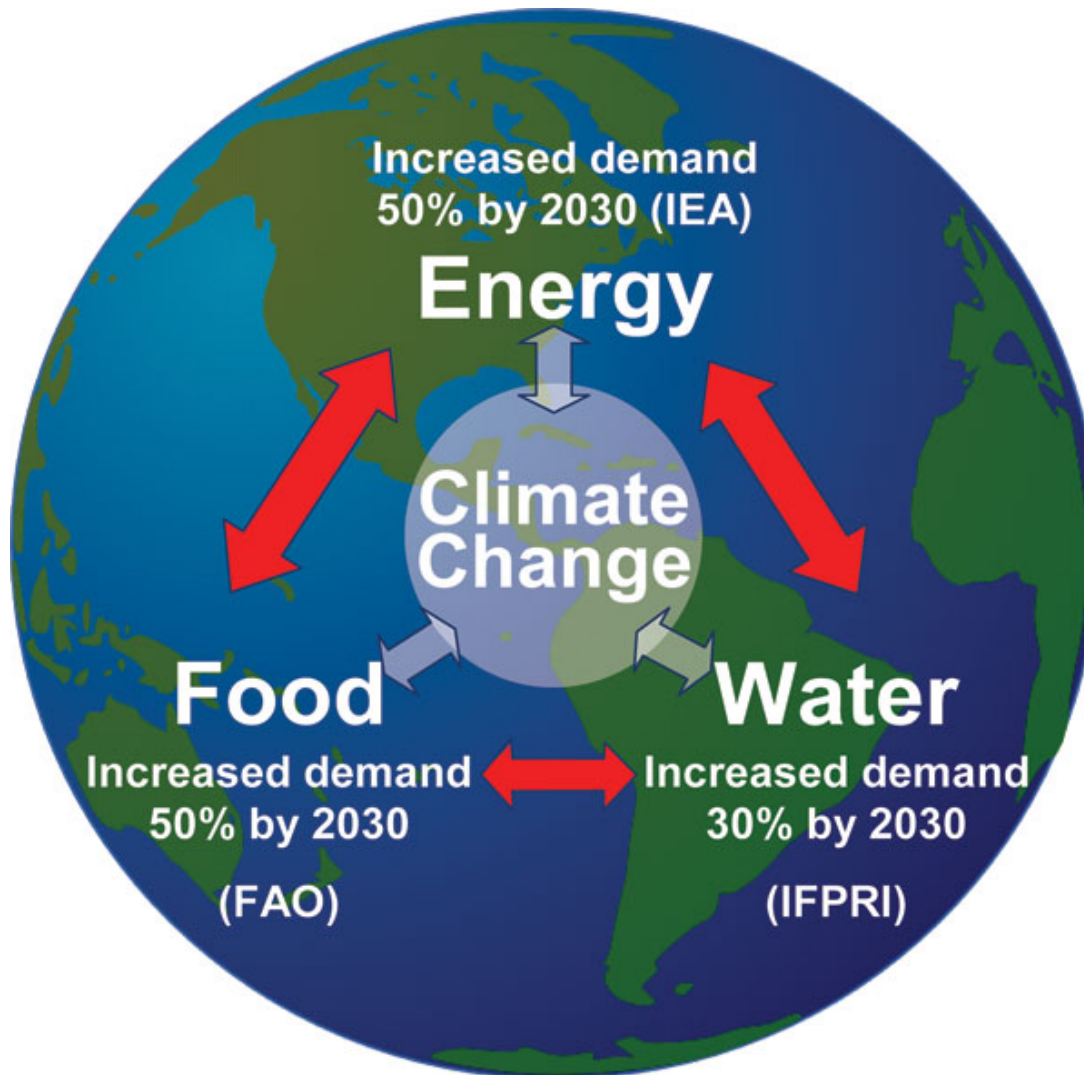




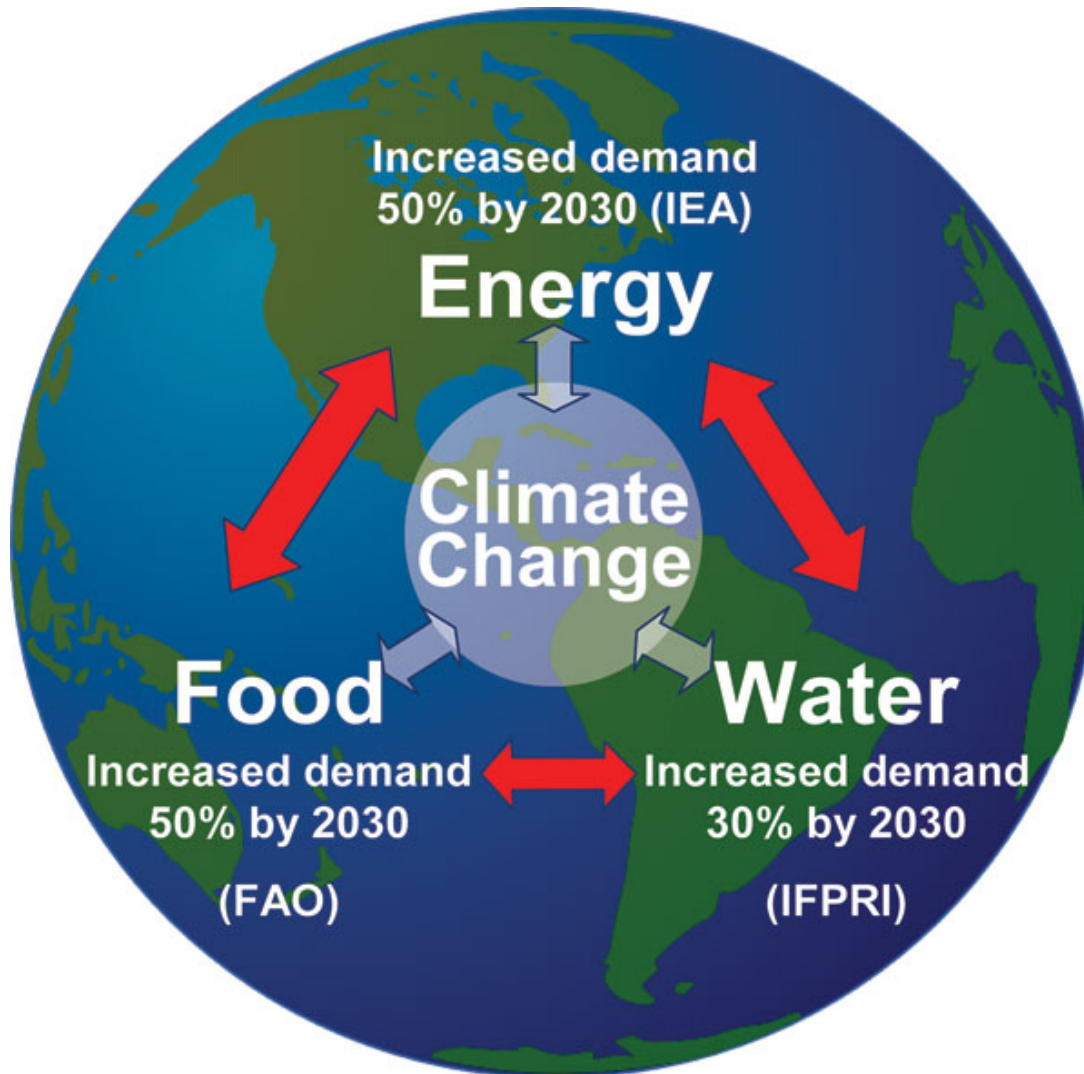
The circle economy in dairy farming & dairy processing NL



Getting caught in the triangle of global constraints



Getting caught in the triangle of global constraints



Worldwide, 750-900 million people are dependent on dairy farming (FAO)

UN Food & Agriculture Organisation (FAO)
Int Energy Agency (IEA)
Int Food Policy Research Institute (IFPRI)

