

THE POWER OF DAIRY

READY FOR TOMORROW'S CHALLENGES

A REPORT ON THE SOCIAL AND ECONOMIC
ASPECTS OF THE DAIRY SECTOR IN THE NETHERLANDS

AN INVALUABLE RESOURCE

The power of dairy is a report on the economic and social relevance of the dairy sector. It contains the following four key messages:

1 The Dutch dairy sector: of great importance to the Dutch economy

Last year, the production value of the dairy industry amounted to 6.6 billion euros. As the most active EU member state on the global market, The Netherlands claims a share of almost 5% of global dairy trade. With 45,000 direct full-time positions, the sector is an important provider of employment. A favourable climate, strategic location within Europe, excellent logistics infrastructure and growing international demand ensures the Dutch dairy sector will keep growing and remain a powerful sector.

2 The Dutch dairy sector: increasingly sustainable

In many of the markets in which we operate increasing importance is being attached to animal welfare and climate change. The Dutch dairy sector is aware of its impact in these areas and has set goals for climate-neutral development, continuous improvement of animal health and welfare, preservation of outdoor grazing, bio diversity and the environment. Where necessary, we collaborate with other parties throughout the production chain.

3 The Dutch dairy sector: contributing to global food security

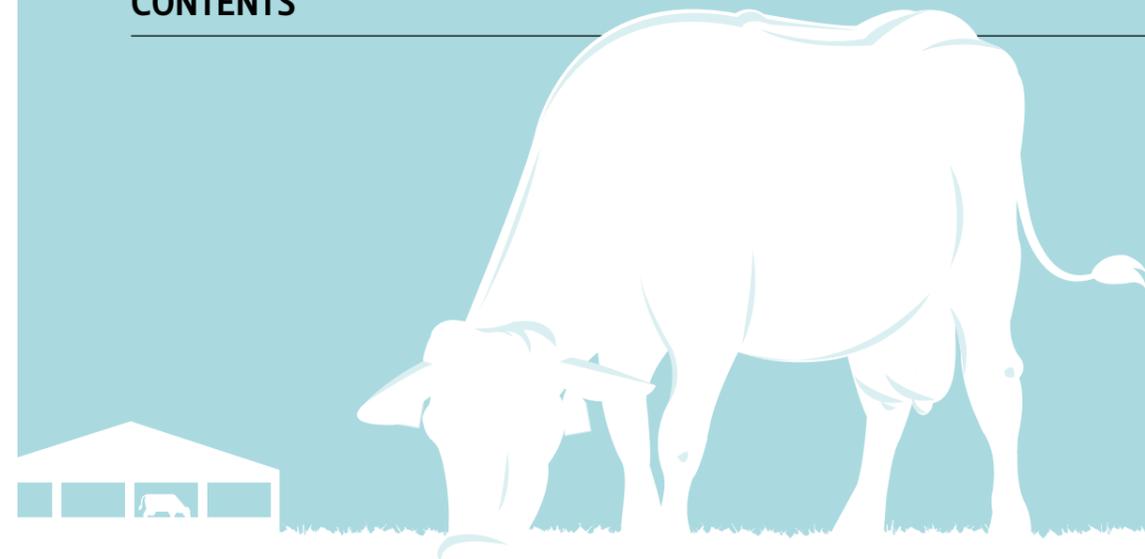
Rapid population growth and increasing scarcity of commodities pose a threat to global food security. The world faces the

challenge of feeding its growing population with food that is healthy and sustainably produced. Dairy is essential to this development. The dairy sector in the Netherlands, with its ideal climate, can contribute through ongoing responsible growth.

4 The Dutch dairy sector: world leader in innovation

High-quality products have resulted in an excellent worldwide reputation for the Dutch dairy sector. Decades of collaboration between scientists, dairy farmers, private enterprise and the government have made the Dutch dairy industry a world leader in innovation and knowledge development. By exporting knowledge, technology and design concepts the sector contributes to more efficient and sustainable food production worldwide. 🐄

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Franc van den Berg
Partner in EY Climate Change and Sustainability Services

OUR CO₂-EMISSIONS ARE **HALF** THOSE OF OTHER REGIONS

Franc van den Berg: The Netherlands is renowned for hydraulic engineering and flowers, but also for dairy produce. The Dutch dairy sector, respected for its focus on quality, health and the environment, leads the way in efficient and sustainable technology. CO₂ emissions per litre of milk are half those of other global regions and our progressive outlook extends to using soya as dairy feed. Since 2015, responsible use of soya has been one of the supply conditions of dairy businesses.



Roelof Joosten
Chairman Dutch Dairy Association (NZO)

However, the Dutch dairy sector needs to become even more sustainable. Big steps are to be taken with regard to increasingly important issues such as climate change and biodiversity. The sector is fully committed to strengthening its leading position in the world. Sustainable production and economic growth are increasingly seen as mutually reinforcing areas, not only vital to our planet's future, but also essential to feeding a growing world population.

Different economic sectors can contribute to a better world within the framework outlined by the United Nations Sustainable Development Goals (SDG). The Dutch dairy sector plays an important role in SDG's particularly with regard to issues such as food security, health, a living wage within the sector and climate change.

In this publication, you can find out more about the way in which the sector is pursuing these issues. I am proud to see the dairy sector breathing new life into the three 'sustainability Ps'; People, Planet and Profit. 🐄

WE ALL PLACE **CONSUMER INTERESTS** FIRST

Roelof Joosten: Economically, the Dutch dairy sector is very strong. It is an important contributor to Dutch business. Dairy farming and the dairy industry jointly account for tens of thousands of jobs and billions of euros in sales. The solid dairy sector is deeply rooted in Dutch society. Entrepreneurial livestock farmers pass their heir farms from generation to generation. They are the cornerstone of the dairy sector.

