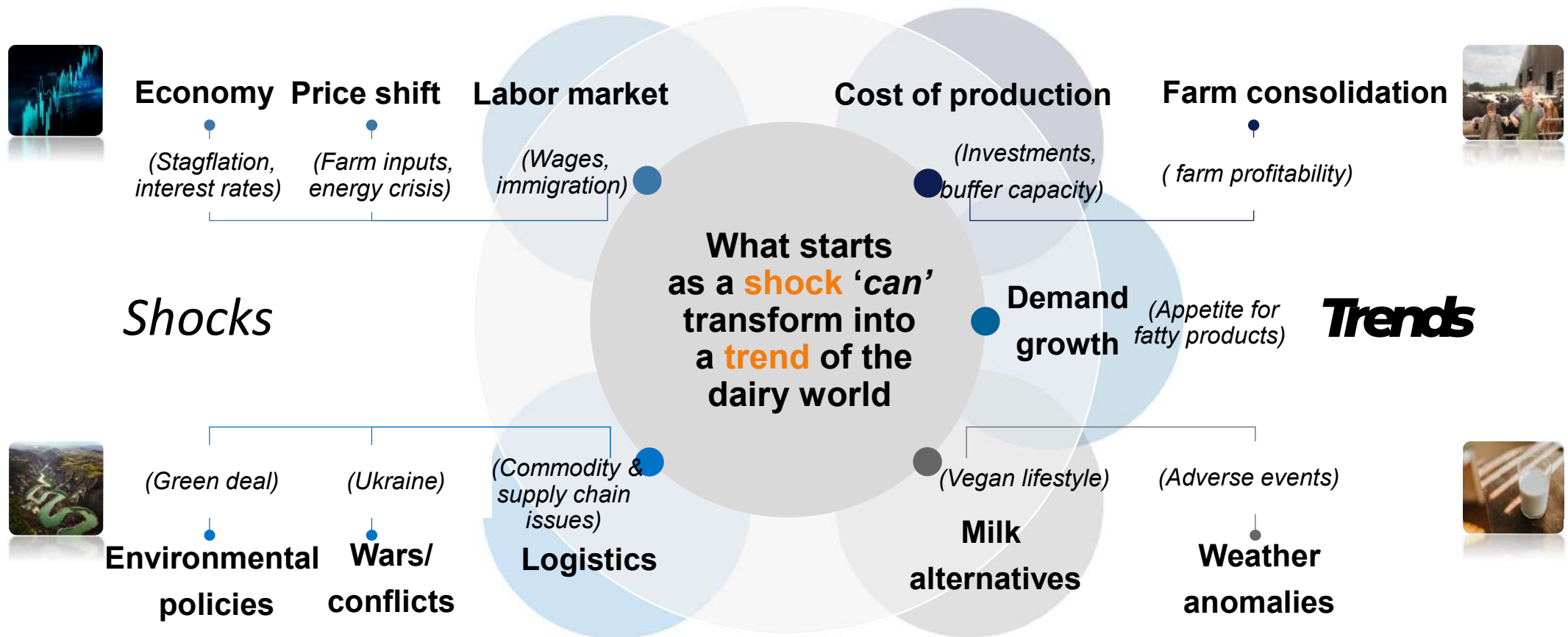


The World Dairy Situation Report



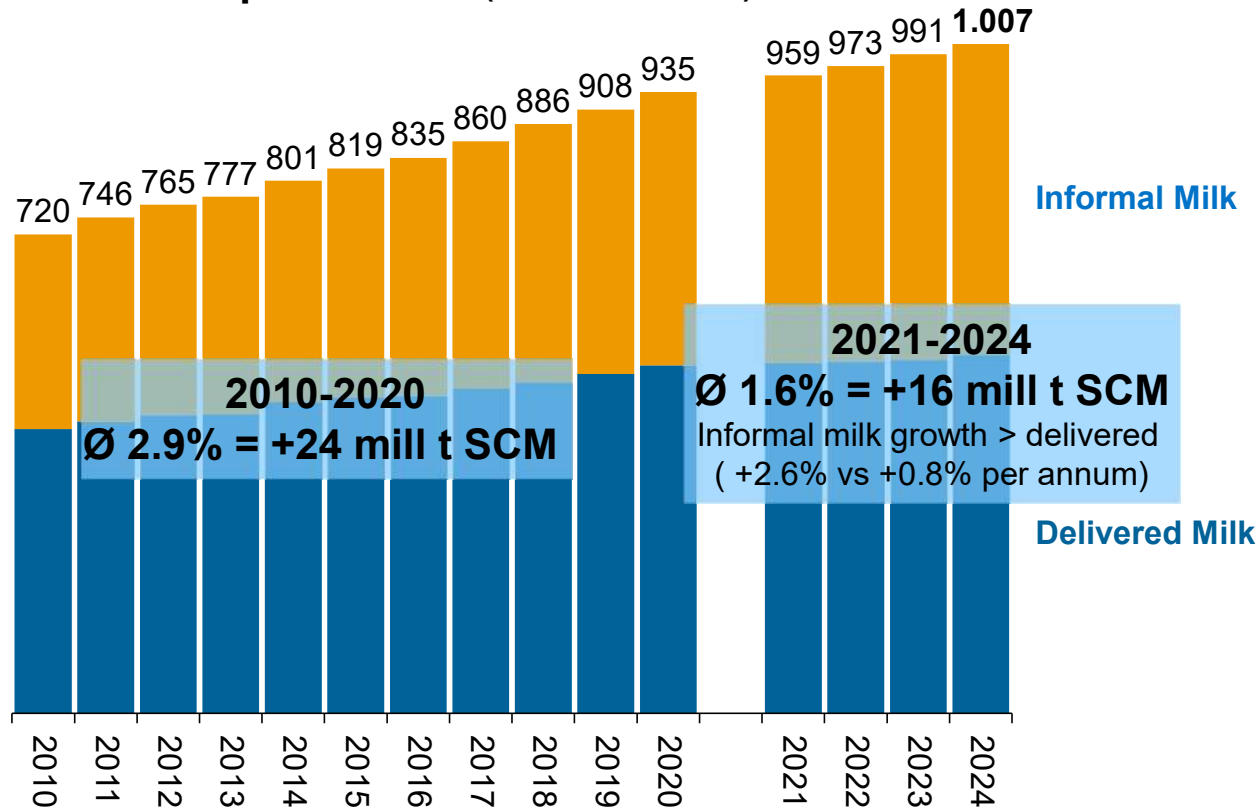
49 countries featured
More in database

Forces reshaping the global dairy



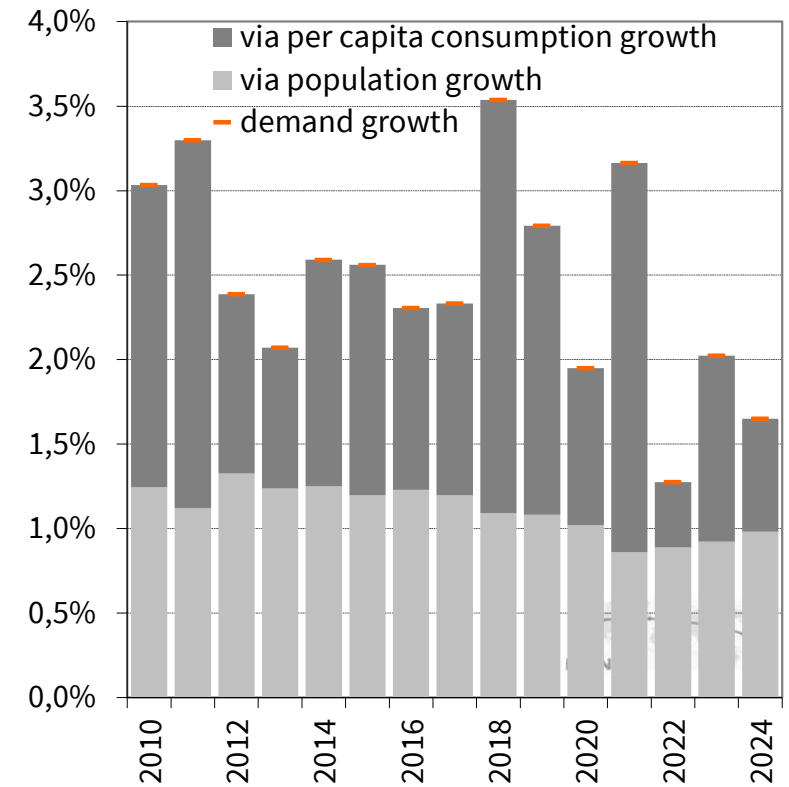
Global milk supply growth is slowing

World milk production (million-ton SCM)



SCM = Solid Corrected Milk with 4.4% fat & 3.3% protein

Milk demand development (annual % change)



