

# Reformulation in the Dairy Sector

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## Agenda

➡ Part I – The Dairy Story from an European Perspective

➡ Part II – Reformulation in Dairy

- Fat
- Salt
- Sugar

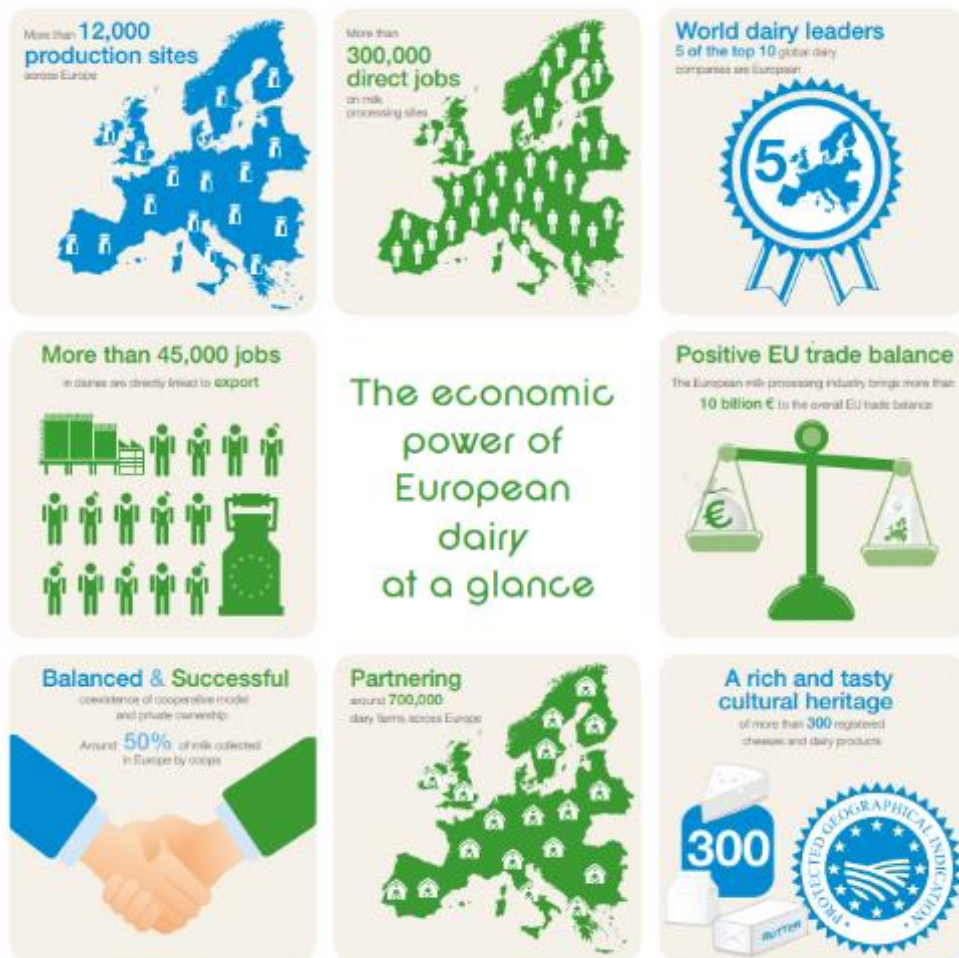
➡ Part III – Consumer Perception

➡ Part IV – Final Remarks



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# Part I - The Dairy Story from an European Perspective