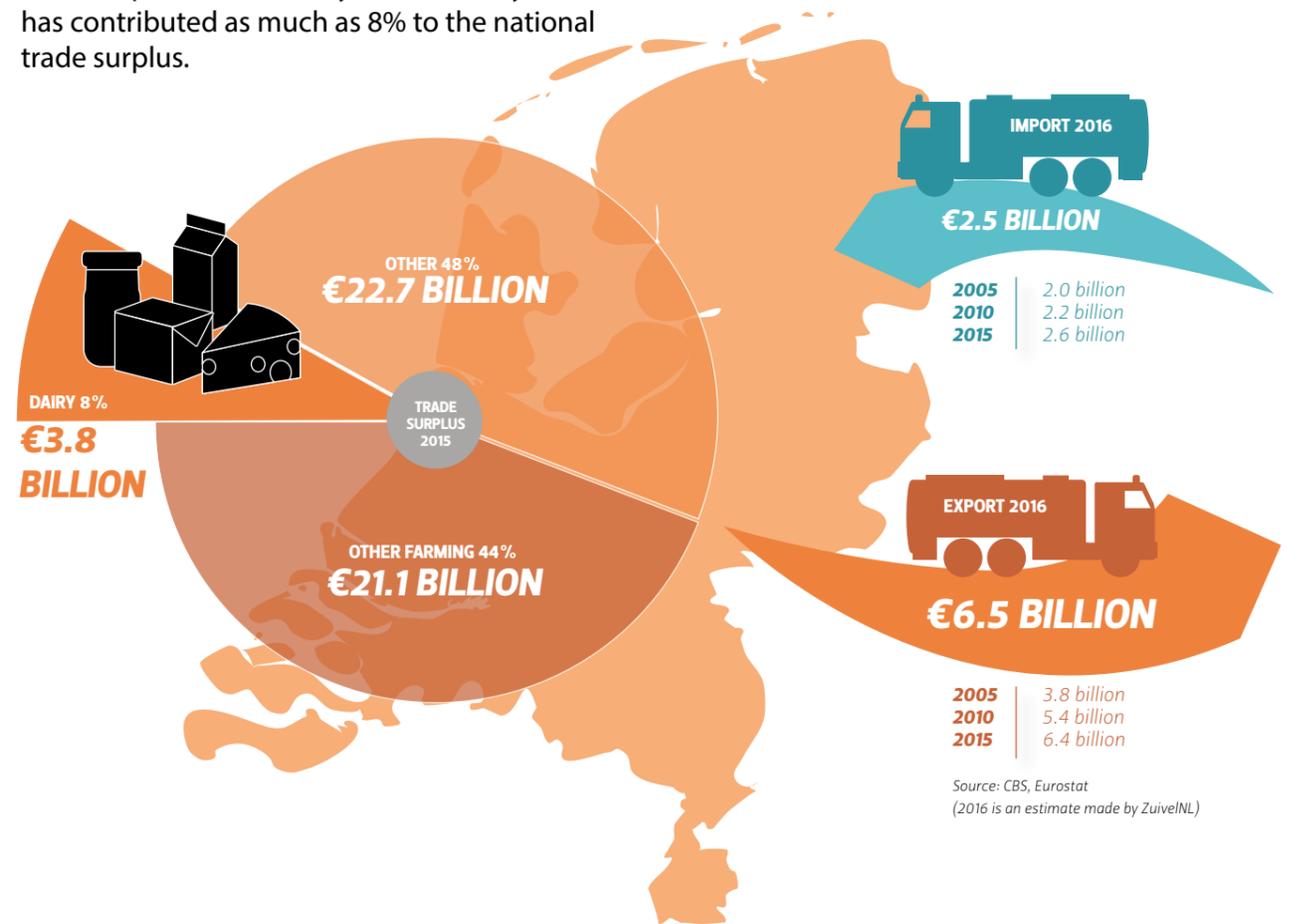
The leading position of our dairy sector is supported by our country's favourable climate, strategic location and skilled workforce. In recent years, significant investments have been made in processing capacity. Knowledge of efficient and sustainable dairy production is helping meet global demand for high-quality, premium products, which are staples of a healthy and sustainable diet.

A rapidly growing global population and increasing commodities scarcity is a challenge to guaranteed food security. Dutch dairy is part of the solution. Of course, we are fully aware that the reputation Dutch dairy universally enjoys, sets the bar high. We make sure to produce in accordance with European regulations and take good care of livestock and the environment.

Geopolitical developments are presenting further challenges. Dutch dairy has a strong focus on export, yet even within the EU, the playing field isn't always level. The robust Dutch production chain, however, can respond appropriately to external developments. And all parties in the Dutch dairy chain place the interests of consumers first. 🐄

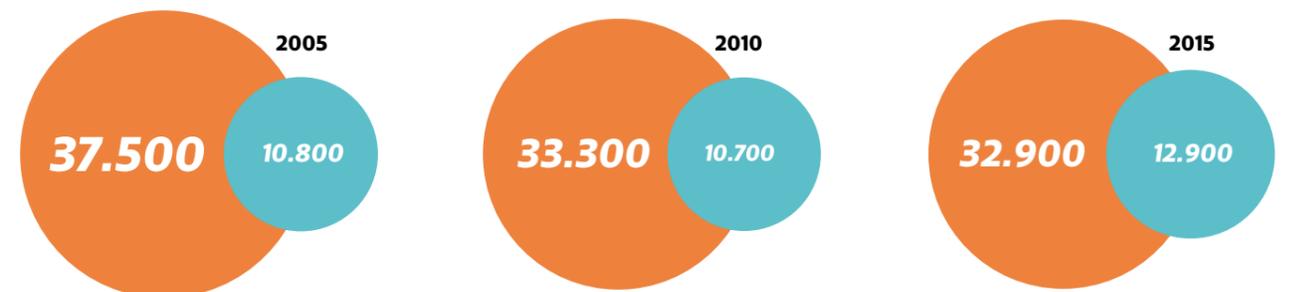
MAKING A TINY COUNTRY GREAT

The Netherlands has one of the world's largest trade surpluses. In recent years, the dairy sector has contributed as much as 8% to the national trade surplus.



EMPLOYMENT number of full-time jobs

- dairy farms
- dairy industry



THE NETHERLANDS: INTERNATIONAL DAIRY POWERHOUSE

The Netherlands is well known for its dairy produce. Butter, cheese and milk are staples of our diet. Our dairy is not only sought after in The Netherlands, there is also great demand for Dutch dairy products abroad.

The Netherlands is renowned for its dairy produce and related symbols, such as the milkmaid in her traditional costume. Our dairy sector's high-quality products, knowledge and craftsmanship command a strong international position. The country is eminently suited to dairy production. The climate and soil are ideal for breeding dairy cattle and growing grass and we are strategically located within Europe, which means excellent market opportunities and logistics infrastructure. Dutch dairy has everything to remain a powerful, growing sector.

Businesses within the sector

From an organizational point of view, the Dutch dairy industry is extremely diverse, incorporating cooperatives, family businesses and private operations. Dairy farmers are closely affiliated with the cooperatives: not only do they supply milk; they also provide capital, allowing these businesses to operate. Selling milk to a business they indirectly own provides farmers with the certainty of getting maximum value out of their milk and their investment.

