

# THE ROUND TABLE DAIRY COMPANY OF THE FUTURE



КРУГЛЫЙ СТОЛ МОЛОЧНАЯ КОМПАНИЯ  
БУДУЩЕГО



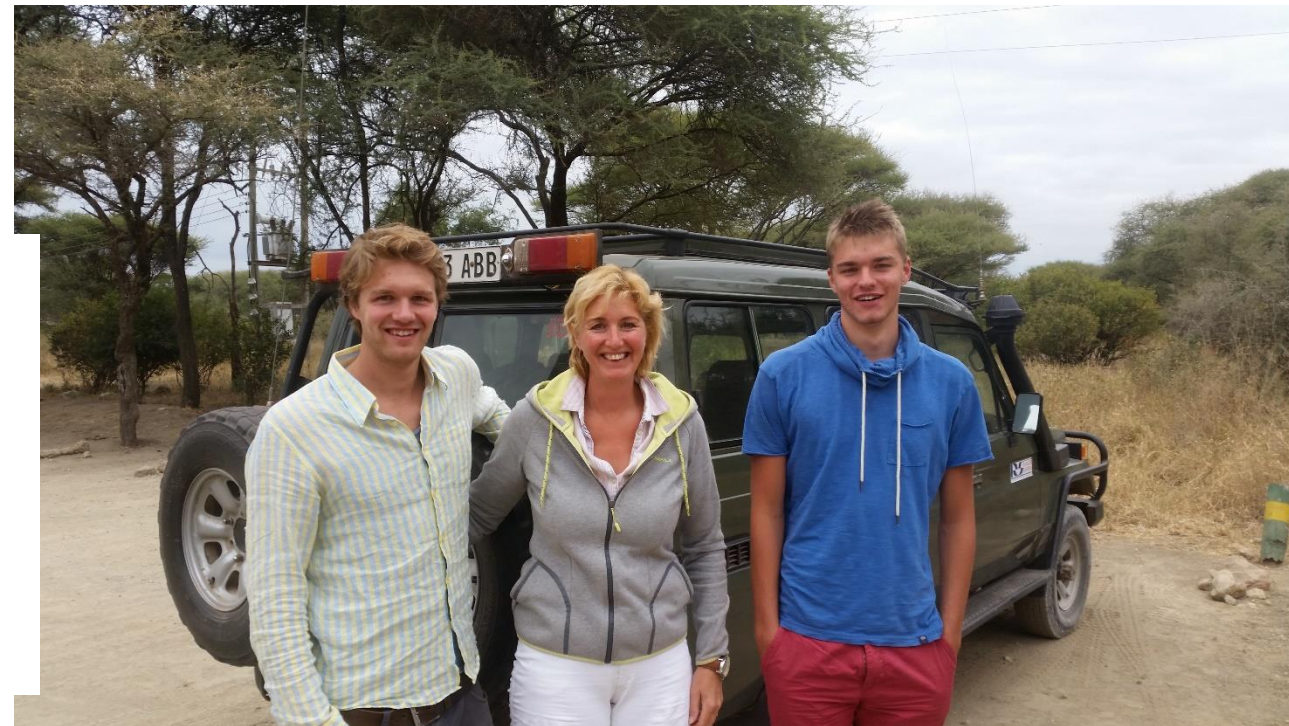
# Round Table GDF/DairyNews

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- Introduction Ad van Velde
- What's happening in the world around the dairy business?
- What does it mean on farm(management) level?
- Further cooperation between GDF and Russia/DairyNews
- Conclusions

THE ROUND TABLE  
**DAIRY  
COMPANY**  
OF THE FUTURE

МОЛОЧНАЯ КОМПАНИЯ  
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# What's happening in the world and what is the impact on the dairy business?