Circle Economy and the change in the dairy supply chain



**SUBMIT
PROOF
POINTS**

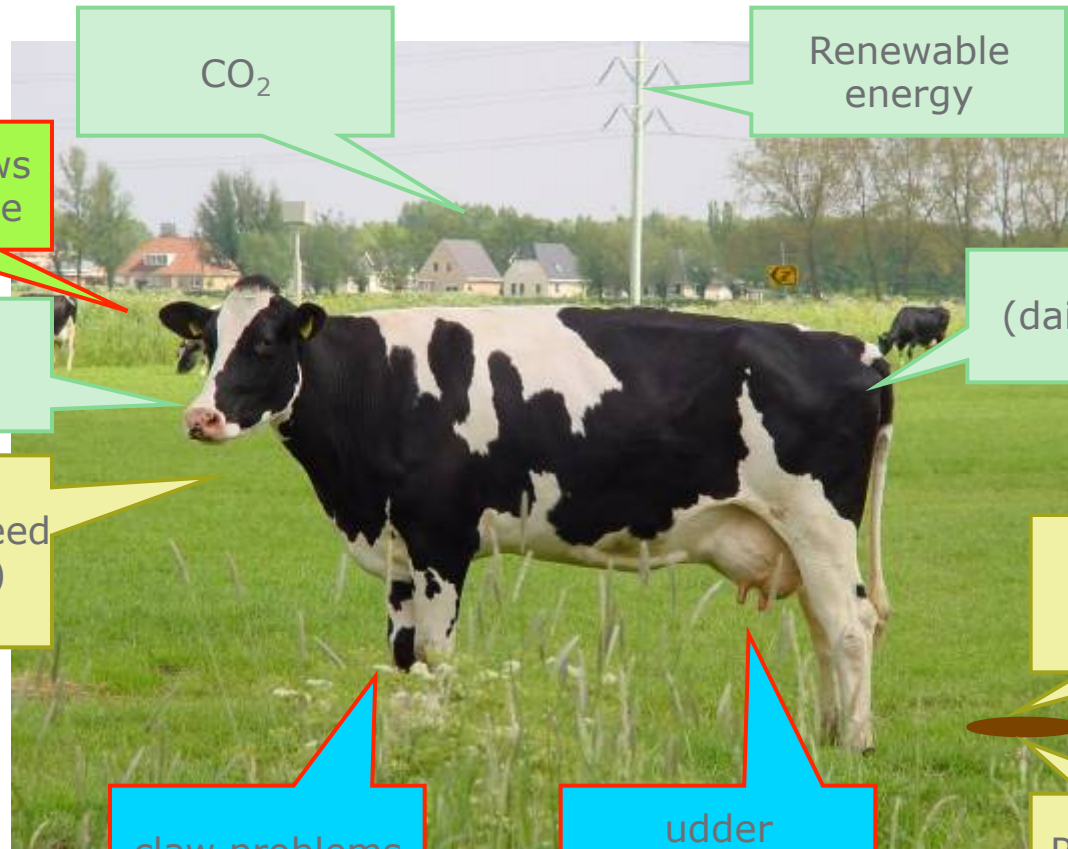
- Land use for dairy & water availability in Netherlands
- Animal feed sources & feed conversion
- Re-use of minerals (phosphates)
- Manure processing to produce renewable energy & fuel

Our member farmers from the cooperative



- The company is owned by *Zuivelcoöperatie* FrieslandCampina, which has 14,400 member dairy farms in the Netherlands, Germany and Belgium.
- Member farmers are the owners of the company AND suppliers of milk. For more than 140 years now. From one generation to the other.
- FrieslandCampina serves approx. 1 bn consumers daily in 100 countries around the world. Annual sales >EUR 10 bn

Key sustainability issues at the farm



CO₂

Renewable
energy

>20% of cows
never outside

Methane

Methane
(dairy: 4% global
warming)

Sustainable feed
(soy usage)





Ammonia

claw problems

udder
problems

Phosphate and
Nitrogen

Impact on
water quality

-  Energy and climate
-  Cow is key
-  Biodiversity
-  Outdoor grazing

The most pressing sustainability issue on the dairy farm are:
1) green house gas emissions 2) animal welfare 3) sustainable
soy, 4) mineral balance (manure) 5) ammonia

- Fundamental global need for healthy foods
- Milk is one of the most nutrient-rich foods
- As one of the leading multinational dairy businesses, we aim to contribute to sustainable farming and processing
- We want to show leadership in the field of Corporate Social Responsibility:

Health & nutrition

Tackling nutrient deficiency & obesity



Sustainable dairy chain

More efficient use of natural resources



Dairy development

Asia, Africa

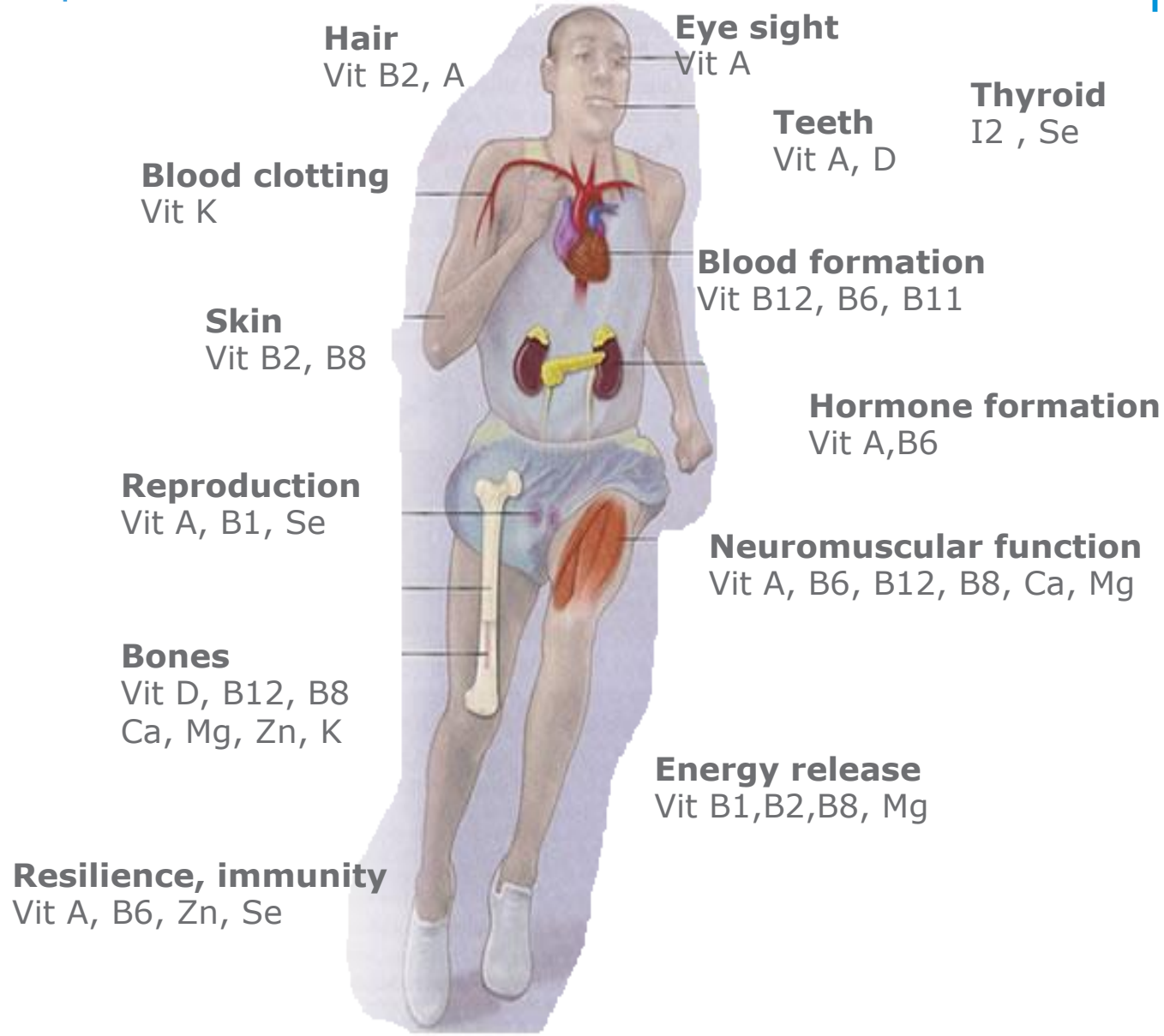


Responsible dairy farming

Sets the standard



Key functions of micronutrients in milk




Key elements of the sustainability policy of FrieslandCampina, *theme responsible dairy farming*

There is a fundamental need in the world for nutritious foods. Dairy is one of the most nutrient-dense foods. As an international dairy leader we aspire to demonstrate our commitment to responsible production and leadership in the CSR domain by providing:

Health & Nutrition

Combating nutrient deficiency & obesity


company



Sustainable Value Chains

Improving resource utilisation

company



Dairy Development

Helping small farmers
Asia, W-Africa

company



Responsible Dairy Farming

Setting the standard

cooperative



4 pillars of the sustainable dairy farming approach

1. Energy and climate

Excluding offset

Reduction of GHG with 30% between 1990 and 2020

2% energy reduction per year

2. Animal health and -wellness

Reduction antibiotics

Mastitis/claw problems: back to naturally occurring levels

3. Biodiversity

Visible care for nature

Responsible soy from 2015

Improved mineral balance



4. Outdoor grazing: at actual level

A remarkable transition..