In the Netherlands, a total of 17,890¹ dairy farms produce for dairy plants that supply other businesses with ingredients or make

products for consumption. Production value in 2016 amounted to 4.3 billion euros for dairy farming and 6.6 billion euros for the dairy industry².

The Netherlands is a highly attractive business location for foreign organisations thanks to the excellent dairy production climate, optimal logistics and outstanding knowledge of dairy.

The dairy sector is part of a larger dairy cluster, which includes key parties such as COKZ (The Netherlands' Controlling Authority for Milk and Milk products) and Qlip (Quality Laboratory Inspections and Process Certification). Institutions such as Veterinary Health Service, Wageningen University Livestock Research and NIZO laboratory and food research (food technology R&D centre) add considerable value for research in the food and dairy sector. Breeding farms, financial service providers, wholesale businesses and animal feed companies also contribute to a strong cluster, which holds a unique position and plays a leading role on the global market.

The importance of the sector

Besides the fact that the Dutch dairy sector is important for Dutch taste, culture and landscape, it is also vital to the economy. We are a significant player on the dairy world

market. The dairy market, contributing as much as 8%³ to the Dutch trade surplus in recent years. Our country is the most active EU member state in the world dairy market, with a share of nearly 5%⁴ of the global dairy trade volume. In this respect, dairy is one of the five main agricultural exports⁵. Some 65% of Dutch dairy is sold in the Netherlands and neighbouring countries, about 15% is sold in other EU countries and some 20% in countries outside the European Union. Partly thanks to its strong international position, the Dutch dairy sector contributes significantly to our country's employment and purchasing power. It provides 45,000⁶ direct full-time positions. Output is high: milk production per cow is amongst the highest in the world. The sector is geared towards efficient, animal-friendly production and preservation of outdoor

grazing and biodiversity. The Dutch dairy sector also contributes to the economic success of other sectors. Pharmaceutical companies, for example, which process dairy ingredients in medicines, or the bread and confectionary producers which purchase milk, cream and butter. Transport also benefits from the dairy sector's growth, thanks to the steady flow of dairy produce making its way through the port of Rotterdam.

Developments within the sector

Over the past ten years, the Dutch dairy sector has held up well in spite of global trends, which affected dairy supply and demand. One important development has been the abolition of the milk quota in the European Union, resulting in strong growth in Dutch milk production as of April 1, 2015.



EXPORT
Some 65% of Dutch dairy is sold in the Netherlands and surrounding countries

EMPLOYMENT
The dairy sector accounts for 45,000 full-time positions

ACTIVE MEMBER STATE
The Netherlands is the most active EU member state on the global dairy market

EQUIPMENT/STABLES	BREEDING	KNOWLEDGE-BASED INSTITUTIONS	DAIRY FARMERS
DAIRY SECTOR			
ANIMAL FEED AND HEALTHCARE	WHOLESALE, RETAIL AND CATERING	BUSINESS AND FINANCIAL SERVICES	

INFLUENTIAL & DUTCH



FALLING DEMAND

In 2015 and 2016 global demand for dairy remained low for several reasons, such as China's reduced willingness to buy dairy products and the Russian import ban

SATURATED MARKET

The European dairy market is saturated. However, there is still room for products with greater added value and opportunities to supply to higher market segments

Total production within the EU, however, hardly increased at all. Abolishing milk quotas has provided a big incentive for new investments in dairy farms and plants. These have focused on growing capacity through modernisation, expansion or new factories. At the same time, demand remained low throughout the second half of 2015 and the first half of 2016. Reasons for the low demand include: China's reduced willingness to buy dairy products is a result of lower economic growth and high levels of stock, and the Russian import ban (imposed August 2014). Due to low oil prices, the oil-producing countries tightly controlled their expenditure and imported less dairy products. The environment in which the dairy sector operates is moving and unlikely to stabilise in the coming years. Several important developments are explained below.

High-quality products and innovation

Supply of dairy to European markets is high, resulting in market saturation⁽⁷⁾. There is still room, however, for products with greater added value and opportunities to supply to higher market segments. For example: the industry might respond to changing consumer needs and changing household composition with its product offering. The dairy sector has effectively anticipated to this development through product innovation in packaging and portion sizes, amongst other things. In addition, alternative sales channels, such as out-of-home channels, are becoming increasingly important. The out-of-home channel is focusing on hospitality, catering and petrol stations, for example. Dairy products themselves are also continuously subject to innovation. As a result of innovation we are seeing a far more diverse offering of

dairy products. Low(er) fat products such as 20+ and 30+ cheese, are a prime example. Moreover, consumers are increasingly opting for yoghurt-based drinks and desserts alongside traditional dairy products such as (butter)milk and cheese⁽⁸⁾. Products with clear health benefits appeal to Dutch consumers' changing needs.

farmers also have difficulties in applying for financing when they are in a position to take over the business of their family. Young farmers see the financing of the transfer of the business as their greatest obstacle. Because businesses are larger than ever, young farmers require more capital. 🐄



DOWNSIZING

To ensure the quantity of phosphate doesn't exceed European standards, the dairy herd must be downsized

DEROGATION

Loss of the derogation could cost the Dutch dairy sector nearly 1 billion euros

FINANCING

Young farmers view financing the transfer of the business as their greatest obstacle

DESPITE MARKET SATURATION THERE IS STILL ROOM FOR PRODUCTS WITH GREATER **ADDED VALUE**

Phosphate rights and manure surplus

The Dutch House of Representatives adopted the "Phosphate rights dairy cattle Act" at the end of 2016. This stipulates that from 2018 on the quantity of phosphate produced by dairy farming in the Netherlands should remain below the European maximum. In order to meet this requirement, the Dutch dairy herd needs to decrease. If the Netherlands does not meet this requirement it will lose its special position with regards to European regulation.

Financing farming businesses

Financial institutions are important stakeholders for the dairy sector. Many dairy farmers are experiencing difficulties as a result of sustained pressure on pricing and the need to meet ever-stricter requirements in order to have access to funding. In addition, financial institutions are raising the bar when it comes to financing applications, while capital requirements within the agricultural sector are increasing. Not only has the credit market changed dramatically, the risk profile of agricultural businesses has changed too. Volatile prices in agricultural market increase financing risks for banks. These developments have resulted in complex issues. Young

DAIRY CONTRIBUTION TO THE DUTCH ECONOMY 2014



THE SUSTAINABLE DAIRY CHAIN

With a set of challenging goals, the Dutch Dairy Association (NZO) and LTO (Association of Dutch farmers) are striving to secure a future-proof dairy sector with happy cows and healthy consumers.