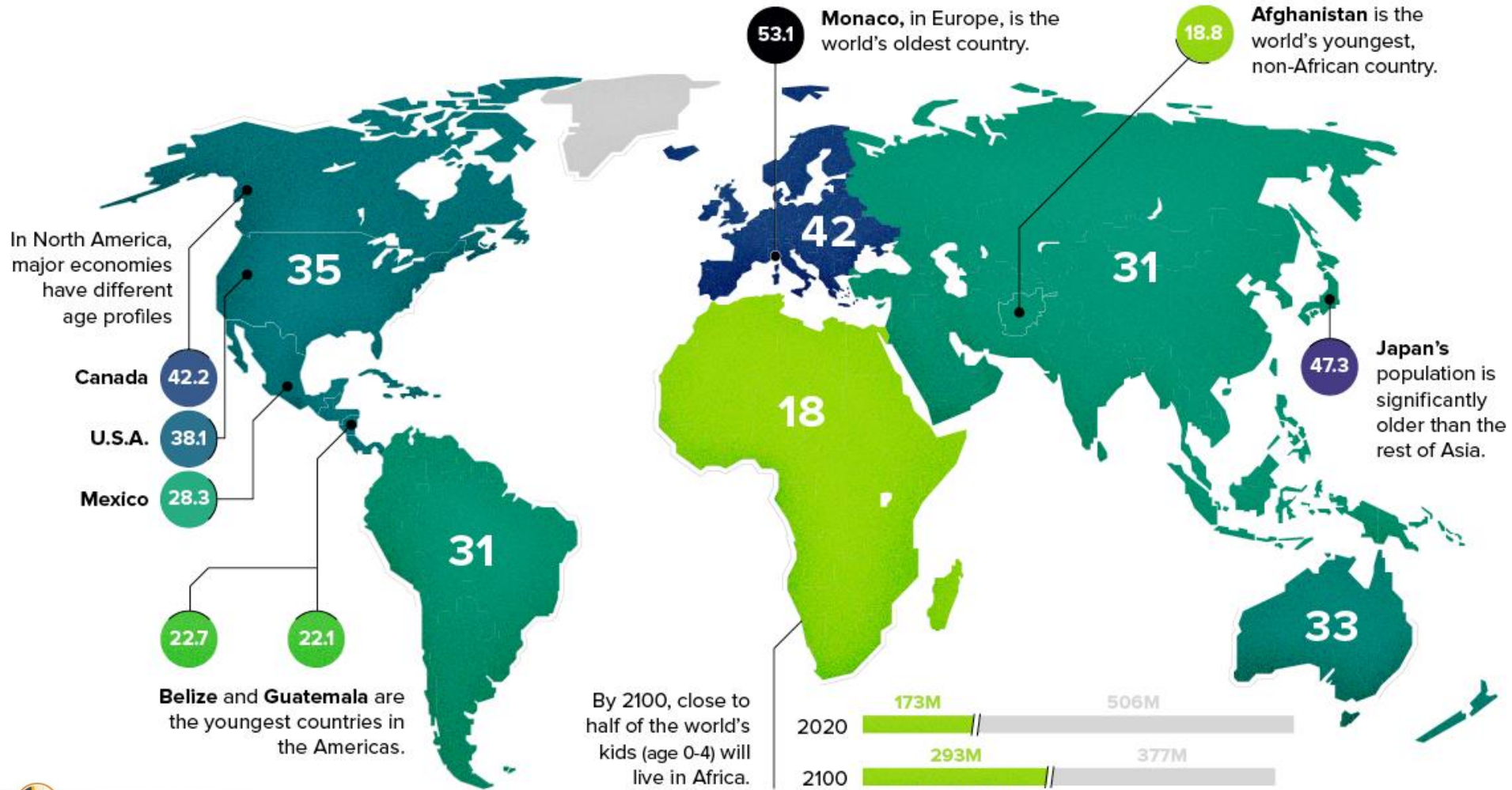
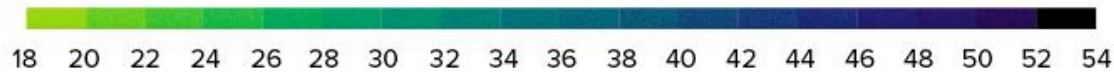
And.....where, how and who will produce this milk?

My perspective:

- Dairy farming in the Netherlands for many generations.
- Netherlands produces 14 billion kg milk (Russia about 16 billion)
- 70% export
- President of Global Dairy Farmers
- Partner DairyNext



# MEDIAN AGE



By 2100, close to half of the world's kids (age 0-4) will live in Africa.