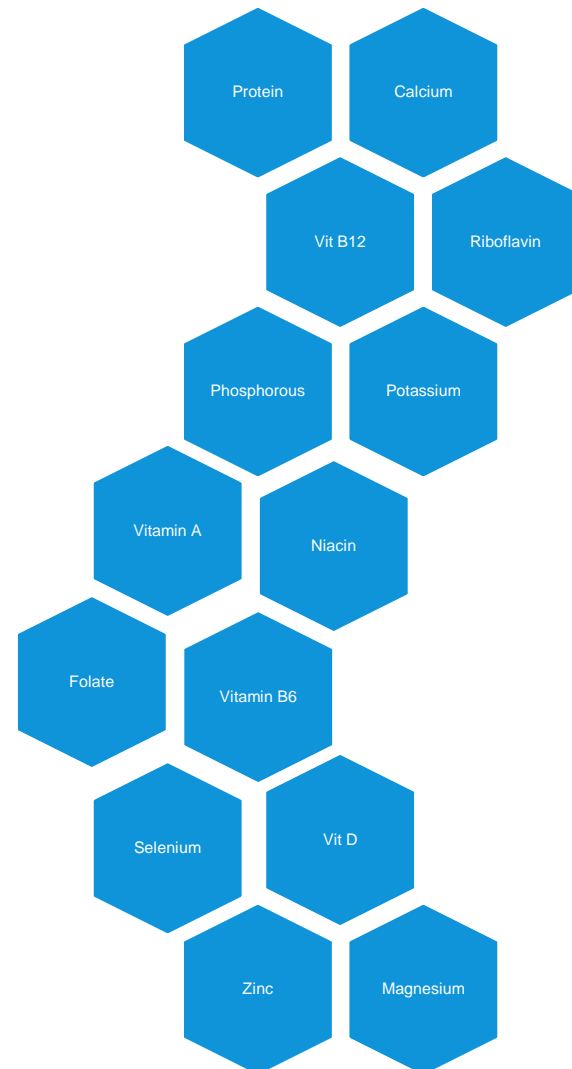
## The Economic Power of Dairy

Source: EDA Economic Report 2017

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## Why is dairy important in the daily diet?

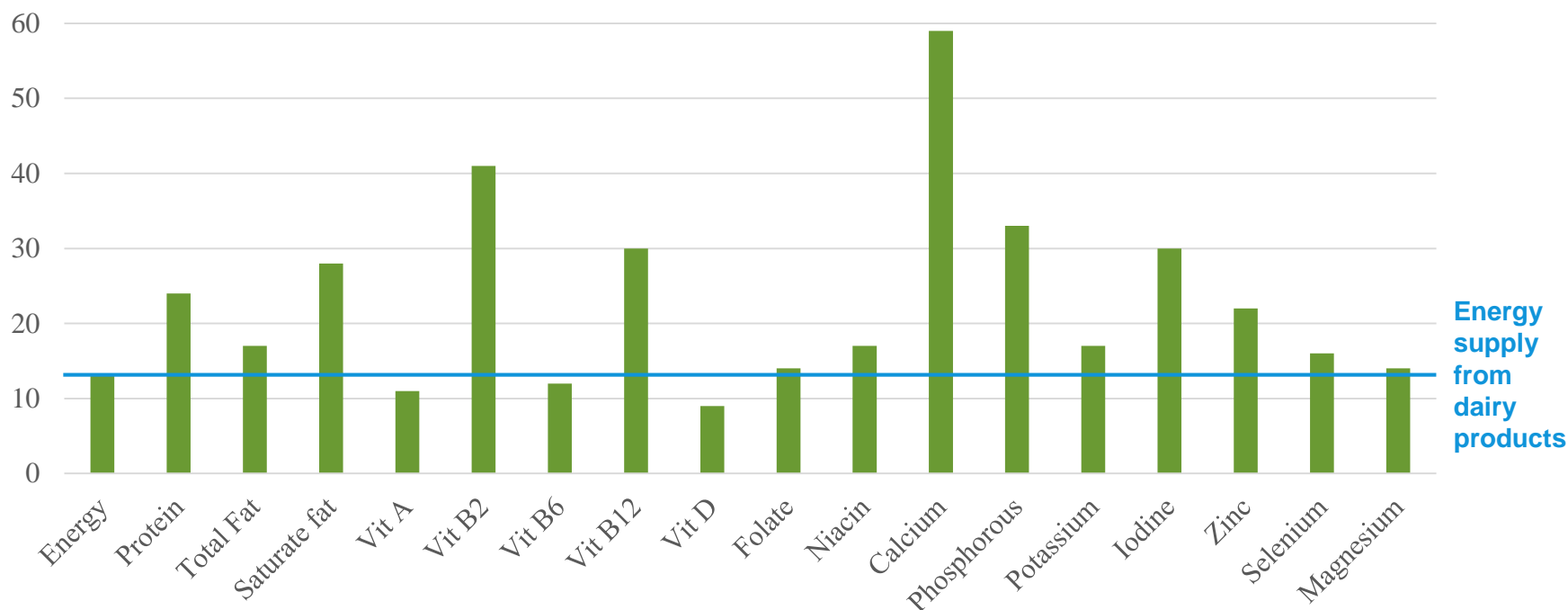
➡ Milk, yoghurt, cheese, etc. are naturally rich sources of a wide range of essential nutrients with low energetic intake