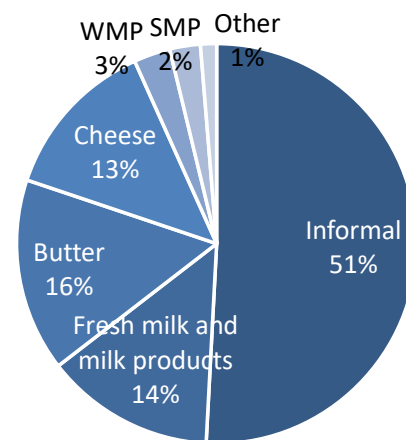
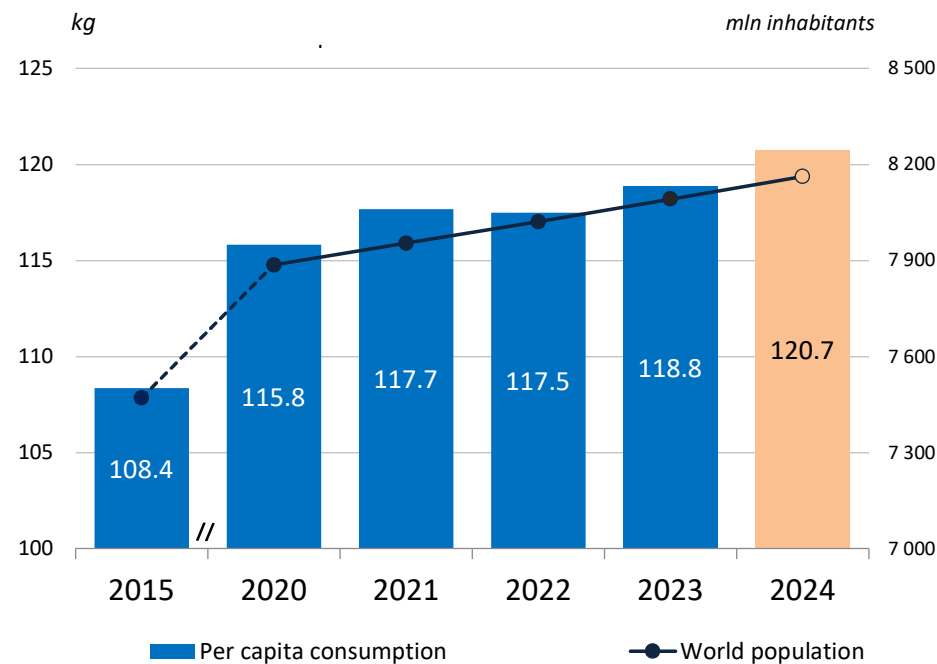
Global dairy supply and demand outlook

Updated 2023

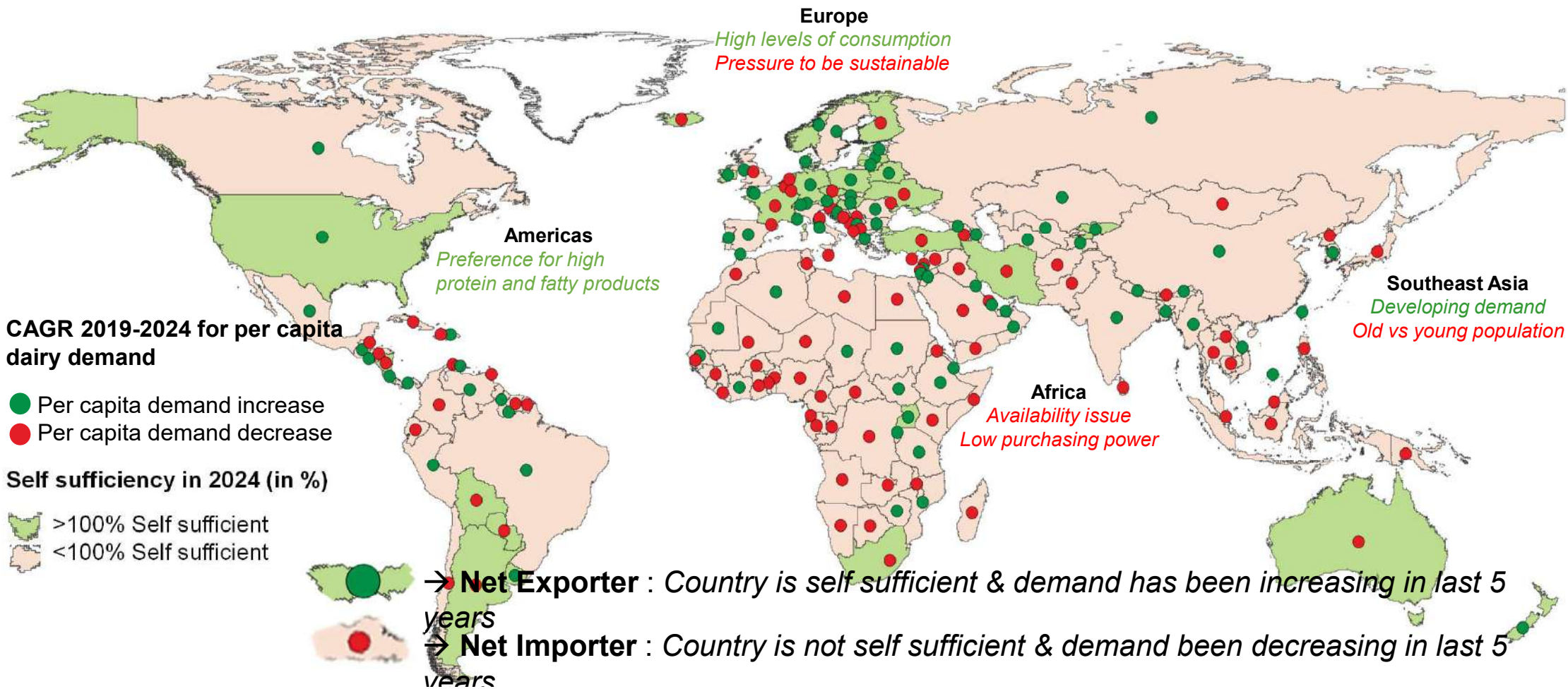


Source: Rabobank, 2023

Per capita consumption and population

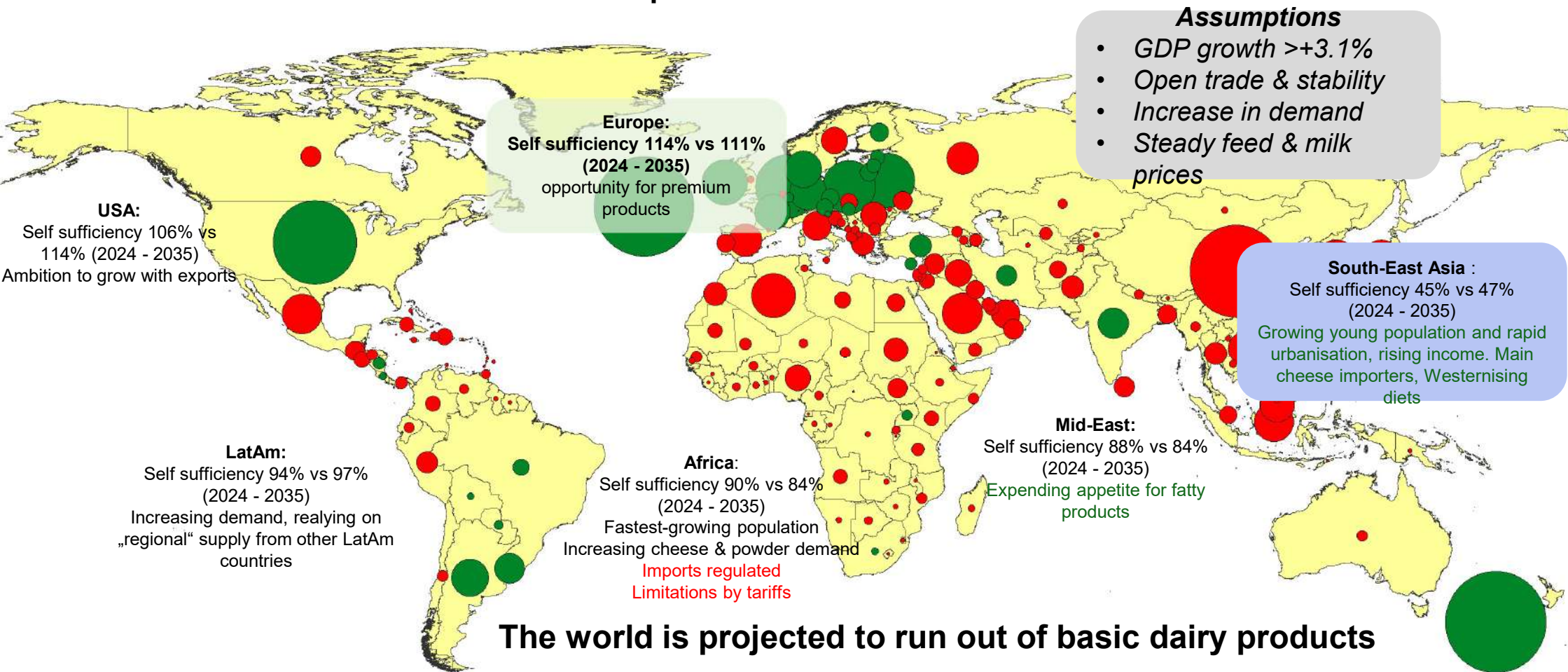


Who can supply? Who must import?