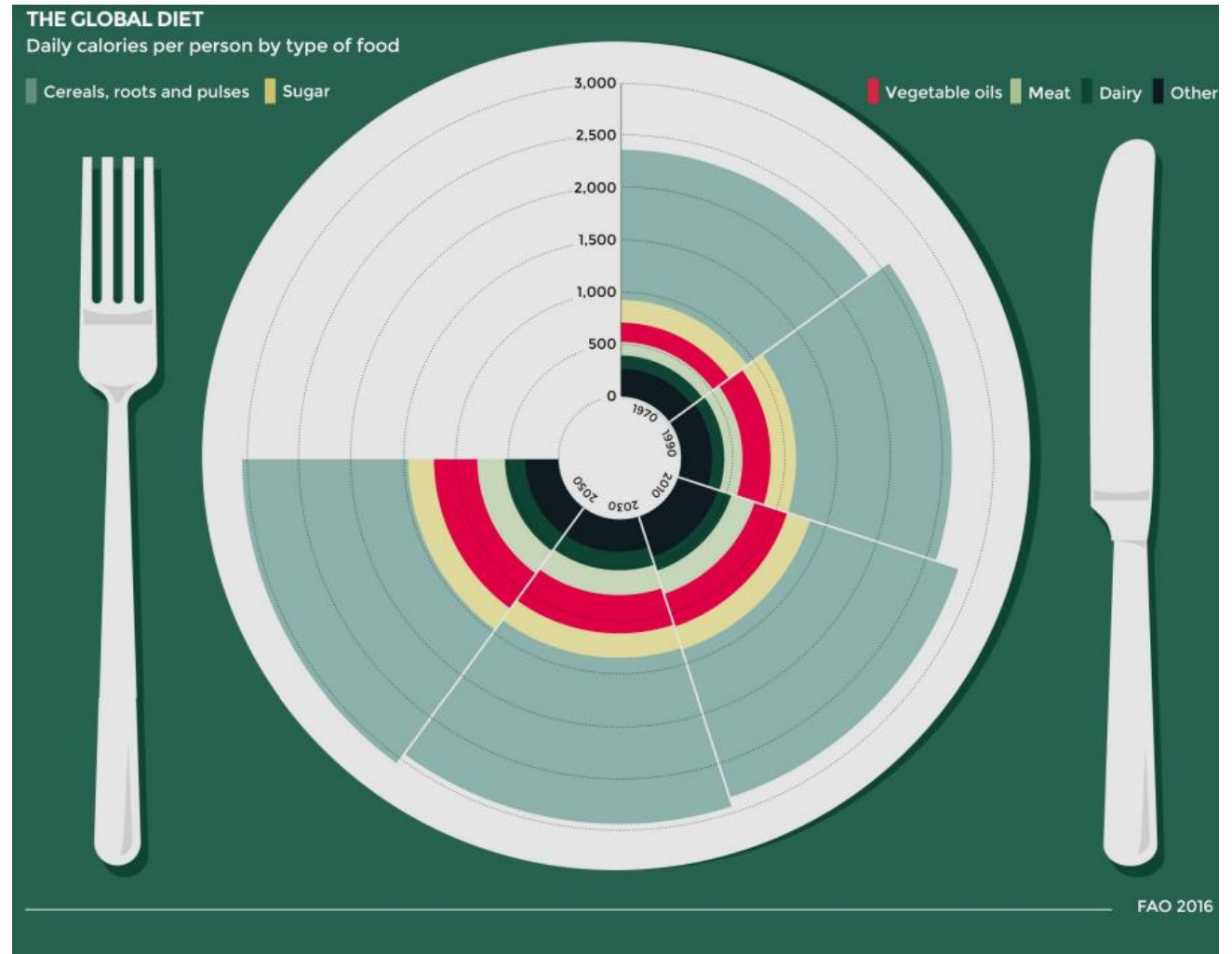




2017			2030			2050		
Rank	Country	Population	Rank	Country	Population	Rank	Country	Population
1	China	1 410	1	India	1 513	1	India	1 659
2	India	1 339	2	China	1 441	2	China	1 364
3	United States of America	324	3	United States of America	355	3	Nigeria	411
4	Indonesia	264	4	Indonesia	296	4	United States of America	390
5	Brazil	209	5	Nigeria	264	5	Indonesia	322
6	Pakistan	197	6	Pakistan	244	6	Pakistan	307
7	Nigeria	191	7	Brazil	225	7	Brazil	233
8	Bangladesh	165	8	Bangladesh	186	8	Bangladesh	202
9	Russian Federation	144	9	Mexico	148	9	Dem. Rep. of the Congo	197
10	Mexico	129	10	Russian Federation	141	10	Ethiopia	191
11	Japan	127	11	Ethiopia	140	11	Mexico	164
12	Ethiopia	105	12	Philippines	125	12	Egypt	153
13	Philippines	105	13	Japan	122	13	Philippines	151
			14	Democratic Republic of the Congo	120	14	United Republic of Tanzania	138
			15	Egypt	120	15	Russian Federation	133
			16	Viet Nam	106	16	Viet Nam	115
						17	Japan	109
						18	Uganda	106

- Strong growth in Africa/Asia
- India?
  - Self sufficient
  - Economic world power?
- Nigeria, Indonesia, Pakistan, Ethiopia; upcoming world powers

- Dairy will remain to be an important part of the Global Diet
- Daily calories intake will grow, the “dairy part” will grow simultaneously



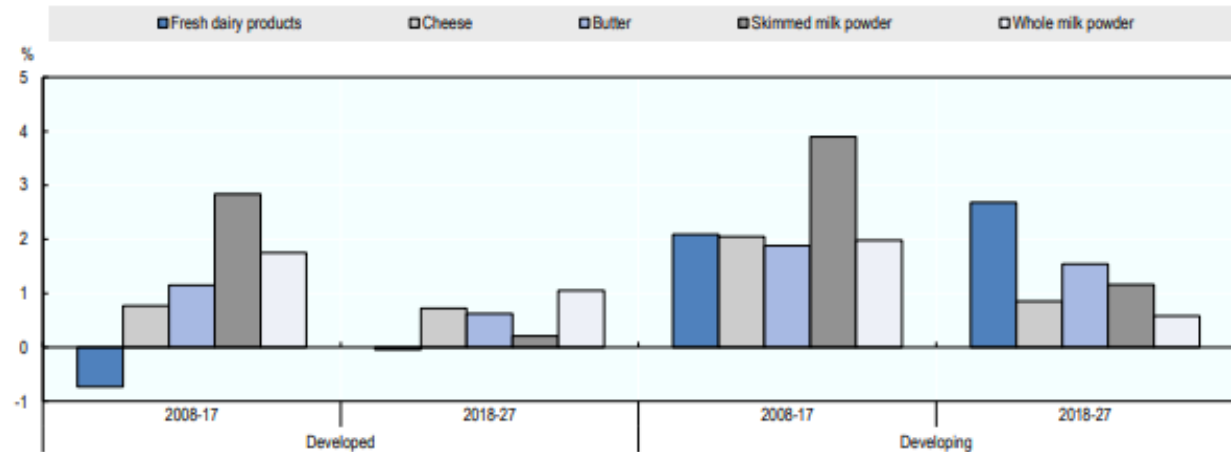
World milk production (thousand tonnes)			
	2017	2018	Change 2018 over 2017 (%)
<b>World</b>	<b>824 801</b>	<b>842 989</b>	<b>2.2</b>
India	176 272	186 143	5.6
EU 28	165 600	167 256	1.0
United States	97 735	98 646	0.9
Pakistan	44 294	45 623	3.0
Brazil	35 257	35 539	0.8
China	31 958	31 592	-1.1
Russian Fed.	31 184	31 527	1.1
Turkey	20 700	22 791	10.1
New Zealand	21 341	21 372	0.1