Proteins
Minerals
Vitamins
Milk fat
Bio-actives



Cows produce - very efficiently - highly nutritious foods
from plant material
that is **not digestable** by humans

A remarkable transition..

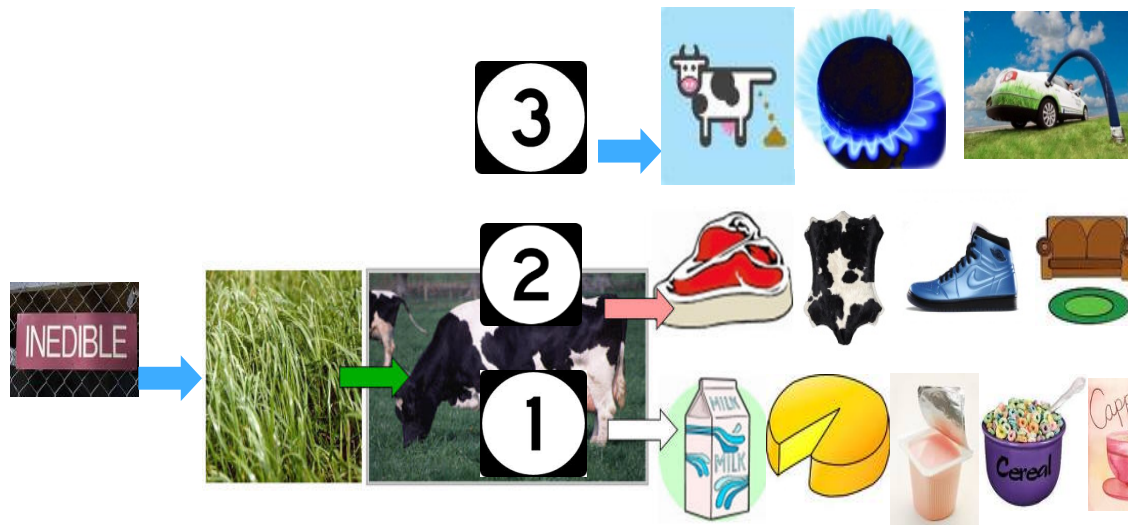


Proteins
Minerals
Vitamins
Milk fat
Bio-actives

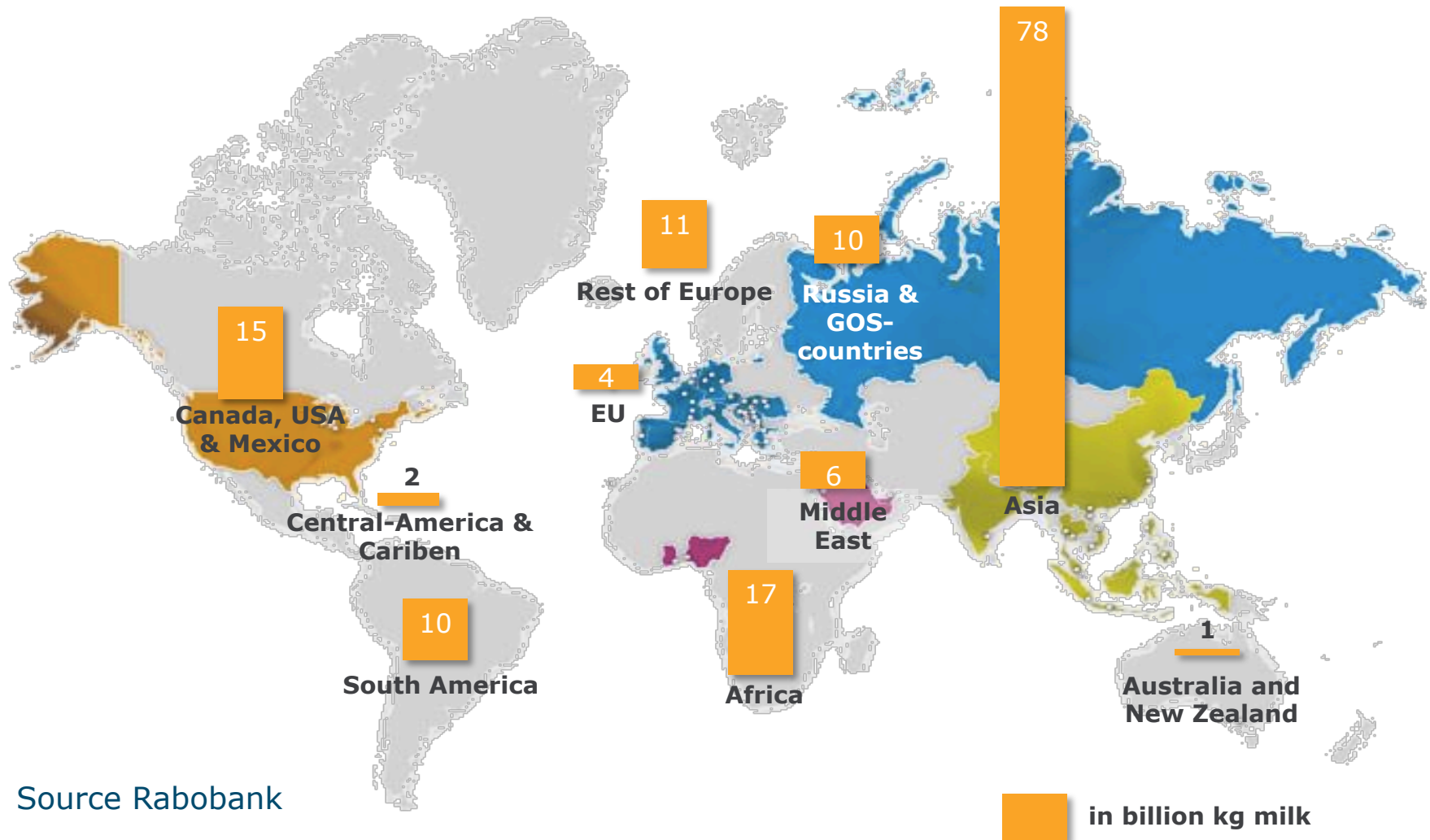


Feed stock: approx. 40% grass; 30% maize; 30% concentrates (“krachtvoer”) from recycled residue from food industry (soy crushing; breweries, potato industry, sugar beet leaf, citrus juice producers, etc.)

Are we moving into the next phase of added value creation by dairy cows?



Growth dairy demand 2010–2020 and the Royal FrieslandCampina countries



Source Rabobank



Our combined CSR promises:

Greening Our Farming



Cleaning Our Processing



**“Bringing Essential Nutrients from
Natural Dairy to People
Everywhere”**



*Supporting 40,000 Small Dairy Farmers
Asia & Africa*



The FrieslandCampina CSR policy



Our CSR Mission: *There is a fundamental need in the world for nutritious foods. Dairy is one of the most nutrient-dense food stuffs. As an international dairy leader we aspire to demonstrate our commitment to responsible production and leadership in the CSR domain by providing:*

Health & Nutrition

Combating nutrient deficiency & obesity