SUSTAINABLE DAIRY CHAIN

The goals for 2020 are:

- climate-neutral development
- ongoing improvement of animal health and animal welfare
- preservation of outdoor grazing
- protection of biodiversity and the environment

The Dutch dairy sector is of essential importance to the national economy. Its strong position in exports and job creation contribute to this. We are also an international leader in innovation and developing know-how. The sector is aware of the impact of its activities on the environment and animal welfare. These topics are becoming increasingly important in many regions. The scope of dialogues related to reaching sustainability goals has become increasingly broad, focusing on (financial and non-financial) value creation. For the dairy industry, this value creation is a key topic. The scope not only encompasses profit and sales, but also includes values such as brand identity and image, quality, human wellbeing and the ability to innovate.

The Dutch dairy sector takes responsibility for the impact of its activities throughout the value chain. The sector wants to add value at every stage of production. For the dairy sector, responsible growth means taking societal concerns into account.

The Dutch dairy sector proactively takes on challenges and responsibilities, achieving fantastic results over the past 25 years. Examples of successes include critical quality systems and supply conditions governing hygiene, milk quality and animal health.

However, the sector continues to face many challenges, such as the increased scale of dairy farms, the growth of milk production per cow and the global population's increasing demand for dairy. With this in mind, NZO and LTO Nederland initiated the Sustainable Dairy Chain, working towards a future-proof and accountable dairy sector. Goals set for 2020 include, amongst other things, climate-neutral development, constant improvement of animal health and welfare, preservation of outdoor grazing, protection of biodiversity and the environment. The formulated goals are realistic, albeit definitely challenging. The first goal focuses on climate-neutral

RESPONSIBLE GROWTH INCLUDES SOCIAL CONSIDERATIONS

development. Between 2012 and 2015 a huge decrease in primary fuel consumption per kg of milk produced, was achieved (60 a.e. per 1,000 kg of milk in 2015⁹ for milk processing (30%) and dairy farming (9%). This decrease was mainly the result of the use of sustainable electricity. The second goal is continuous



improvement of animal health and welfare. One component of this goal is to reduce the use of antibiotics. Between 2009 and 2015, the use of antibiotics in dairy farming dropped by 47%. In 2015, reduction was 3% compared to 2014. With regard to the responsible use of antibiotics, the Sustainable Dairy Chain decreed that more than 90% of dairy farms should remain below the SDA action value (6 DDDAf)¹⁰ in their use of antibiotics. In 2015, this goal was achieved with a 99% success rate. The third challenge - the main focus for coming years - is preservation of outdoor grazing. In 2015 the proportion of businesses which relied on outdoor grazing seemed more or less unchanged from 2014 (77.8 to 78.3%). In 2016 the proportion of businesses increased to 78.9%. The goal is to reach the level achieved in 2012 (81.2%). The use of 100% responsible soya for cattle feed was realised in 2016. This was one of the targets of the fourth and final goal - protection of biodiversity and

the environment. As a result, the Dutch dairy sector is an international leader in purchasing of responsible soya. This goal has been achieved in close collaboration with the World Wildlife Fund (WWF), Solidaridad (non-governmental organisation) and Natuur & Milieu (Foundation for Nature and the Environment). From 2015 on, responsible soya was listed as one of the supply conditions for all individual dairy businesses.

Further goals relating to the emission of greenhouse gases, phosphate and ammonia remain challenging, partly owing to imminent legislation. Currently the production of ammonia, for example, exceeds the target for 2020 by some 22%.¹¹ External independent organisations are monitoring progress on each Sustainable Dairy Chain goal. Results can be found at www.duurzamezuivelketen.nl.



Rogier Schulte
Head of the research group Farming Systems Ecology at WUR

Sustainable Diet

Almost every Dutch person has been raised on milk, cheese and other dairy products. Most people know that milk contains a lot of nutrients. Dairy can provide a significant portion of the recommended daily intake of vitamin B2 (25%) vitamin B12 (35%), calcium (30%) and phosphor (30%). In its Guidelines for a Healthy Diet (Richtlijn Goede Voeding), the Health Council states that dairy contributes to protecting against bowel cancer and yoghurt reduces the risk of type 2 diabetes. In the Netherlands milk and dairy products are included in government dietary recommendations.

In 2050, the world will need approximately 60% more food than is currently being produced. The challenge is to feed the global population with food that is both healthy and sustainably produced. Dairy is vital to a healthy diet, as it contains high-quality proteins, fats, vitamins and minerals. Research carried out by the Food and Agriculture Organisation (FAO) and the World Wildlife Fund (WWF) shows dairy is part of a sustainable, healthy and affordable diet⁽¹²⁾. It is a source of essential nutrients, such as high-quality proteins, fats, vitamins and minerals. In addition, dairy production is becoming more and more sustainable.

The Dutch dairy sector can contribute to the global demand for sustainable and healthy food. Our soil and climate conditions are ideal for dairy farming and the Netherlands is at the forefront of sustainable dairy production. Average emissions from a Dutch dairy cow are 1.2 kg of CO₂ per litre of milk; the global average is twice that amount: 2.4 kg of CO₂. Our experience and knowledge of healthy and sustainable dairy production can be regarded as a valuable export product that can improve and make milk production around the world more sustainable.

We often read that ‘less animal production is better for the environment.’ Professor Schulte (Head of Research group Farming Systems Ecology at Wageningen University & Research,

WUR) and professor De Boer (head of Animal Production Systems research group at WUR) explains that this cautionary note must be seen in context. In most industrialised countries, consumption of animal produce is higher than is advised in the WHO guidelines for a healthy diet. Eating less animal produce may also be better for the environment. In many developing countries and emerging economies, however, animal produce can be an important supplement to the existing diet. In such circumstances, cattle can contribute to sustainable food supply. Pigs, chickens and cows are capable of converting products we cannot eat – such as grass and waste streams from the food industry – into high-grade nourishment. In this way, the bare grasslands of Kazakhstan or Dutch peatlands can contribute to a sustainable food supply.

Sustainable and healthy food

According to Schulte and De Boer, three questions need to be answered to achieve a sustainable and health diet:

1. What do people need?
2. What kind of food can most efficiently meet this demand?
3. Where can this food be produced under optimal conditions?

Consequences of climate agreement

The 2015 climate conference in Paris (also known as ‘COP21’) resulted in the Paris Agreement. This agreement was signed by representatives of 174 countries in New York on Earth Day (22 April 2016). The intention of this conference was to enter into a statutory, binding, universal climate agreement. Objective of this agreement is restriction of greenhouse gas emissions, to limit global warming and thereby work towards a climate-neutral world. The countries involved will meet every five years in order to ascertain whether their climate plans need to be tightened.