World total milk imports (thousand tonnes milk equivalents)			
	2017	2018	Change 2018 over 2017 (%)
<b>World</b>	<b>72 910</b>	<b>74 967</b>	<b>2.8</b>
China	13 538	14 615	8.0
Mexico	3 965	4 202	6.0
Algeria	3 431	3 835	11.8
Russian Fed.	4 498	3 700	-17.7
Indonesia	2 736	2 981	9.0
Saudi Arabia	2 984	2 790	-6.5
Philippines	2 296	2 501	8.9
Malaysia	2 179	2 389	9.7
Japan	2 171	2 211	1.8

- Production growth in general, especially India, Pakistan and Turkey
- Russia reduced their imports

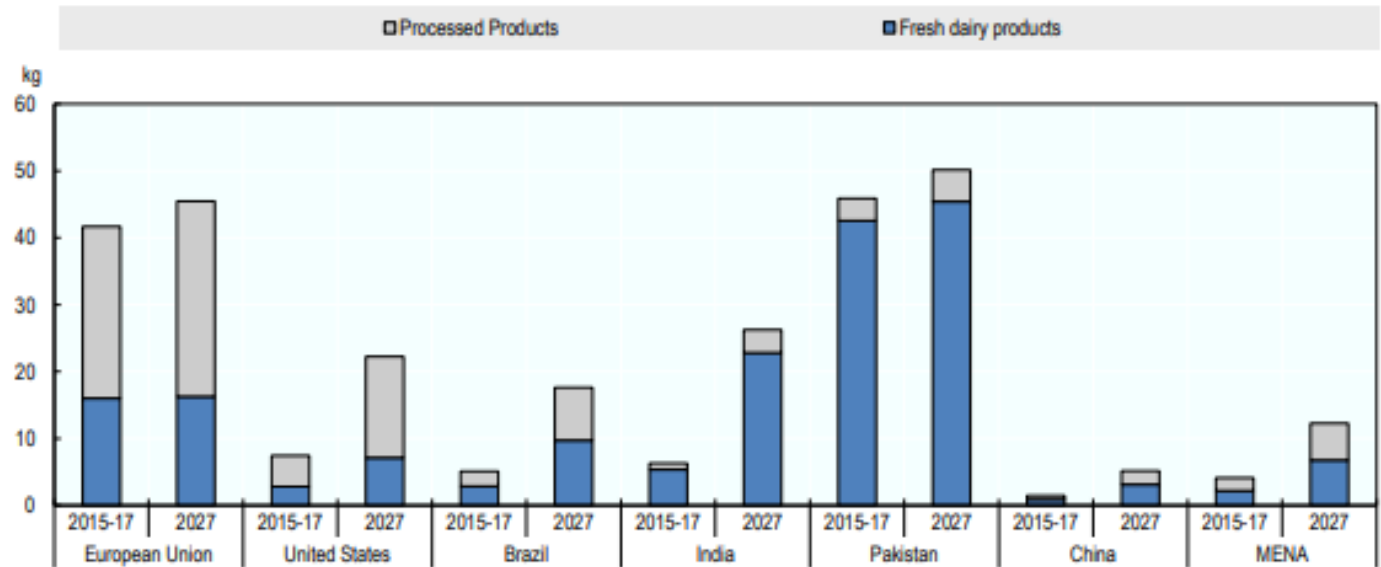
# Annual growth rates of per capita consumption for dairy products

- Even consumption growth in developed countries
- Challenging future for powder



Source: OECD/FAO (2018), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database).

Per capita consumption, now and in 2027.



*Note:* Milk solids are calculated by adding the amount of fat and non-fat solids for each product; Processed products include butter cheese, skim milk powder and whole milk powder.

*Source:* OECD/FAO (2018), "OECD-FAO Agricultural Outlook", OECD Agriculture statistics (database),



**Animals farmed**

# Can the world quench China's bottomless thirst for milk?

China's leaders have championed milk as the emblem of a modern, affluent society - but their radical plan to triple the nation's consumption will have a huge environmental cost.