Sustainable Value Chains

Improving resource utilisation



Dairy Development

Helping 40,000 small farmers Asia, W-Africa



Responsible Dairy Farming

Setting the standard



Reduce sugar, salt and fats in our products. Set company standard on labelling

Energy, water, waste in our supply chain reduced by 20%

Productivity per cow in SE Asia, Nigeria raised by 50% (compared with 2011)

30% reduction in greenhouse gas (1990 comparison)

Combat under-nutrition in strategic partnership with Red Cross (relief aid)

Climate neutral growth and 100% use of renewable energy in our supply chain

To align small farmers with our company's global quality standard Fokus

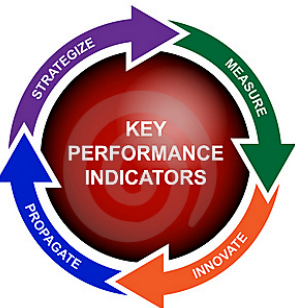
Outdoor grazing maintained at 75-80% participation of our dairy farms

1 mln children p.a. reached effectively with healthy eating/living education

Soy, palm, cocoa, other agricultural commodities sustainably sourced

To raise annual farmer income well above UN defined poverty line

Improve overall performance in animal health & welfare on farms



The ultimate goal...

- Green energy from the farm
- Manure as source of energy
- To power processing plants
- And provide green gas as fuel
- Zero water dairy factories (re-use water from milk)
- Contributing to global food (nutrient) security