## Why is dairy important in the daily diet?

➔ Milk and milk products provide a large contribution to nutrient intake

Dairy Contribution to Diet Quality in Europe (%)



Source: Danskernes Kostvaner 2011–2013

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## Why is dairy important in the daily diet?

- ➔ All existing national dietary guideline in Europe recommend consumption of 2-5 portions of milk and dairy products every day



### TOITU MITMEKESISELT:

- ✓ Söö iga päev midagi viiest põhitoitainegrupist!
- ✓ Varieeri toite toidugruppide sees!

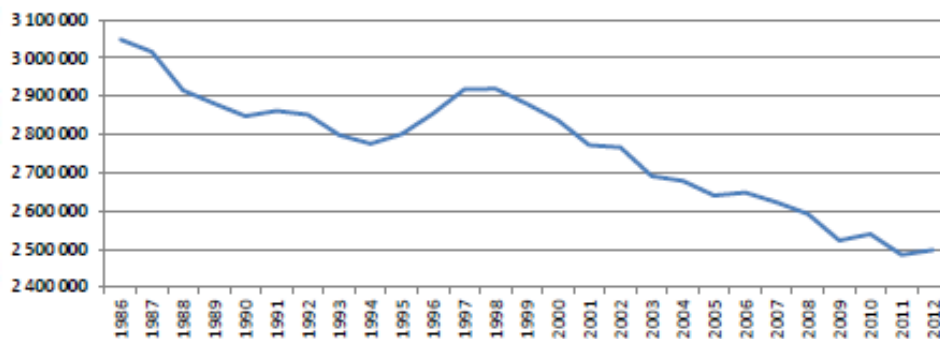
### PEA MEELES!