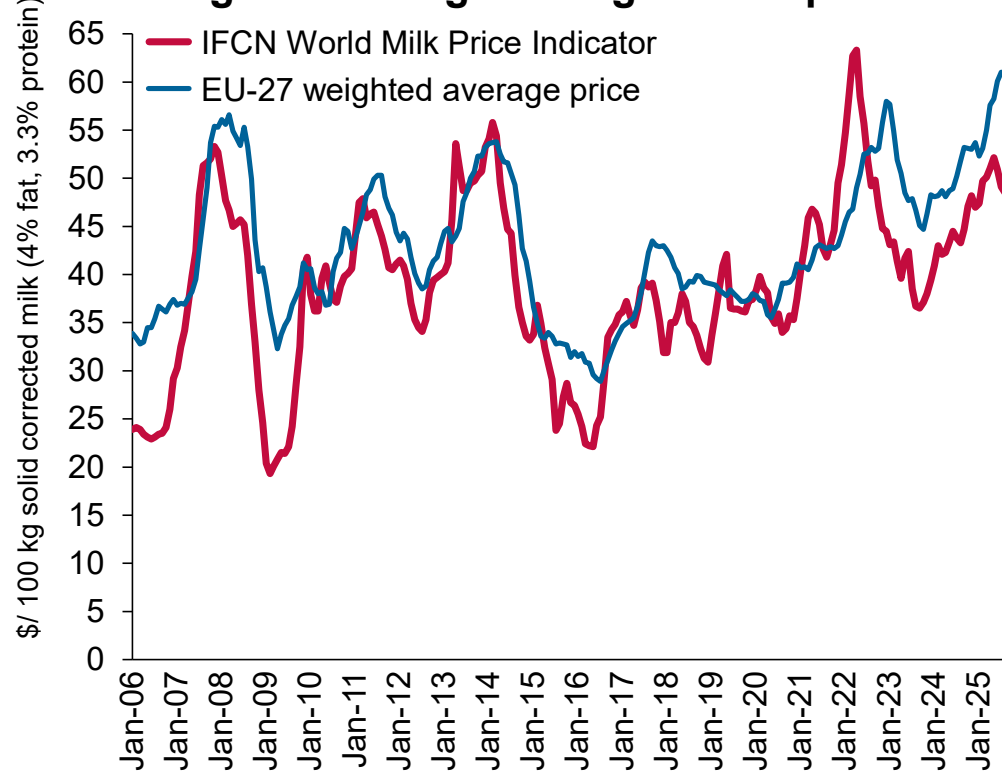
Europe's dairy: looking ahead to 2035

Milk surplus and deficit in 2035

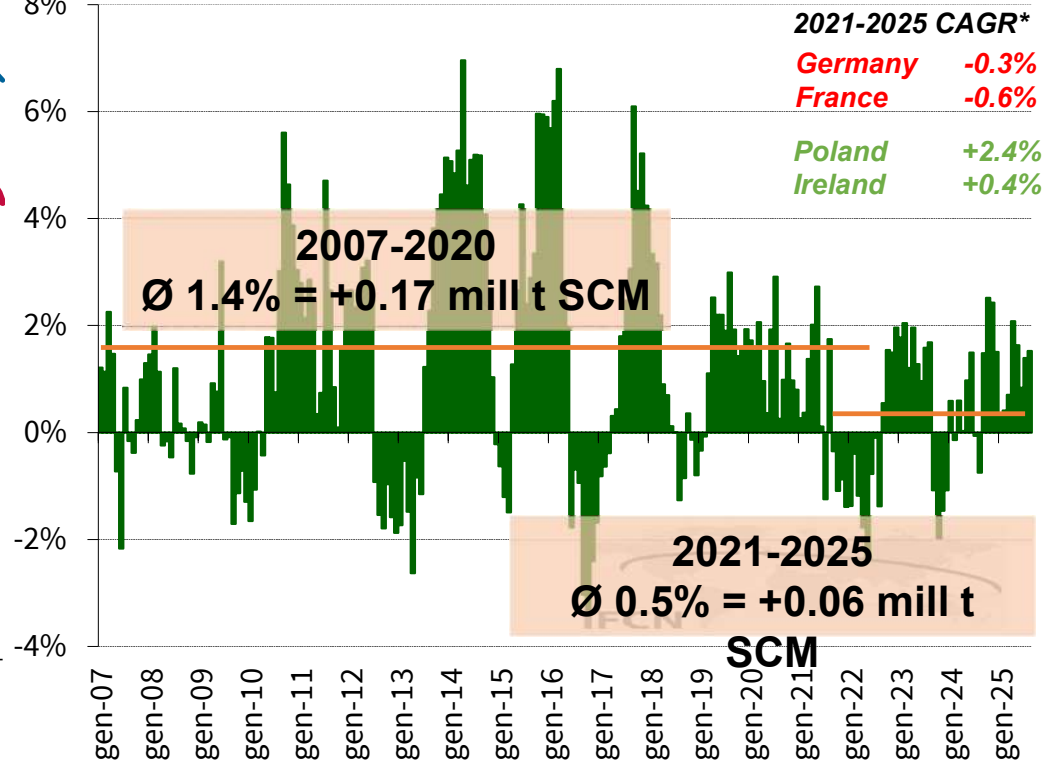


Europe: competitive on price but lagging in milk growth

**IFCN World Milk Price*
vs. EU weighted average farm-gate milk price**



EU-27 monthly milk production (Year-over-Year change)



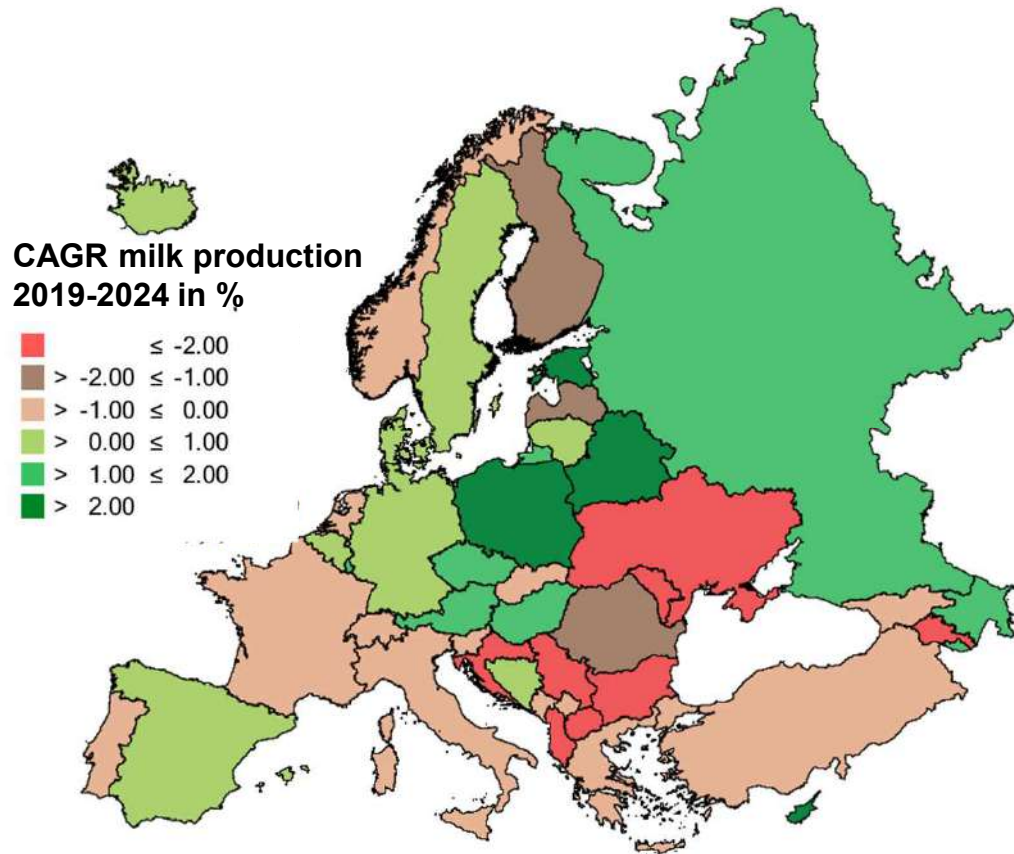
*Based on Oceanian prices for Butter & SMP, WMP, Cheese and Whey (German prices)

Source: IFCN Monthly Real-Time Database; * CAGR Aug 2021 – Aug 2025

Caution: potential shift ahead!

EU west to east shift

Europe milk production growth rate change in last 5 years



Western Europe's traditional dairy regions are **slowing down** with milk, constrained by limited growth, regulations, and an ageing farm base.

Meanwhile, some countries in **Eastern Europe** are **stepping up**, showing resilience and expansion.