As an elaboration of the COP21 climate agreement, the European Commission published a set of proposals at the end of November 2016. For the sectors such as agriculture, which are not a part of the Emission Trading Scheme, a national goal of reducing greenhouse gas emissions by 36% by 2030 compared to 2005 has been set. The Energy Research Centre of the Netherlands and the Netherlands Environmental Assessment Agency jointly calculated which non-ETS sectors can most cost-effectively help reduce greenhouse gas emissions.

The main focus lies on the transport, built environment and agricultural sectors. The Dutch government will soon be passing a resolution regarding the assignment of tasks to each sector in the Netherlands.

Although it is not yet clear which emission reduction the dairy sector needs to fulfill, every effort is being made to obtain a clear view of the challenges and opportunities of the climate policy. New policies need to take into account the fact that animals produce greenhouse gases and that this cannot be reduced to zero.

The Sustainable Dairy Chain initiative will play an important role in drafting and implementing the climate sector plan, which is to be submitted to the Ministry for Economic Affairs during the second quarter of 2018.



Ren Wang
FAO Assistant Director-General

“THE DAIRY SECTOR PLAYS A **KEY ROLE** IN THE IMPLEMENTATION OF THE SUSTAINABLE DEVELOPMENT GOALS FROM THE UNITED NATIONS 2030 AGENDA. THESE **GOALS** INTEGRATE THE THREE DIMENSIONS OF SUSTAINABILITY (ECONOMIC, SOCIAL AND ENVIRONMENTAL), CALLING FOR EFFORT FROM ALL PARTIES INVOLVED”



EMISSIONS
Average CO₂ emissions from a Dutch dairy cow are 1.2 kg of CO₂ per litre of milk

Worldwide, average emissions from a dairy cow are twice that at 2.4 kg of CO₂ per litre of milk



SDGs

The dairy sector can play an important role in meeting SDGs. Its dairy products are also essential for reducing poverty throughout the world and improving food security

WIND AND BIOMASS

48% of green energy for the sector comes from wind and 45% is derived from biomass: energy mainly comes from affiliated dairy farmers

LONGTERM AGREEMENT 3 COVENANT (LTA3)

The energy efficiency goals for 2020 in the covenant on reducing energy consumption have already been comfortably achieved

Circularity within business operations

Circular thinking is an extension of the COP21 challenges. Although various businesses in the sector have been working with this philosophy for years, more projects are currently focusing on circularity. Manure is one important related topic. A sustainable dairy chain can be created once businesses take a step back and look at the entire supply chain, not just their own position in the chain. A new type of collaboration is one involving businesses from outside the dairy sector into the dairy chain. For example new business models involve biogas produced from dairy farms' residual products (manure). Using a combined heat and power system, biogas can be converted into electricity and heat. Upgraded green gas can be introduced into the natural gas network.

Sustainable Development Goals

The Sustainable Development Goals (SDGs) are part of the United Nations 2030 agenda and provide the international framework for sustainable development. The main aim of these seventeen goals is to end extreme poverty, inequality, injustice and climate change around the world. The dairy sector also aims to contribute to achieving these goals.

In October 2016, during the IDF World Dairy Summit in Rotterdam, the sector signed the Dairy Declaration, drawn up by the International Dairy Federation (IDF) and the Food and Agriculture Organization (FAO). In this document the FAO emphasises the important role the dairy sector can play in attaining the SDGs and how dairy products are essential for reducing poverty and improving food security throughout the world.

THERE HAS BEEN A SIGNIFICANT INCREASE IN CIRCULARITY WITHIN BUSINESS MANAGEMENT

By drawing up and signing the Dairy Declaration, the dairy sector underlines its proactive attitude towards continued responsible sector growth. SDGs are already embedded in the business strategy of certain businesses in the dairy sector.

Green electricity

Research carried out by the Dutch Dairy Organisation (NZO), Nederland ICT, the Association of Universities and the National Authority for Dutch Entrepreneurs (so-called RVO, Rijksdienst voor Ondernemend Nederland) shows the Dutch dairy industry purchases 76% of its electricity as green power. Last year the dairy industry purchased a total of almost 2 billion kWh of electricity. 1.5 billion kWh was produced sustainably. Nearly half (48%) of the green energy came from wind and 45% was obtained from biomass. To a large extent, this energy was sourced from affiliated dairy farmers. The dairy industry has already largely met the energy efficiency goals for 2020 (30% efficiency savings compared to 2005) through procurement of green electricity. This is enshrined in a covenant between government and dairy factories.



Which SDGs are relevant to the dairy sector?

The dairy sector can make a significant contribution to ending poverty (SDG1) by directly and indirectly supporting the livelihood of 150 million farmers. The dairy sector creates employment throughout the value chain, which provides a way out of poverty whilst also contributing to full and productive employment for all (SDG8). In addition to these contributions, the sector can play a role in reducing inequality between countries, regions and genders (SDG5 & SDG10).

Women hold very important positions in the worldwide dairy sector. According to research by J.Njuki and P.C. Sanginga (2013) cattle are primarily managed by women in 25% of dairy farmers' households. Worldwide, 80 million women are employed in the dairy sector. Often, this is a first step to improving their social position.

By working together throughout the chain, the dairy sector can also make a contribution to improving food security (SDG2) and human health (SDG3) by coordinating supply and demand and innovation. Goals such as fighting climate change (SDG13), protecting and restoring terrestrial ecosystems (SDG15) and promoting sustainable management of water and sanitation (SDG6) are also a good match for the dairy sector's capabilities. The objectives above are in line with the goals formulated by the Sustainable Dairy Chain initiative. In this way the Dutch dairy sector is able to contribute to solving global challenges at a local level. In order to achieve these goals, it is vital that the various stakeholders in the chain collaborate with one another (SDG17). The Dutch dairy sector can share its knowledge and innovations in this area, making it applicable and accessible to all farmers. 🐄



2030 UNITED NATIONS AGENDA

The Sustainable Development Goals (SDGs) are part of the United Nations 2030 agenda. They represent the international framework for sustainable development

SUSTAINABLE FUTURE

Primary aim of these 17 SDGs is to end extreme poverty, inequality, injustice and climate change in the world

GERDA VERBURG, UNITED NATIONS ASSISTANT SECRETARY-GENERAL,
COORDINATOR OF THE SUN MOVEMENT

‘CONTINUE TO BUILD ON THIS LEADING POSITION’

Gerda Verburg on challenges the Dutch dairy sector must confront in coming years.