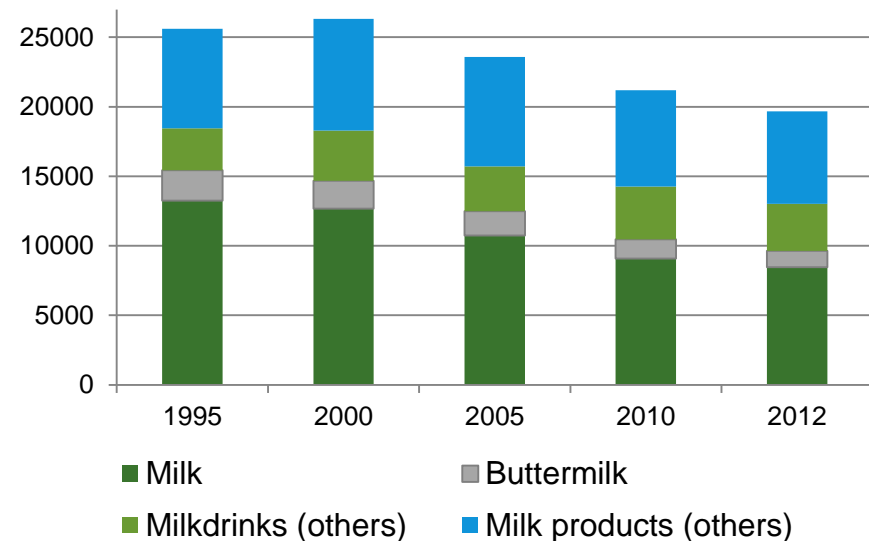
## Milk consumption in the EU

➔ Milk consumption is steadily declining, children included

**Lait liquide : les achats ménages**



**Example NL: Purchased volume per 100 households** Source: GfK Consuscan



Source :   KANTAR ULTRA

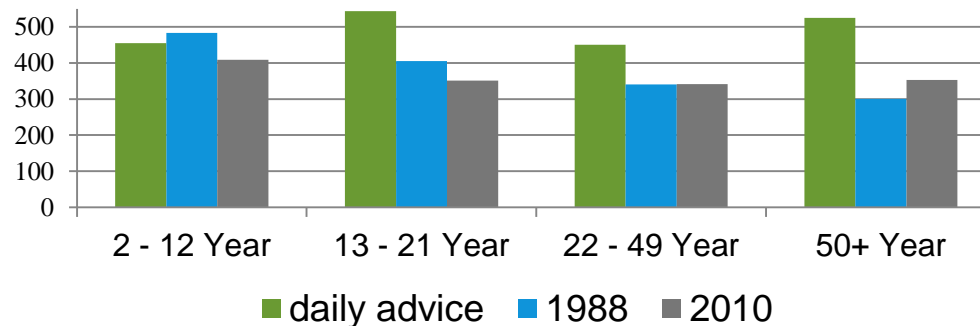


## Dietary Recommendations

➔ Many people in Europe do not comply with dietary recommendations and guidelines for dairy intake

### PER CAPITA CONSUMPTION MILK & MILKPRODUCTS

Source: VCP in g/day



**Declining milk consumption associated with micronutrient intake inadequacies**

## Part II - Reformulation

## Broad Range of Dairy Products

- ➔ Broad range is available in the market: fat, semi/low fat and zero fat;
- ➔ European Legislation defines the level of fat in milk and butter (Reg. 1308/2013);
- ➔ Milk with different fat levels has existed for decades – whole, semi-skimmed and skimmed milks defined in EU law since 1971;
- ➔ European consumers can compose a healthy and balanced diet, including dairy products, according to their individual needs.



**Continuous product development  
based on consumer needs and science**

## Reformulation in the EU

Focus on	Number of countries with reformulation initiatives
Salt	23
Trans fat	20
Total fat	20
Saturated fat	18
Added sugar	20
Total sugar	15
Energy intake	13
Portion sizes	8
Wholegrain	9

Source: Trio Questionnaire 2016

## Nutrients discussed in Reformulation

### ➡ **Fat: saturated and trans fat** – naturally present

- Fatty acid composition of milk fat:
  - 65-70% saturated fat;
  - 30-35% unsaturated fat;
  - 3-4% trans fat.

### ➡ **Sodium:** naturally present and added as NaCl in cheese production

### ➡ **Sugar:** naturally present lactose and galactose; sucrose added to dairy drinks and desserts

## Saturated fat

➔ Associated with increased LDL cholesterol and CVD risk

➔ Recent studies (meta-analysis):

- Low-fat dairy, fermented milk and cheese → reduced risk of CVD, stroke, coronary heart disease;
- High-fat dairy, non-fermented milk, butter, cream → no association with stroke risk

**Dairy consumption and risk of cardiovascular disease:  
an updated meta-analysis of prospective cohort studies**

Li-Qiang Qin PhD<sup>1</sup>, Ji  
You-You Zhao PhD<sup>1</sup>,

REVIEWS | 18 MARCH 2014

**Association of Dietary, Circulating, and Supplement Fatty Acids With  
Coronary Risk: A Systematic Review and Meta-analysis**

Rajiv Chowdhury, MD, PhD; Sama  
Laura Johnson, PhD; Oscar H. Fray  
Kay-Tee Khaw, FMedSci; Dariush