# CHINA

China wants to triple their production

Milk is becoming the emblem of the modern Chinese society

Transition has been driven by Chinese leaders



# China; ever increasing thirst of milk

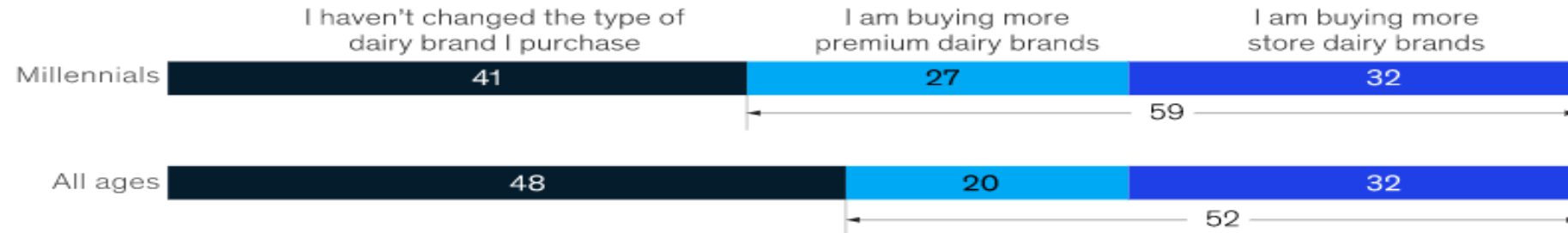
- Prediction: 3 times higher demand in 2050 compared to the level 2010!
- What are environmental implications?
  - GreenHouseGas emissions increase with 35%
  - Land use for dairy +32%
  - Huge import increases of feed and concentrates
- Current dairy exporting countries may be unable to produce all additional milk
  - Increase farmland NZ +57% and EU +39%
- Solution?
  - China; improving domestic production (milk + feed)





**The dairy industry sees diverse consumers who exhibit a shifting range of preferences and behaviors.**

**Dairy-product-purchasing preferences, % of respondents<sup>1</sup>**



<sup>1</sup>Question answered by 1,139 consumers: Which statement best describes your purchasing of dairy products?

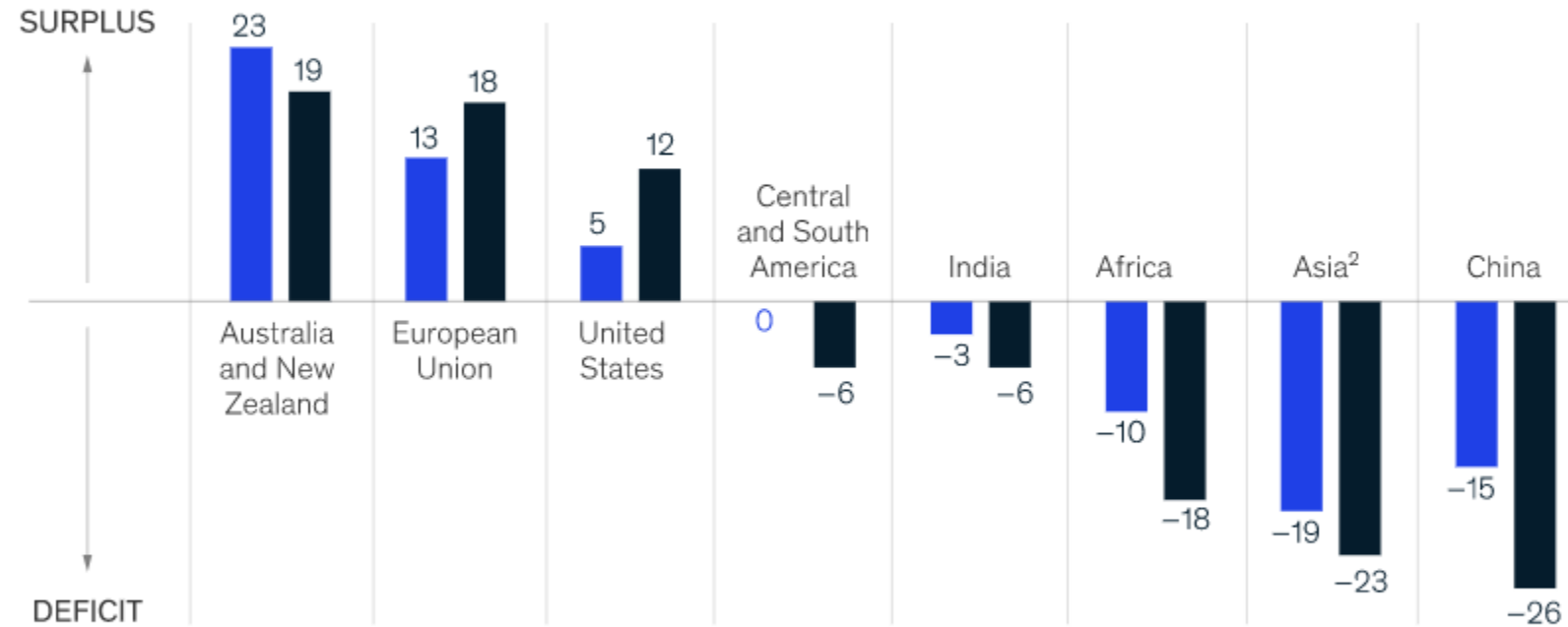
McKinsey  
& Company

# Innovations vs traditional dairy industries

## With much of the planet in deficit for dairy, there is a large, long-term opportunity to capture.

Dairy surplus/deficit in 2017 and 2027,<sup>1</sup> million tons of milk equivalent