The world of milk has changed

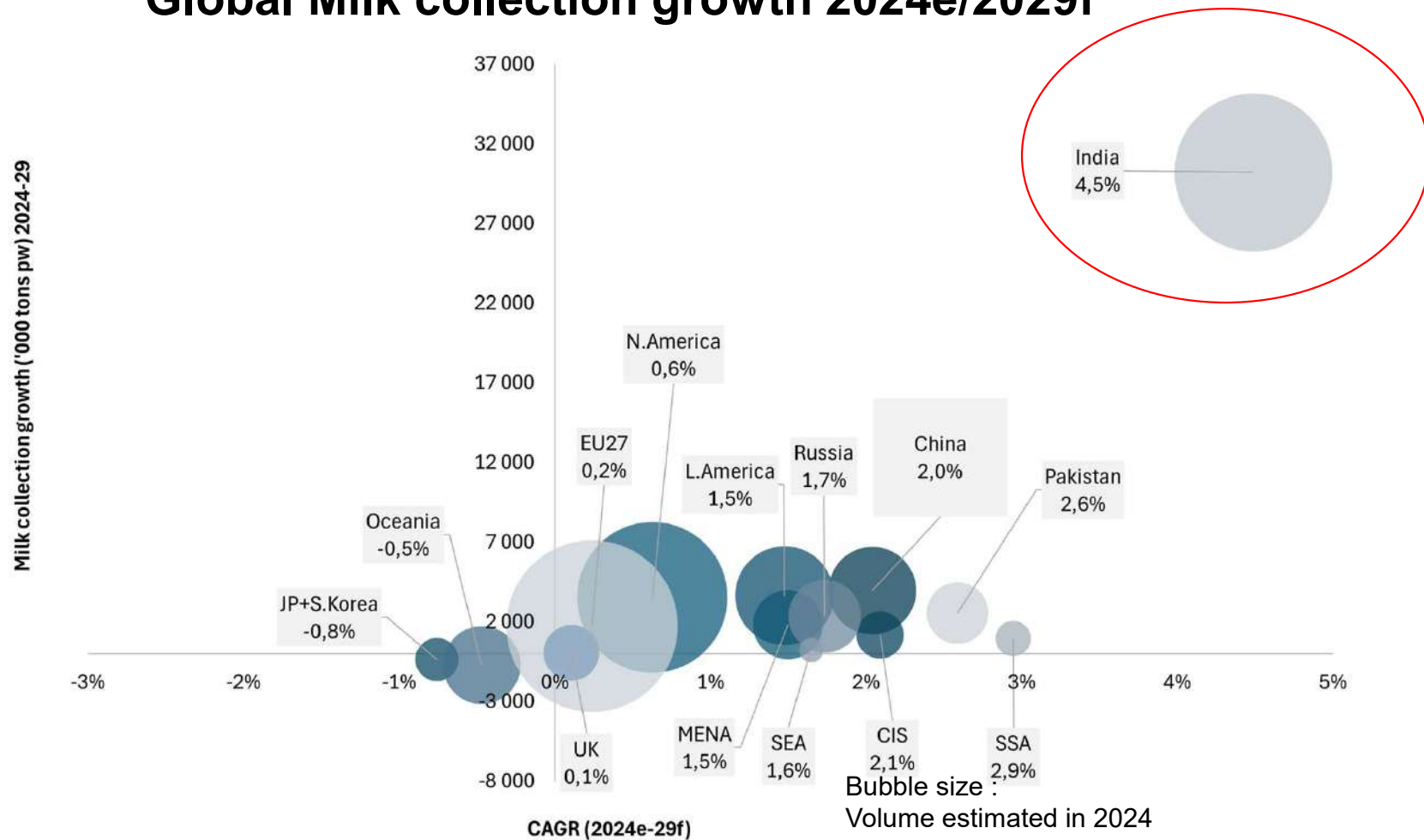
Key trends for the future

Christophe Lafougère, CEO Gira

Milk collection: India will lead the game

+1.6% p.a expected by 2029 at world level

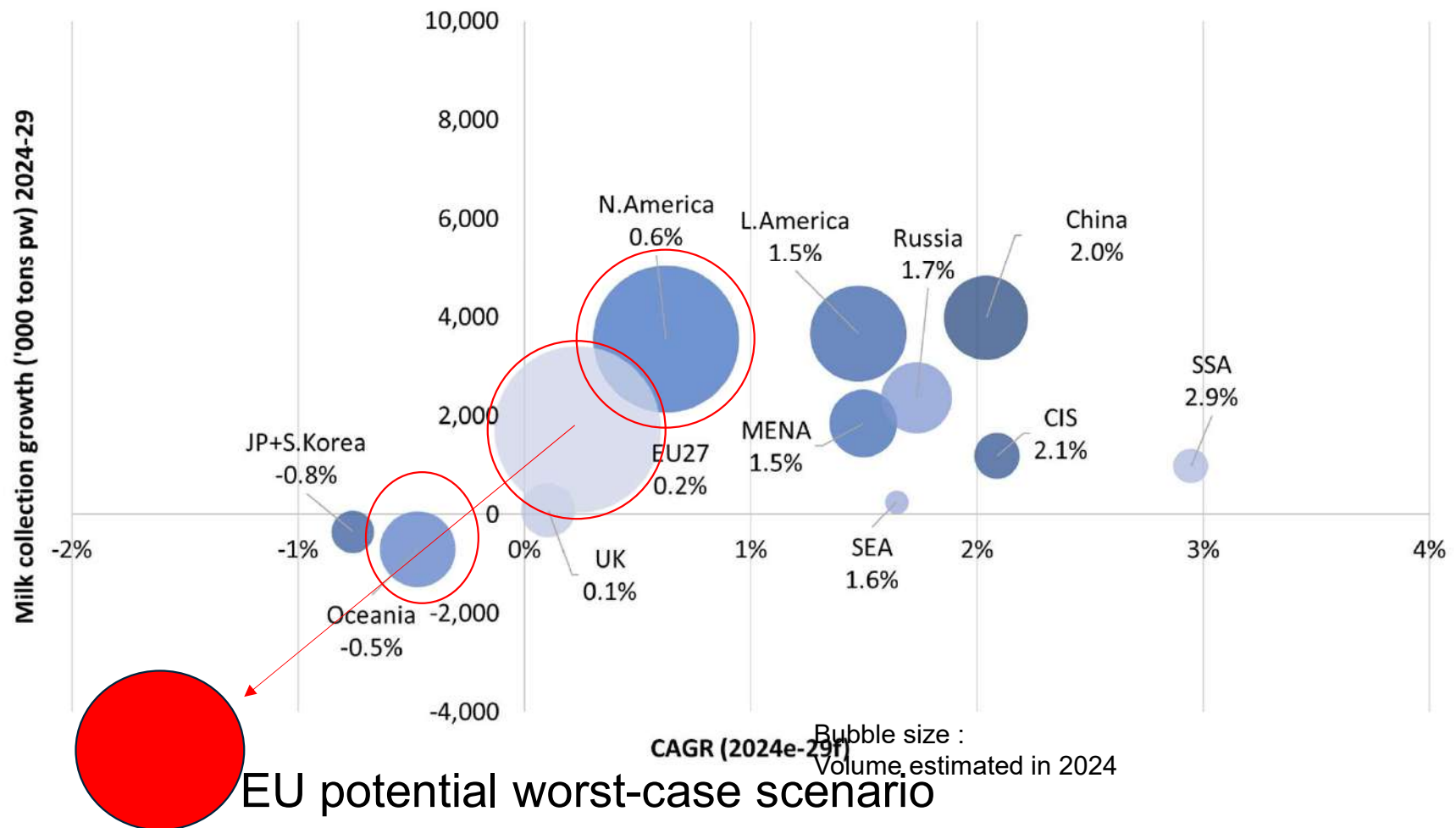
Global Milk collection growth 2024e/2029f



Small/no growth to be expected in top exporting countries

Only +0.8% p.a by 2029 without India and Pakistan

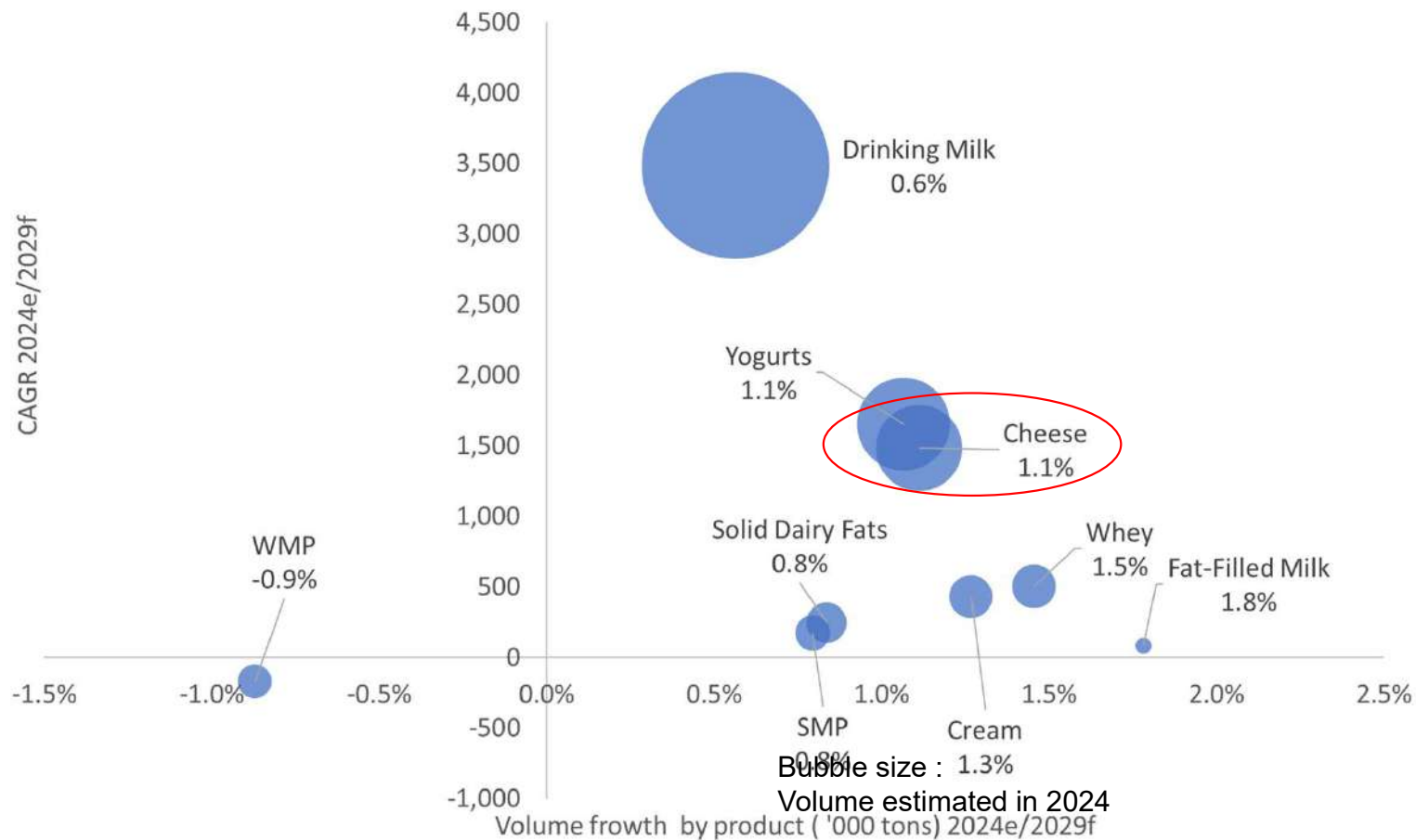
Milk collection growth 2024e/2029f excl. IN & PK