META-ANALYSIS

**Dairy foods and risk of stroke: A meta-analysis of prospective cohort  
studies**

D. Hu <sup>a</sup>, J. Huang <sup>a</sup>, Y. Wang <sup>b</sup>, D. Zhang <sup>c</sup>, Y. Qu <sup>a,\*</sup>

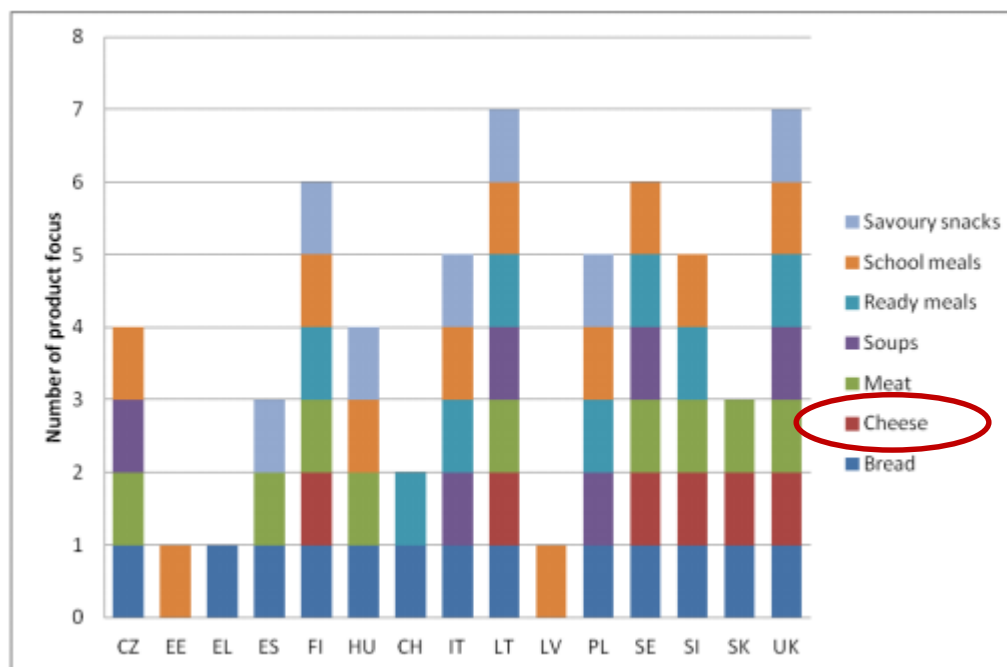


**Dairy MATRIX is more than saturated fat**

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## Salt – added in cheese making

- ➔ Higher intake of dairy decreases blood pressure;
- ➔ Activities going on to reduce salt in cheese going on in several MS;
- ➔ Minimum salt level needed, reduction is sometimes not possible.



## Role of salt in cheese

- ➔ Aroma and taste (not only the salty taste but its typical cheese taste)
- ➔ Preservation/conservation
  - Inhibits growth activity of pathogens and spoilage organisms;
  - Retards the activity of starter bacteria.
- ➔ Processes and texture
  - Provides firm texture, needed for slicing, grating and industrial processing;
  - Controls protein breakdown (important for flavour and texture development).



**Major salt reduction changes products' characteristics**



## Sugars in Dairy

- ➔ High intakes of sugars in the form of sugars sweetened beverages may contribute to weight gain (EFSA, WHO);
- ➔ Dairy – low contributor to added sugar intakes in Europe and high contributor of essential nutrients
  - 11-12% added sugar intake from dairy in UK and NL in children;
  - 45-59% of calcium intake from dairy in children.



**Adding sugars to dairy increases palatability and helps reach recommendations**

## Sugar Reformulation in Dairy

- ➔ Under the definition for 'free sugars', lactose naturally present in milk and milk products and sugars contained within the cellular structure of foods is excluded (**SACN Report, 2015**);
- ➔ There is no evidence that lactose in milk and milk products have adverse effects on health (**COMA Panel, 1991**);
- ➔ Because there is no reported evidence of adverse effects of consumption of intrinsic sugars and sugars naturally present in milk, the recommendations of this guideline focus on the effect of free sugars intake (**WHO, 2015**).

## Flavoured dairy products are nutrient-rich foods

- ➔ 15% recommended daily protein
- ➔ 31% recommended daily calcium
- ➔ 25% recommended daily riboflavin
- ➔ 8% recommended daily vitamin B12
- ➔ 10% recommended daily vitamin B5
- ➔ 30% recommended daily phosphorus
- ➔ 17% recommended daily potassium



200ml of flavoured milk

## Flavoured dairy products are nutrient-rich foods

- ➡ 13% recommended daily protein
- ➡ 26% recommended daily calcium
- ➡ 16% recommended daily thiamine
- ➡ 23% recommended daily riboflavin
- ➡ 18% recommended daily vitamin B12
- ➡ 48% recommended daily iodine
- ➡ 26% recommended daily phosphorus
- ➡ 15% recommended daily potassium