■ 2017 ■ 2027

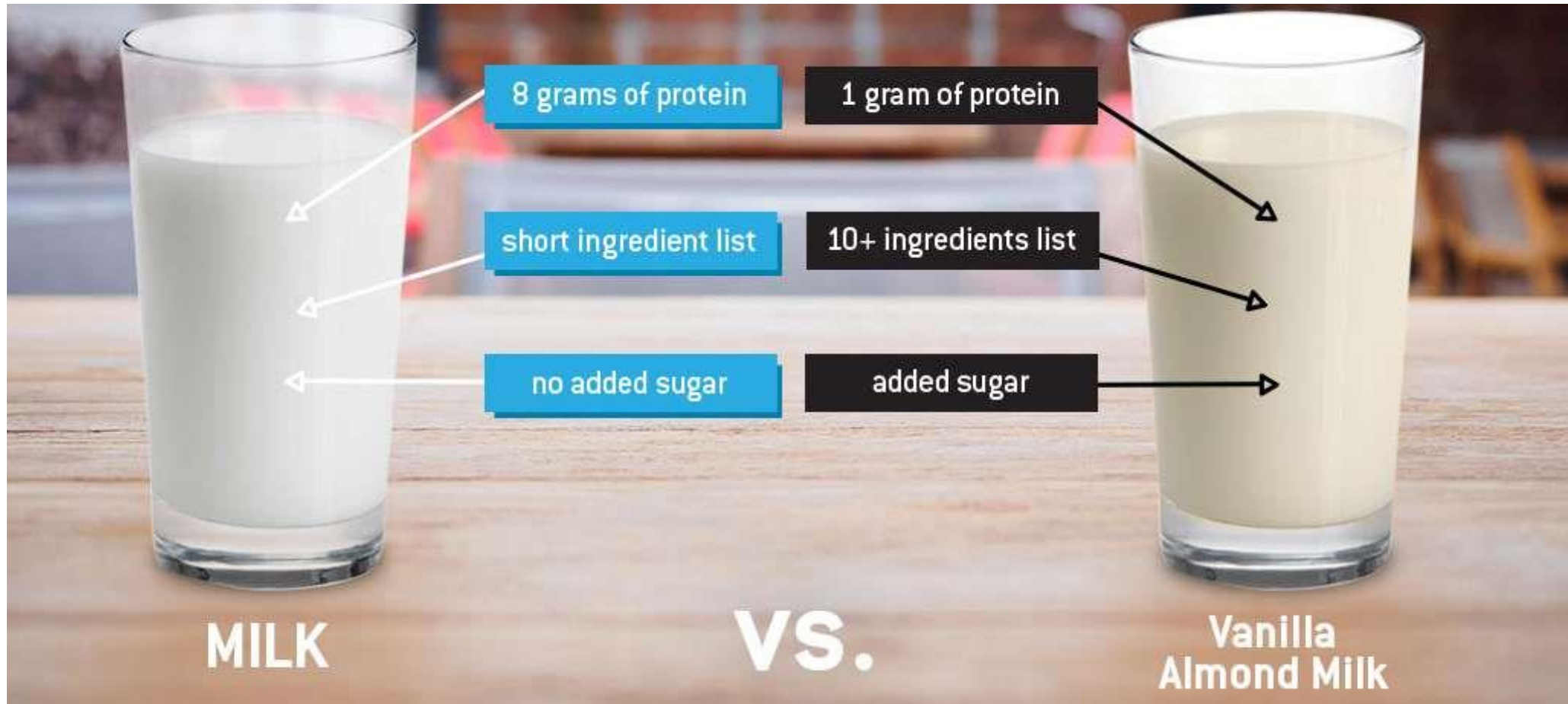


<sup>1</sup>Based on data from 95 countries.

<sup>2</sup>Asia excluding China and India.

McKinsey  
& Company

# Plant versus Cow



## Plant-based competition for dairy is on the rise compared with 2015.

Prospects for the nondairy-alternative market, % of respondents<sup>1</sup>



<sup>1</sup>Question answered by 56 dairy CEOs: Which statement best describes your sentiment on the prospects for the nondairy-alternative market?

McKinsey  
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Traditional dairy industry has to learn from plant-based dairy success!  
The world is big enough for both consumer markets and on the long term real dairy will win. Look at butter vs margarines.

# Butterfat !

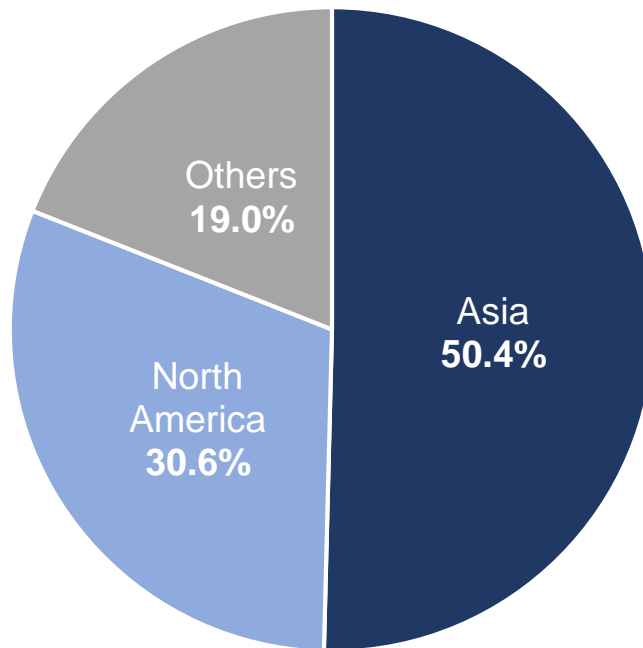
- Consumers turned back to butter:
  - Industry communicate the health of dairy fats
  - Image butter changed to natural and superior tasty

Europe, USA and other markets bought into the good story around dairy fats, and demand for butter grew gradually in many markets.