We will produce more and more cheese at world level

+1,1% p.a for the next 5 years

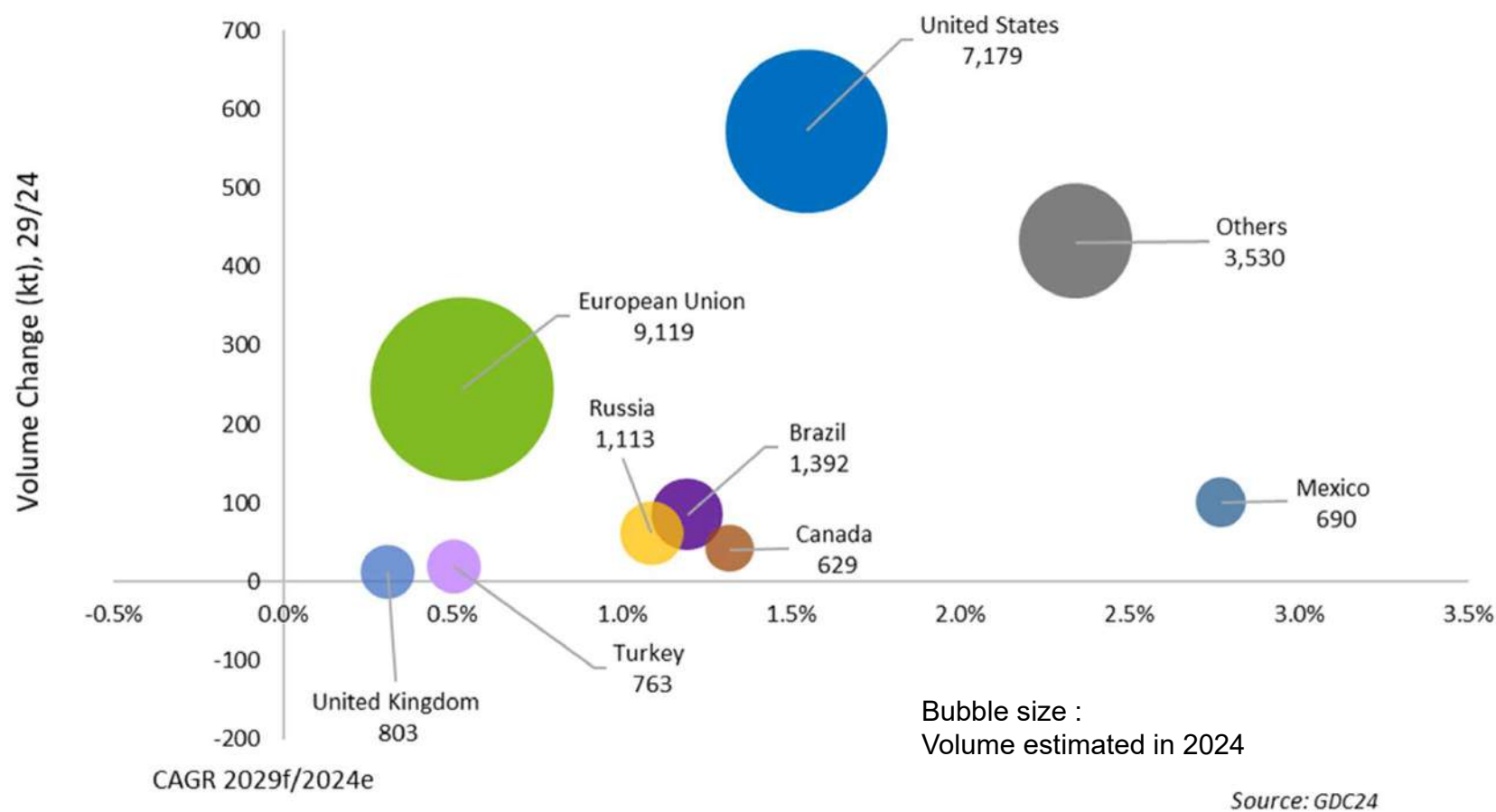
Dairy Production Growth by Product (excluding IN & PK), 2024e/2029f



Because cheese consumption will be really positive

The US will continue to show the highest growth but watch out the “others”

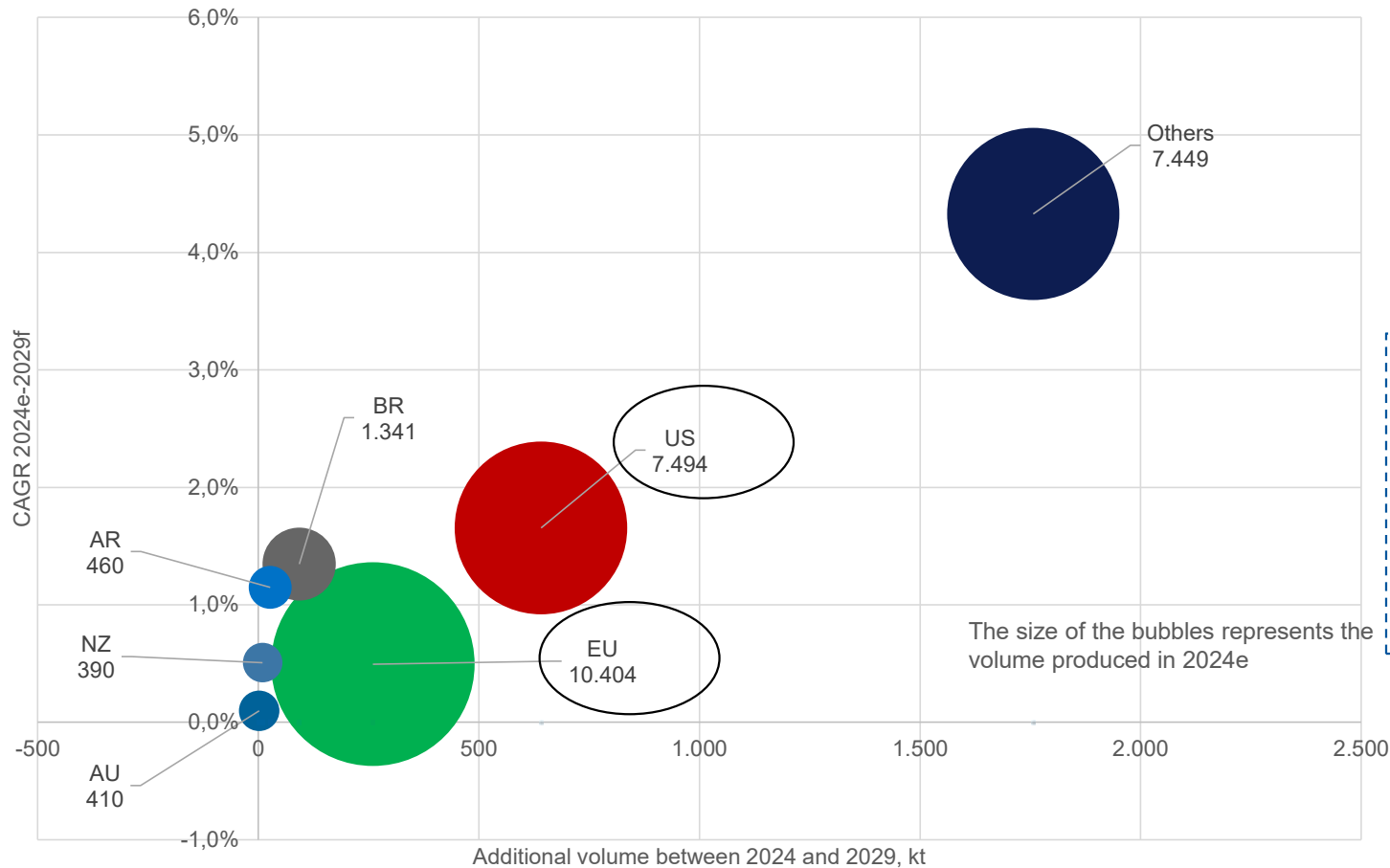
Global Cheese Consumption growth 2024e-2029f (excl. IN & PK)



But more cheese means more co-product: whey

Whey: the main possibility to add value to the milk (will be more expensive)