Gerda Verburg is United Nations Assistant Secretary-General and Coordinator of the SUN Movement. In the Netherlands' Balkenende IV cabinet, she was Minister of Agriculture, Nature and Food Quality

What are the consequences of COP21 for Dutch dairy farmers?

“It is difficult to predict the short term implications of this, given that they closely depend on manageable phosphate regulations for the Dutch dairy sector. Regarding long-term implications, it is important to consider the Paris Climate Agreement and Sustainable Development Goals (SDGs); these are, in fact, interrelated. Precisely because of this, the opportunities arise for the Dutch dairy farmer.”

INVESTMENT MUST BE WORTHWHILE OR PROVIDE PROSPECTS, OTHERWISE THIS IS A NON-STARTER FOR FARMERS

“Our dairy sector is well organised and can continue to build on its international leading position. This includes endeavouring to make innovation sustainable, providing energy-neutral or net energy, making quality a top priority, charging fair prices right throughout the chain, being transparent and connecting with consumers. In so doing the sector needs

to take account of society, the landscape, nature and the circular economy.”

“In order to meet this challenge, a constructive dialogue and collaboration is required between all parties in the dairy cattle chain and dairy chain. Political expertise, understanding and passion for the significance of the dairy sector, however, are also crucially important.”

What are the biggest challenges facing the dairy sector in terms of the SDGs?

“Making a good business case for innovative breeding and dairy farming is one of the biggest challenges. Investment must be worthwhile and provide prospects, otherwise this is a non-starter for farmers. Currently too much consideration is given to individual sustainability goals. For example, the dairy sector is expected to focus on SDG2 (zero hunger and malnutrition). It is both appealing and challenging to uncover the coherence between the SDGs, or the 2030 agenda. Looking at the full range of SDGs, you can see how the dairy sector might also play a role in developments related to water, energy, education, health and more. In this way, the sector can make the most of its core strengths, placing product and service quality first, fostering interaction with educational facilities, acquiring and sharing knowledge, encouraging research institutes and forging a close affinity with consumers. To support this



leading position, it is also important that the dairy sector establishes contact with civil society organisations and trendsetters. These are able to map out longer-term developments. Using this knowledge, the sector can take on challenges and make the most of opportunities. Through collaboration it can preserve and strengthen its impact.”

Which organisations in the Netherlands need to start working together?

“The first condition is to keep the entire dairy chain strong and jointly remain focused on this leading position. The weakest link in the chain will determine its strength. Cooperation

with other parties in the agricultural, horticultural, and the food and pharmaceutical sectors must be geared towards collaboration aiming for a win-win situation. Be prepared to enter into commitments with less obvious parties, such as nature and landscape organisations or NGOs. Relinquish fixed structures and institutions and think in terms of networks. In conclusion, here is another piece of advice from someone who has looked at the Netherlands from an outside perspective for the past six years: The Dutch have an aptitude for collaborating with other groups and are generally solution-oriented and creative. It is good to keep this multi-sector approach in mind.” 🐄

THE NETHERLANDS: DAIRY COUNTRY

Dairy farming is important to the Dutch economy. We are the fourth largest actor on the global market and contribute substantially to the Dutch trade surplus.



THE LARGEST DAIRY COUNTRIES

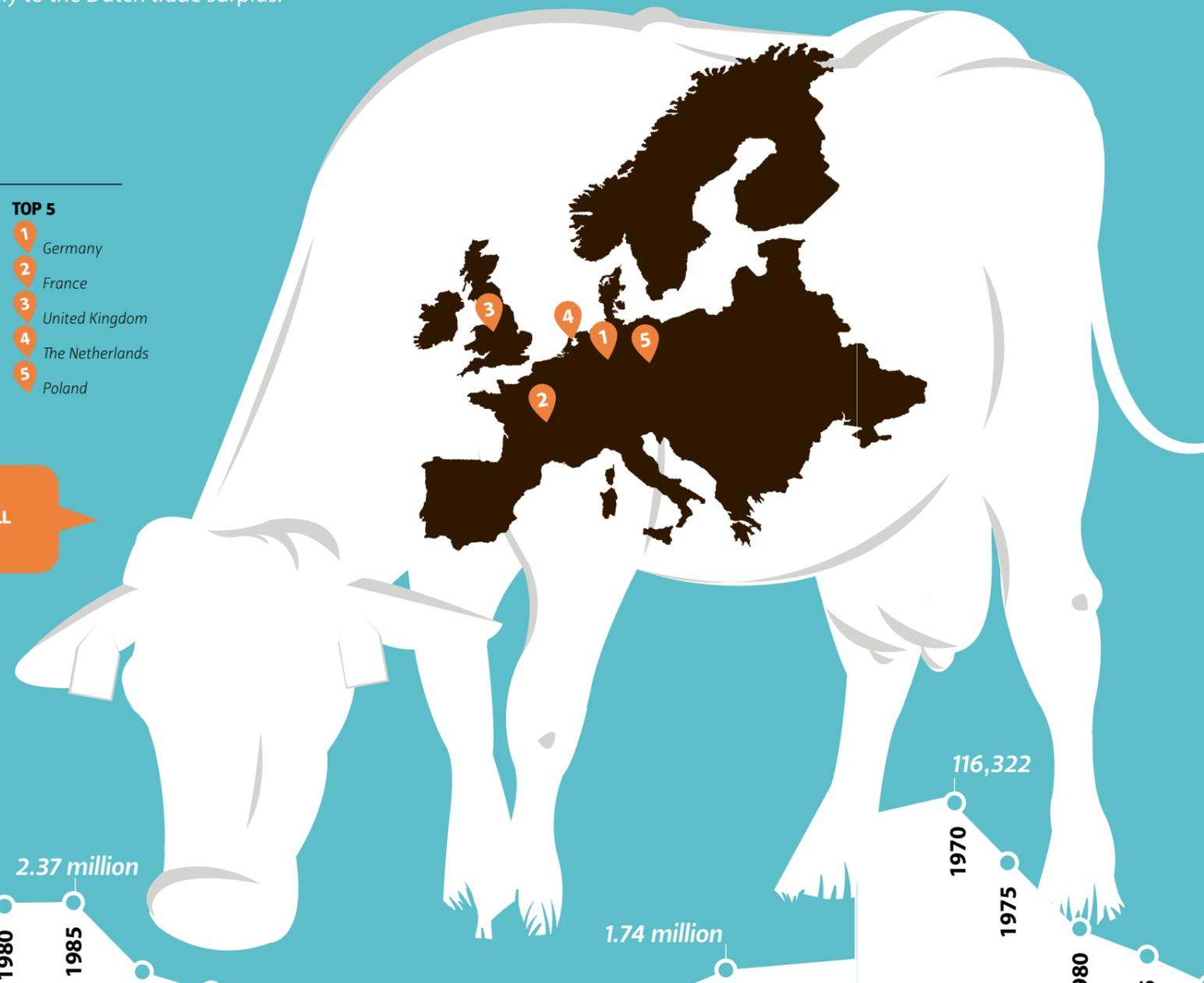
The Netherlands is one of the five largest producers of milk in Europe. In 2016 the Netherlands produced 14.5 billion kilograms of cow's milk, a huge increase compared with 2015 (13.5 billion kilos).