# Asia accounted for just over half of global alternative milk sales during 2013

Global Milk Alternative Market  
by Geography  
2013



- Asia is the leading regional market for alternative milks
  - Strong cultural roots in alternative milks
  - Asia is also growing more quickly than any other geography
- North America is second largest and second fastest growing region
- Africa, Europe, Latin America, and the Middle East make up less than 20% of the global alternative milk market

Source: BCC Research

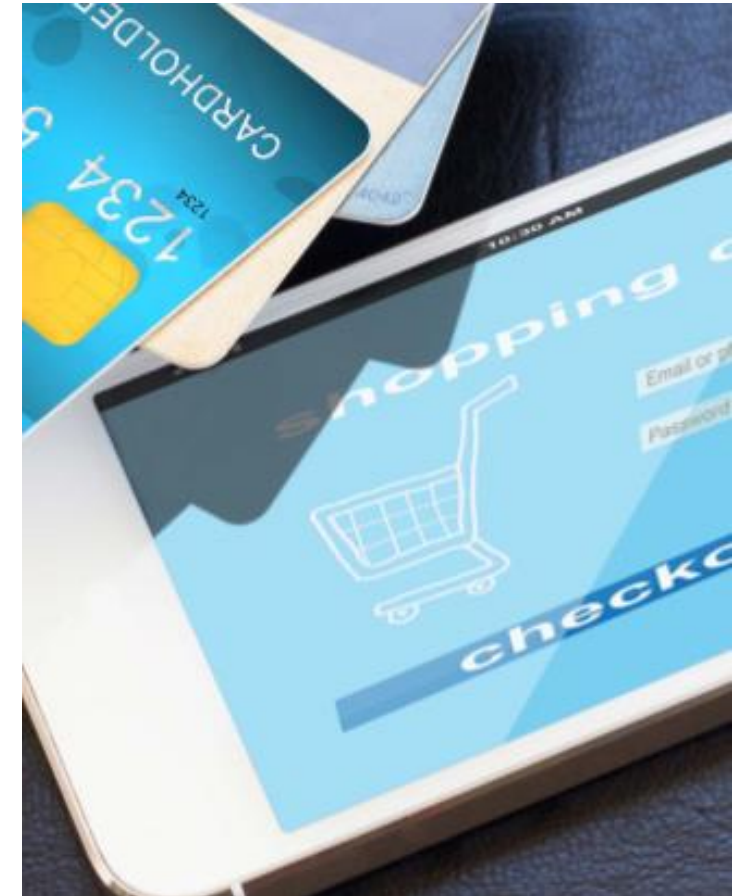
# Environment & sustainability

- Go green
  - Reduction food waste in half by 2025
  - Marketing a “Green Image”
- Demand for a clean label
  - “Clean”, “natural” and “free from”
  - Dairy and bakery products are related to Clean Label
- Health and wellness
  - Healthy ageing
  - Better labelling



# Dairy products

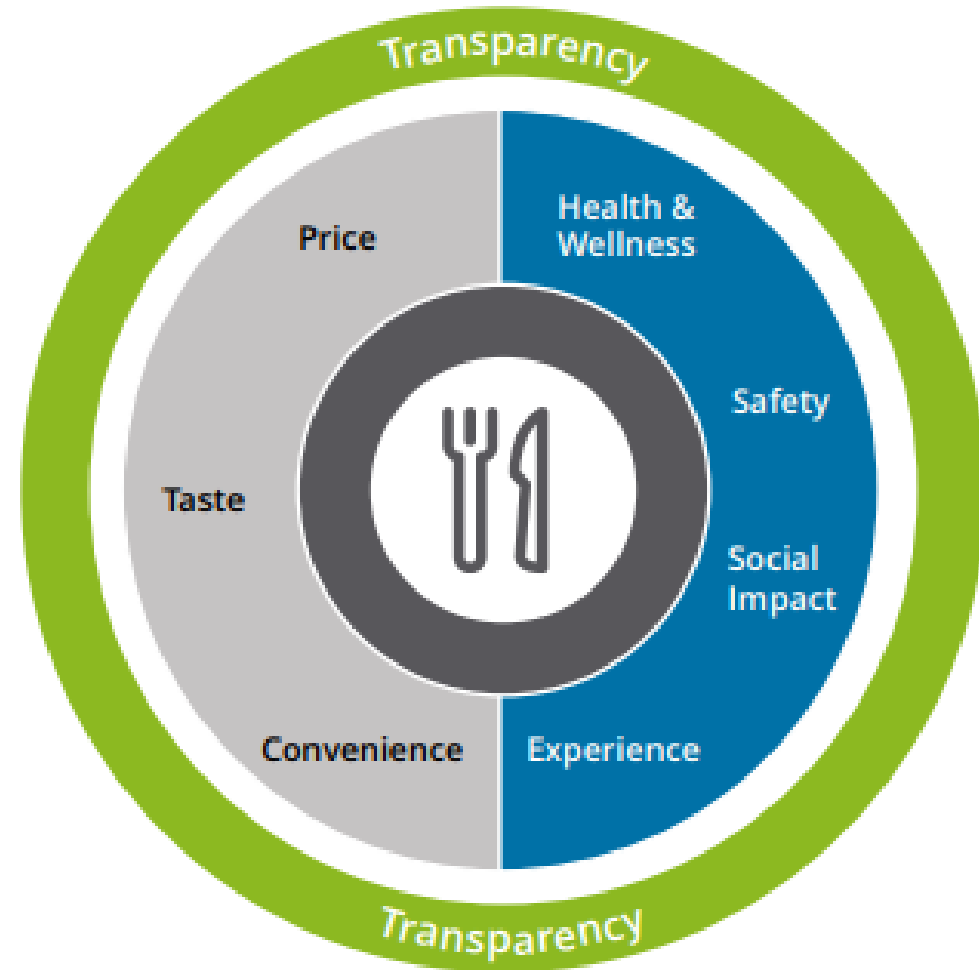
- Experimenting with flavors
  - number of customers willing to experiment with new flavors are on the rise.
  - Companies can use innovative dairy food trends to their advantage to provide the customers with innovative offerings. Offering a different sensory experience is a way for enticing customers who are on the lookout for something new and innovative. Novelty is something that is a sure shot at attracting modern customers. Consequently, companies who seek to be ahead of the curve have to experiment with such dairy food trends.
- Growth in protein consumption
  - Dairy convenient and relatively cheap source of protein
  - Expansion in the sports nutrition market
- Growth of online and mobile shopping
- Growth in clinical nutrition
  - Casein/whey proteins used in medicines