Global cheese production, 2024e-2029f



EU: +260 kt of cheese

US: +641 kt of cheese

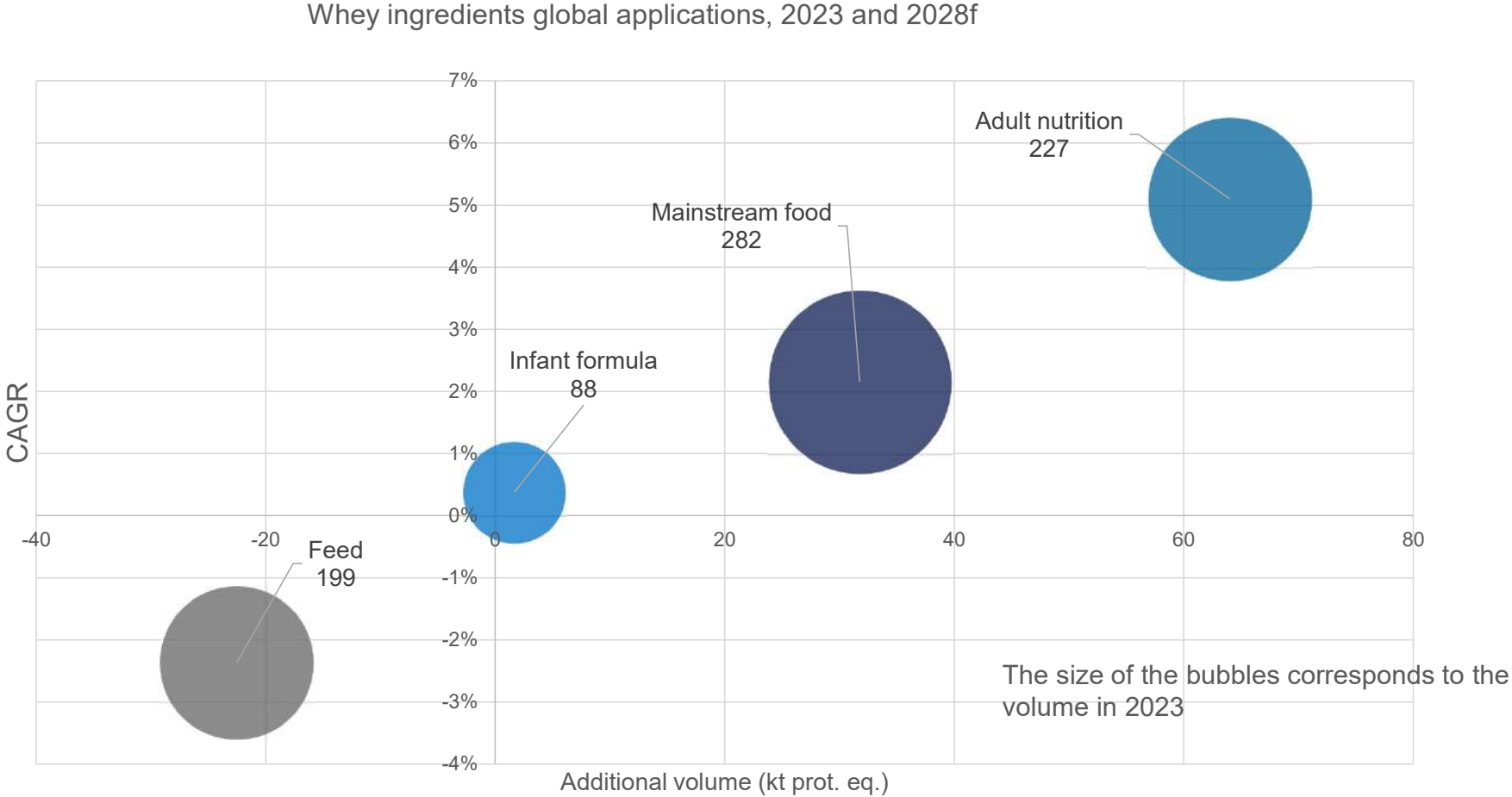
+901 kt of cheese

What does it mean in terms of potential additional volume of whey available?

Potentially +62Kt WPC80 for example

Source: GDC24 synthesis

The appetite for dairy proteins will continue to grow all around the world but we should have enough supply