**150g of fruit yoghurt**

## Part III – Consumer Perception

## Consumer Perception

### → Figures

- Cheese and dairy fat sales volumes are low and continue to decline. In 2012 :
  - “Light” cheeses = 2,6 % only of the cheese category (sales decrease : -5,6%)
  - “reduced fat” dairy fat sales : -19% between 2010 and 2012
- “Light” fresh dairy product sector is very dynamic in terms of innovation, but sales are decreasing.
  - 15% of the yoghurt & FM category in terms of sales volumes in 2014
  - But : sales are decreasing for many years (-14% in 2014 vs 2012 )



# Consumer Perception

## ➡ Perception

- Ready to opt for “low/reduced fat” version of foods when it comes to complex products (e.g. ready meals) but are reluctant for traditional products such as cheese;
- Lowering the content of fat/sodium/sugars sometimes requires the use of other ingredients and additives (for texture) and flavors → may not correspond to the expectations of some consumers;
- Often a negative connotation of the “light”: associated with more water and less high quality ingredient for a higher price;
- Prefers to reduce the frequency of consumption/portions instead of switching to “light” dairy products → also often the advice of nutritionists.

**Reformulation of dairy may not be the solution to improve consumer diets**

## Part IV – Final Remarks



## Activities EDA Members

- ➡ Actions in some MS to reduce sugars in dairy drinks/desserts – NL, UK, BE;
- ➡ Actions from several companies to limit/reduce added sugar (continuous reformulation, Danone nutrition guidelines, Nestlé added sugar reduction commitment, etc.)

**Sugars in dairy are not a key public health issue. However, some actions can be taken**



# NUTRITION AGREEMENTS ON SALT AND SUGAR

One of the United Nations' sustainable development goals for 2016–2030 good health and wellbeing.

Valio is participating in Finland's national Nutrition Agreement with three commitments: we help people to reduce their sugar and salt intake, and make it easier to choose low-salt recipes.



## 1. LESS SALT WITH MILK MINERALS (VALIO VALSA®)

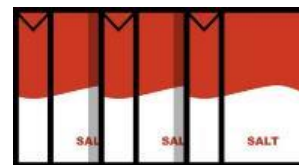


# OUR 1<sup>st</sup> AGREEMENT

In 2020 we will produce 7 million kilograms of Valio Valsa® products (compared to 0 kg in 2015).

This means that Finnish households can save 38,000 kilograms of table salt (containing sodium).

## REDUCTION OF SALT USE



=



**38,000** KG  
TABLE SALT

**6<sup>M</sup>**  
TEASPOONS

### 3. LESS SUGAR IN OUR SNACK PRODUCTS

## OUR 3<sup>rd</sup> AGREEMENT

We will double the number of less-sugar-containing snacks – natural, unflavoured, sugar-free and 20–50% less-sugar-containing snack products – from 2015 to 2020.



**YEAR 2015**  
**84 ITEMS**



**YEAR 2020**  
**168 ITEMS**

## EDA Position

- ➔ EDA members already offering a broad range of products adapted to the consumer demands and needs and are constantly working on providing a diverse range of products, including innovative products, in order to contribute to the health of consumers.
- ➔ Education and promotion of a healthy diet and lifestyle is important in changing consumer behavior. To achieve a balanced diet and physical activity.
- ➔ Take positive approach: what CAN we eat instead of what is bad for us.
- ➔ Foods should be enjoyable!!



## Conclusion

### ➔ Reformulation should take into account:

- Characteristics of the whole product and its contribution to a healthy diet instead of individual nutrients;
- Regulatory aspect;
- National specificities.



**Target-based reformulation approach is not appropriate**



## Conclusion

- ➔ Dairy has an important role in a healthy diet, providing easy and low-cost access to many essential nutrients;
- ➔ Reformulation is not the holy grail, an all-inclusive approach is important;
  - Reformulation does not solve the problem of unhealthy diets and is not feasible/workable in every country and for every product;
  - It's the dairy matrix what determines the effect on health, not the individual nutrients.
- ➔ Education and promotion of a healthy diet and lifestyle is important in changing consumer behaviour.