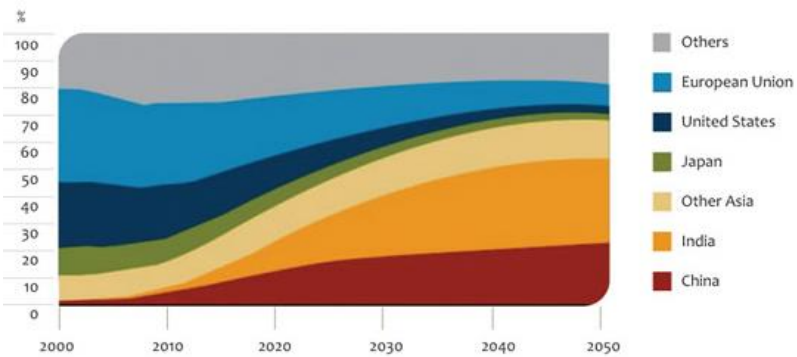




## Traditional and Evolving value drivers



Shares of global middle-class consumption, 2000 - 2050



# Conclusions macro-economic



**Milkproduction has to increase worldwide**



**Who will deliver the milk to Asia(China) and Africa?**

Management + margins locally has to improve

Europe; high added value, sustainable, only reliable business model (Netherlands,Ireland)

New Zealand; close to growing markets, milkpowder

USA; commodity



# What does it means on farm level?

- How do we manage dairy farms in 2030/2040?
- Last 30 years a great move ahead:
  - Productivity
  - Quality of the dairy products
  - Health and comfort of the animals

We made great steps ahead the last years!



# WHAT WILL THE COW OF THE FUTURE LOOK LIKE?



# 2030,2040,.....tools, opportunities,..

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- Dairy genomic selection and in vitro fertilization
  - Genetic improvement of health, welfare, feed efficiency and methane excretion.(DSM)
- Improved vaccines (Merck/GDF) e.g. vaccine against FM
- Regenerative medicine (stem cell-based) technology development!
- Microbiome; healthier cows and Epigenetics; you can “turn off” or “turn on” good/bad genes
- Digestive aids and feed additives; DSM 3-NOP→40% methane reduction



# 2030,2040,.....tools, opportunities,..

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- Enhanced animal care:
  - Polled gene, no hormones, no antibiotics
  - Toys(brushes), outdoor/pasture, calf separation
- Enhanced environmental care:
  - Zero carbon footprint, specially fertilizers, minimum emissions
- Enhanced farming practices:
  - Big data, precision farming, no herbicides and pesticides
- Robotics, sensors, automation



# Further cooperation Russian dairy industry, DairyNews and Global Dairy Farmers

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- Welcome
- Unique network of leading dairy farmers and leading business partners
- Exchange knowledge and ideas, support each other
- We are all in the same business and we share the passion of this great business





# Conclusions

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- As dairy farmer strive to the highest standards, everyone has to participate. Employees, dairy industry, clients, consumers,....
- We have to move out of the old, we have to listen to the consumer
- Milking, feeding, breeding is no longer enough to be a dairy producer today.
- Management has to always adapt and change, so be open minded.



# Conclusions/Take home messages

- Be aware of consumers trends, more consumers approach
- Added value and sustainability is the future
- Different chains on farm level
- Innovations; products, way of producend
- Invest in marketing
- Communication, transperency, trust

Furthermore, actors at all stages of the value chain will need to work hard to maintain the trust of a more demanding and empowered consumer



# Thank you very much for your attention



Sky is the limit with Global Dairy Farmers!

[More information](#)

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Website: [www.globaldairyfarmers.com](http://www.globaldairyfarmers.com)