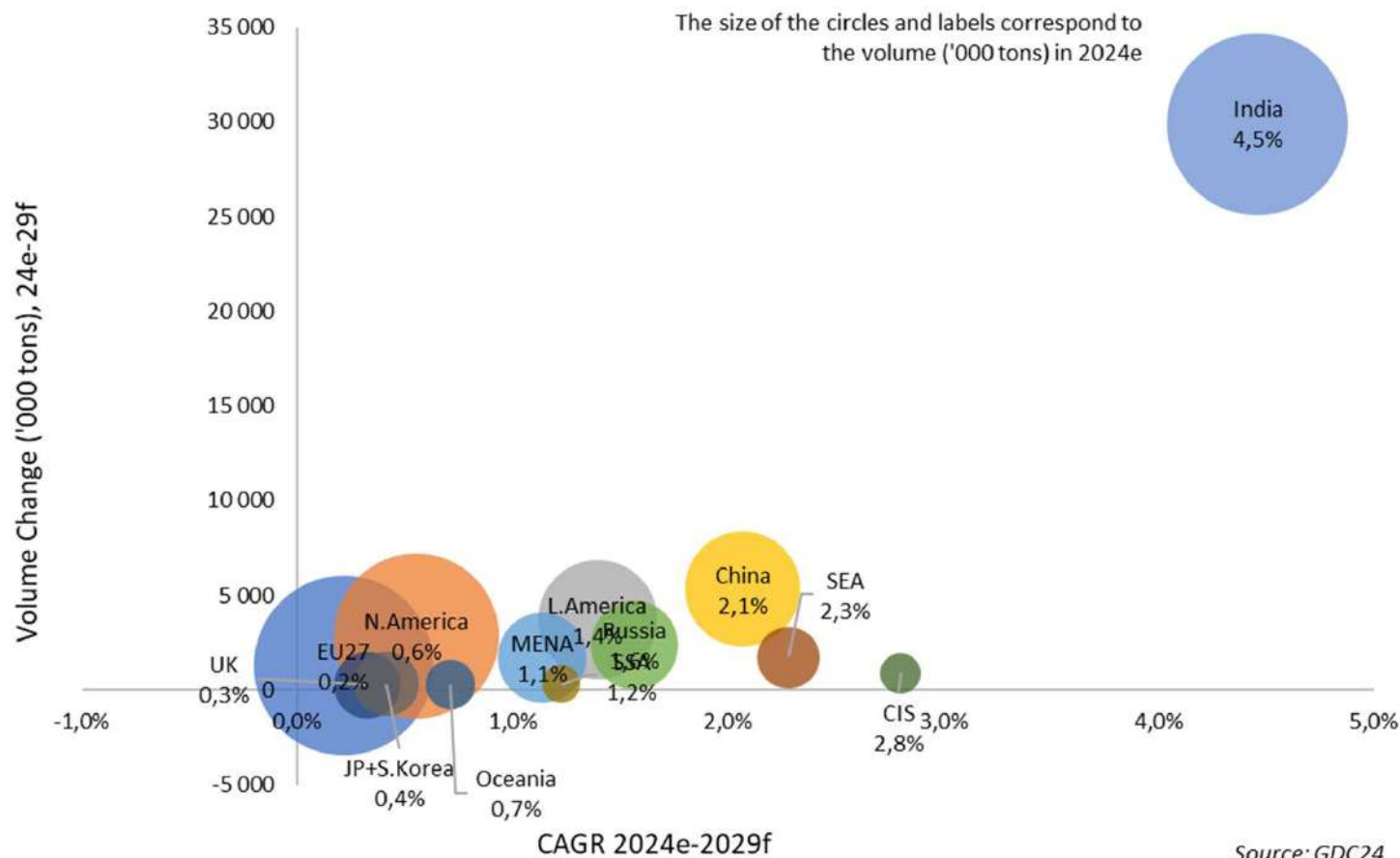


Source: Gira

India will be the place to be but compulsory to be local

More mature markets in the EU/NZ/US

Global Apparent Dairy Consumption in Milk Eq., 2024e to 2029f

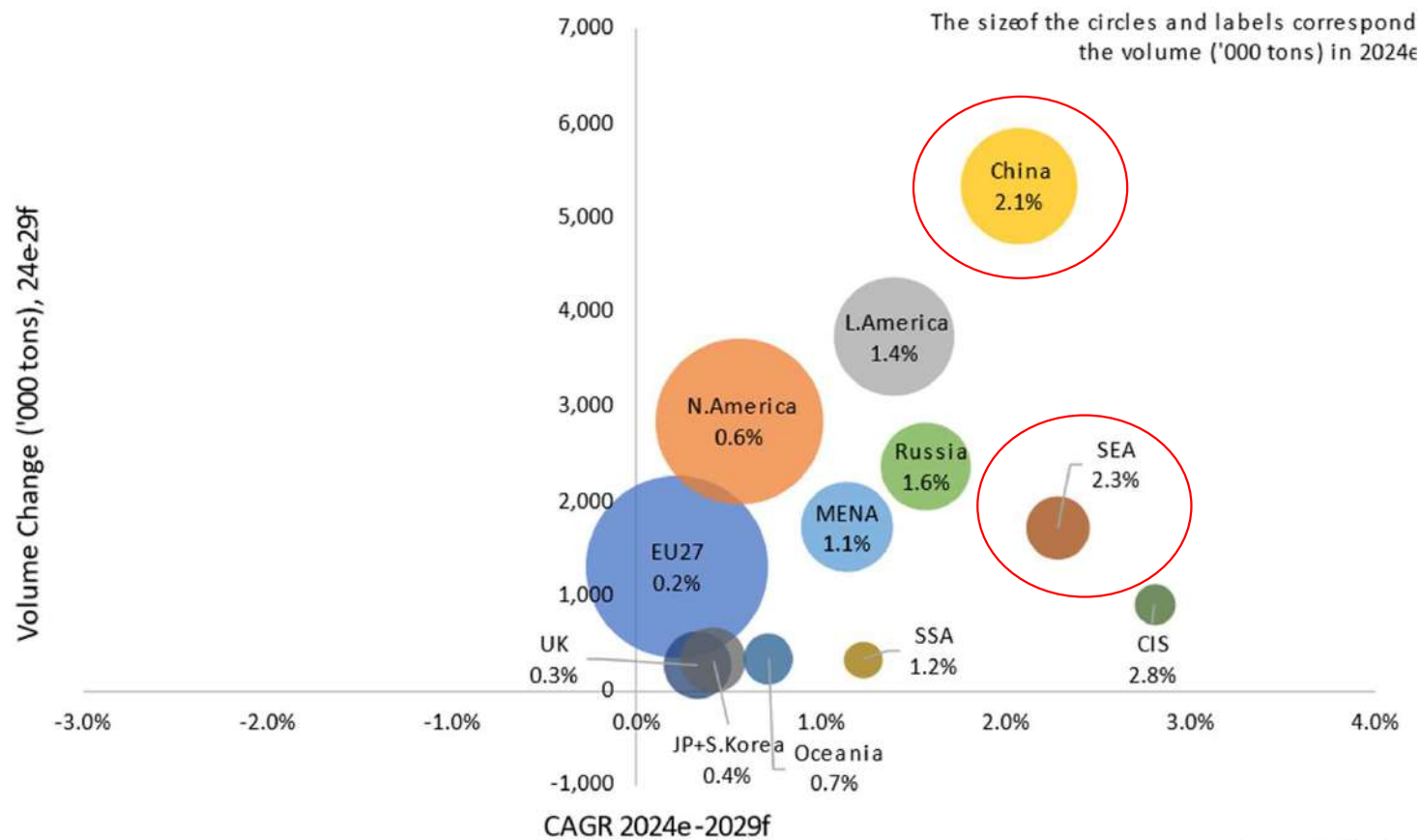


Note: The apparent dairy consumption in milk equivalent is calculated by adding imports and retrieving exports to milk collection all expressed in milk equivalent.

Chinese consumption will continue to grow

But don't forget SEA with little growth of local milk

Global apparent Dairy Consumption in Milk Eq., 2024e to 2029f (excl. IN & PK)

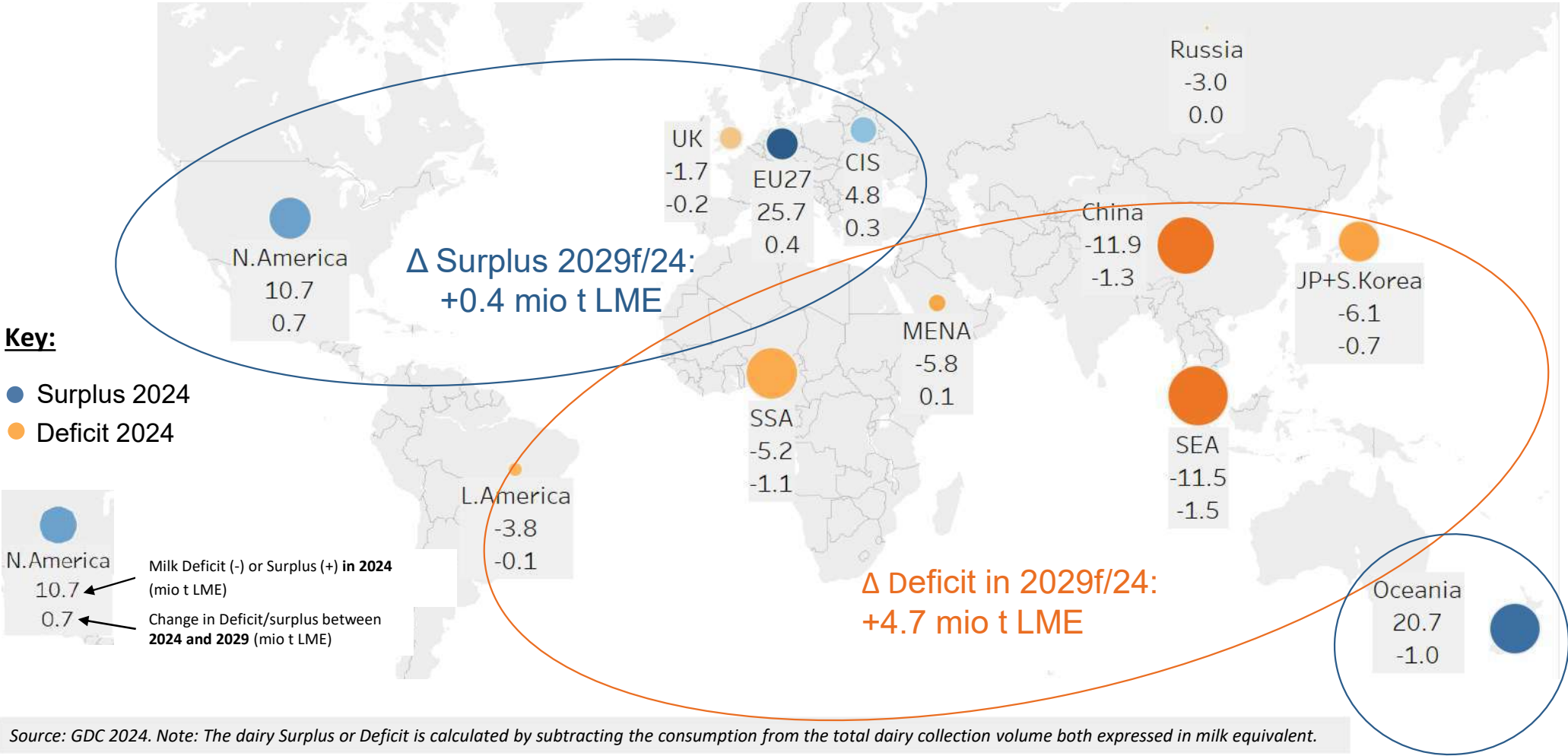


Source: GDC24

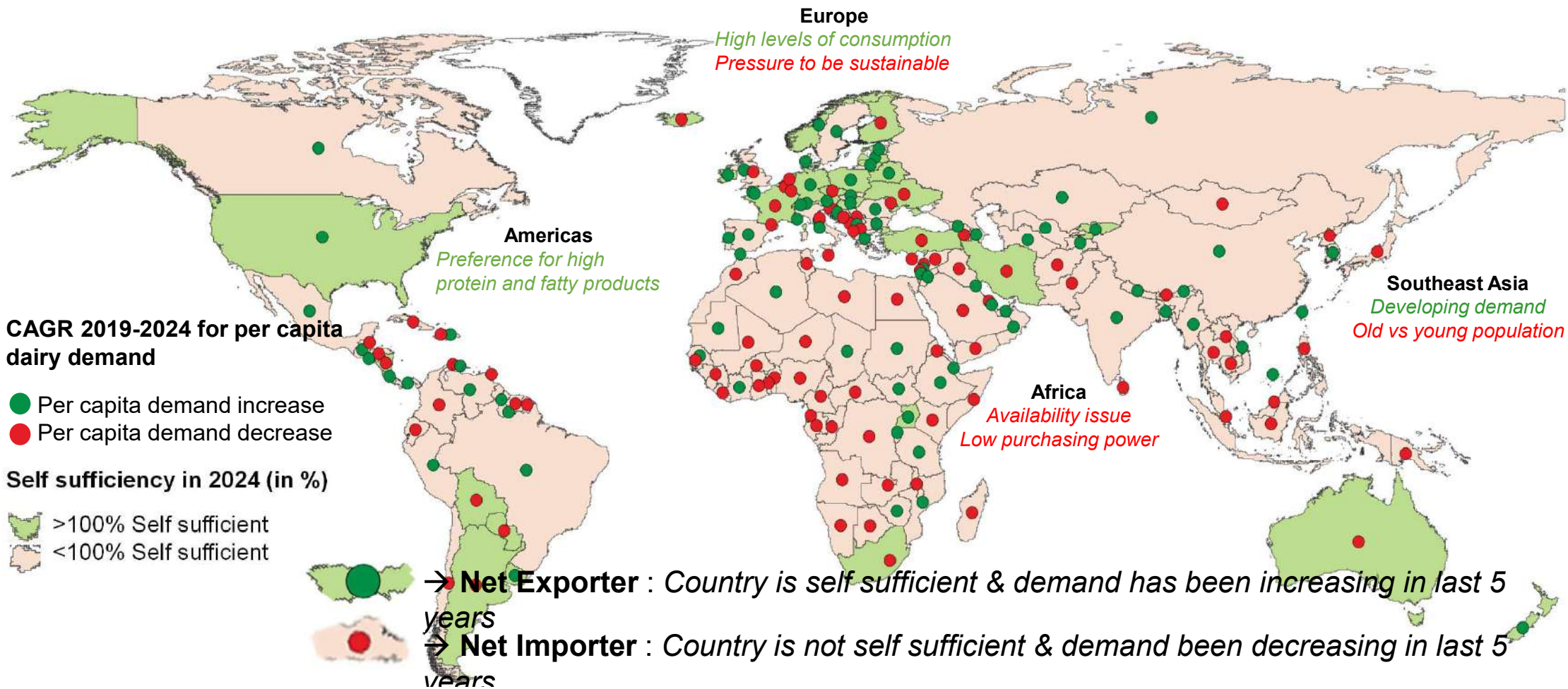
Note: The apparent dairy consumption in milk equivalent is calculated by adding imports and retrieving exports to milk collection all expressed in milk equivalent.