Source: CBS

TOP 5

- 1 Germany
- 2 France
- 3 United Kingdom
- 4 The Netherlands
- 5 Poland

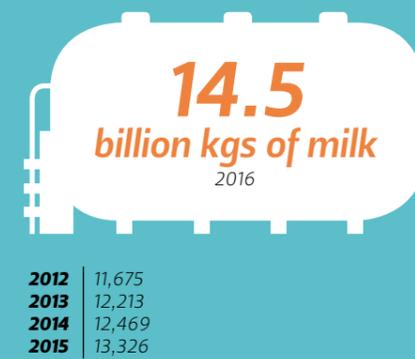
THE NETHERLANDS PRODUCES 8% OF ALL MILK IN EUROPE



PRODUCTION VALUE in billions of euros



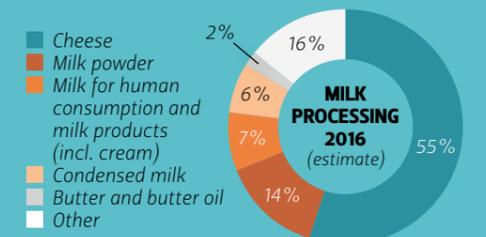
QUANTITY OF FARM MILK in millions of kg



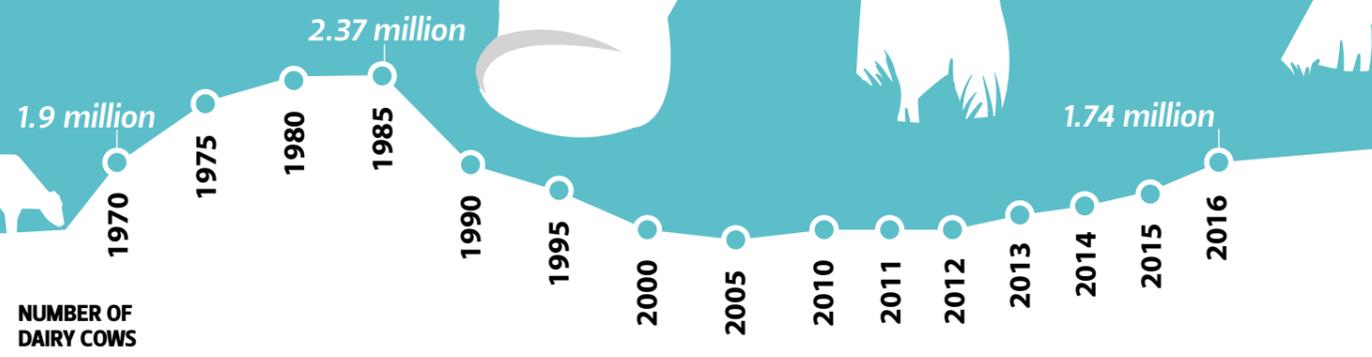
Source: RVO

DAIRY PRODUCTS

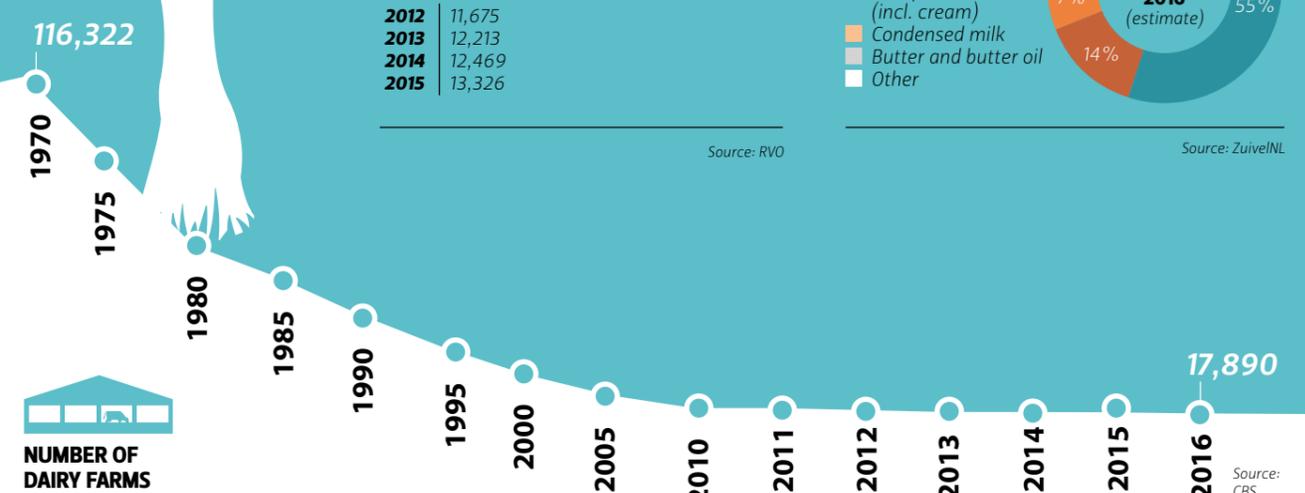
Milk produced in the Netherlands is processed into dairy products such as cheese, butter, milk for human consumption, yoghurt and milk powder. Whey, a by-product of cheese production, is also used extensively. It is, for example a source of high-quality proteins for baby food, medicines and sports drinks.



Source: ZuivelNL



NUMBER OF DAIRY COWS



NUMBER OF DAIRY FARMS

Source: CBS



Nol Verdaasdonk is chairman of the Brabant Environmental Federation, committed to achieving a sustainable Brabant province

IT IS IMPORTANT TO TAKE CLIMATE DISCUSSIONS AND RAISING CITIZENS' AWARENESS SERIOUSLY

Nol Verdaasdonk: “The future of the dairy sector in the Netherlands’ Brabant province is in extensive livestock farming. In other words: more small-scale dairy farms rather than a small number of intensive farms with many cows. Intensive farms place too much pressure on the welfare and health of citizens, nature and the environment. We must consider all costs of the production process. In a densely populated area, such as the Netherlands’ Brabant province, you should not aim to produce in bulk, but instead be selective with sustainable products, which may often command a premium price. This also enhances the legitimacy of dairy farming amongst the general population, for whom the quality of nature and the landscape are increasingly important when looking for a location.”