Dairy deficits will continue to increase at a higher rate than surplus

Dairy consumption Deficit & Surplus markets 2024e, & Change to 2029f (excl. IN&PK)

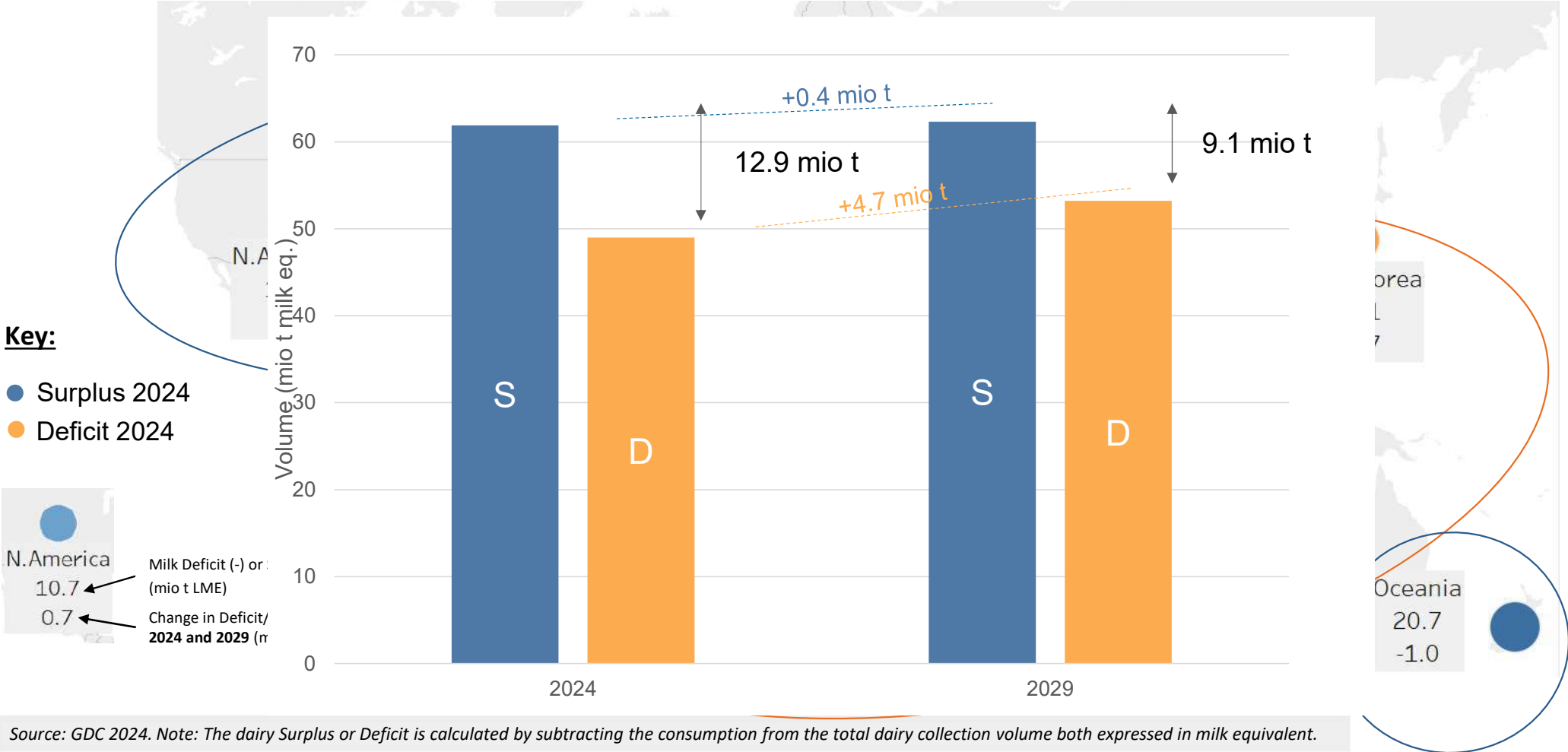


Who can supply? Who must import?



Dairy deficits will continue to increase at a higher rate than surplus

Dairy consumption Deficit & Surplus markets 2024e, & Change to 2029f (excl. IN&PK)



Conclusion: key trends for the next 5 years

- Milk collection: smaller growth to be expected
 - Small/no growth to be expected from top exporting countries
- More cheese will be produced and consumed
- Appetite for dairy proteins will continue to grow around the world, absorbing additional supply of whey
- Dairy consumption will continue to grow but:
 - India will be the place to be but with a local business
 - Chinese consumption will continue to grow but with less imports of commodities
 - Don't forget about SEA
 - At a lower level in our part of the world
- Dairy deficits will continue to increase at a higher rate than surplus
 - Potentially less milk available for the “other” countries in the future
 - Potential role for India as an exporter in the LT future?

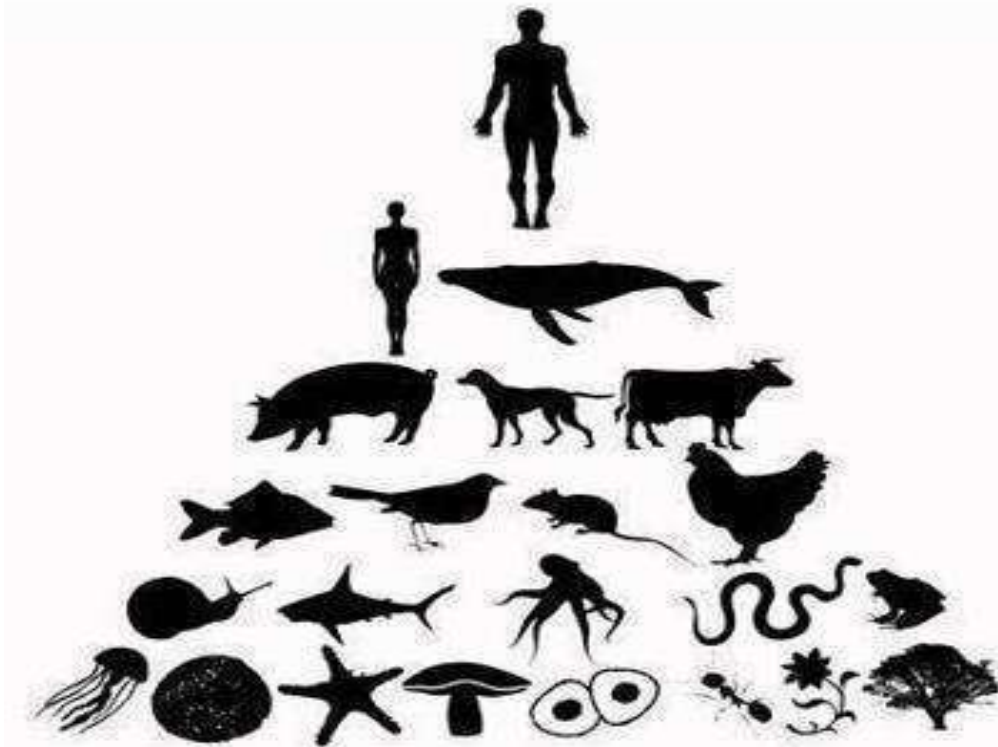




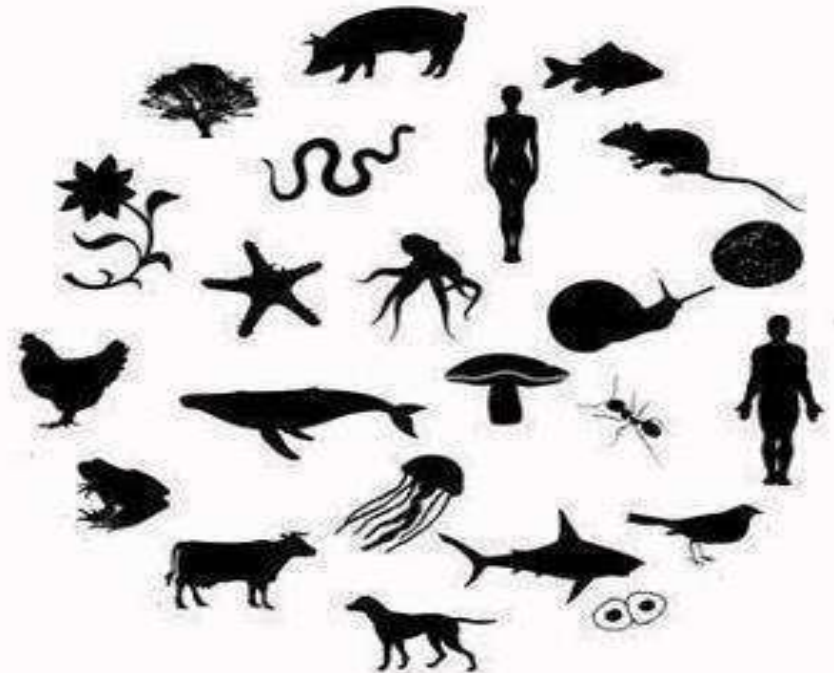
FAO Global Conference on
Sustainable Livestock Transformation
 25–27 September 2023



EGO



ECO



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PIERCRISTIANOBRAZZALE@BRAZZALE.COM



WWW.FIL-IDF.ORG