Paris Climate Agreements

“The 2015 Paris climate conference resulted in agreements on the reduction of methane and phosphate emissions. This is very challenging in intensive dairy farming, which is why we support farmers in producing in a sustainable manner. To ensure products, produced in a more sustainable way, governments can compete with industrial products fairly, the latter need to be taxed more heavily. My appeal to the sector: take climate discussions and attempts to raise citizens’ awareness of the environment and healthy food seriously. Land-based businesses are part of the solution. More attention should be paid in this aspect in education, from secondary vocational education all the way to university.” 🐄



Tjerk Wagenaar was Director of the foundation Natuur & Milieu (Nature & the Environment) since 2010. This organisation advocates soil-bound dairy farming in which cows can pasture in meadows and farmers can spread the manure on their own land

A GREEN POWERHOUSE WITH SUSTAINABLE ACTIVITIES

Tjerk Wagenaar: “Our sector can become a so-called green powerhouse through product differentiation and product value creation. In the Netherlands, producing at the lowest price should not be the goal - land and labour are too expensive. We should move in the opposite direction and offer premium products produced through a sustainable way of working. This reduces the greenhouse effect and protects biodiversity. I am a proponent of introducing food quality labels for dairy products. Consumers might pay a little bit more, but are assured that products are produced in a sustainable manner. To effectively implement such a quality label in the market, we need to work together with the retail sector. Our sector can also do much more in the area of bringing products and services to market.”

Optimistic

“We need to consume less meat and dairy products. An unpopular message, but in my opinion these products do place a huge burden on the environment. Our sector is sufficiently innovative to compensate for this. I expect that we will progress to a better world over the next ten years through innovations, creating product value, government policies focusing on sustainability and promoting awareness amongst consumers. Many Dutch farmers are leaders when it comes to the implementation of sustainability. However, the number of cows and associated manure issues are preventing the sector from meeting climate requirements. We will also need to reduce export of products, instead we should export our knowledge abroad.” 🐄

LOCAL PRODUCTION: ESSENTIAL TO REMAINING VISIBLE

Kees Romijn: “The Dutch dairy sector has a reputation for being sustainable thanks to its high standards of quality and focus on health and the environment. In the coming years, climate and greenhouse gases will play a prominent role. Dutch dairy farms, can have an advantage by extracting additional added value from this development. It is important to continuously coordinate with one another, work together and show commitment throughout the chain.”

Use of big data

“I predict increased collaboration and use of big data. The Netherlands will retain a strong international position by making local production essential and maintaining a high profile. For that reason our country will be internationally acclaimed in the future, and our young farmers will be admired by society. After all, they make the most important thing people need: food!” 🐄

WE MUST CONTINUE TO FOCUS ON THE RIGHT ISSUES

Harm Wiegiersma: “Farmers manage and preserve the countryside in traditional ways. Many farmers contribute to meadow bird management, sometimes independently, but also working with official nature conservation associations. Farmers make sure drainage ditches keep flowing, remove weeds and, together with hunters, support effective wildlife management (to the extent permitted). They see what is going on in the countryside. Their natural environment is a precondition, the foundation for their business.”

Counter-productive

“Dutch dairy farmers have a very environmentally-friendly approach to their work and deliver high-quality products. As other countries are also making inroads in these areas it is questionable whether this will exclusively remain a typically Dutch feature. The effect of the many regulations imposed on farmers through supply conditions will ultimately be counterproductive. Milk is good and something that can be marketed. We must continue to focus on the right issues.” 🐄



Kees Romijn is chairman of professional group LTO Dairy Farming (LTO Melkveehouderij). He is stakeholder of LTO Dairy Farming since 2001



Harm Wiegiersma is a dairy farmer and chairman of the Dutch Dairy Farmers’ Union (Nederlandse Melkveehouders Vakbond, NMV)

KEES DE KONING, MANAGER OF DAIRY CAMPUS

‘COMBINING GOOD PRACTICES WITH SCIENCE’

By combining good practices with science, Dairy Campus – a place where livestock farmers, agricultural education institutions, scientists and entrepreneurs can jointly work on new solutions and innovations – manages to make dairy farming more sustainable.



Kees de Koning is manager of Dairy Campus, the national innovation centre for dairy farming

“Dairy Campus is the national knowledge centre for dairy farming and dairy chains. Our mission is to combine good practices with science. At the dairy campus, innovation, education and practice come together. In our stables, cows don’t just produce milk; they also generate data for an increasing variety of research projects. With this data we aim to make dairy farming more sustainable. The way in which researchers from different disciplines work together with the business community and livestock farmers makes the dairy campus unique. Research results and innovations can rapidly be made available for practical use at farms, schools and businesses.”

Minimising losses

“In the Netherlands, farmers will always need to consider optimal use of commodities, lifespan and animal welfare. Our farmers lack space. They have to use their knowledge to the fullest extent, in order to achieve the best possible results with minimal losses in terms of raw materials and minerals.”

Drones over the meadow

“Dairy Campus will keep changing. In ten years’ time, we will not only be researching other topics, our network will expand and incorporate even more international researchers and students.”

“OUR COWS DON’T JUST PRODUCE MILK, THEY **GENERATE DATA**”

I expect that in the very near future students and visitors will be able to participate in research in an even more virtual way. This will be made possible using screens in stables, which show what our cows are doing. Perhaps drones will soon be flying over our pastures to conduct a new type of research.” 🐄

EXCELLING THROUGH COLLABORATION

Continuous innovation within the sector and collaboration with our renowned knowledge institutes are essential to remaining a top sector.

The Netherlands is a dairy world champion. Our country excels at making milk and cheese products. We are well known for these products around the world. The Dutch dairy sector is a stable, strong sector that has managed to maintain its good position for decades. At the same time our dairy chain with its 17,890¹³ dairy farms is facing a challenge: working on sustainable development whilst strengthening and expanding its position in a globalising world. To meet this challenge, collaboration between all actors in the dairy cattle and dairy chain is crucial. Growth in volume and growth in knowledge go hand in hand. If the Dutch dairy sector wants to stay in the lead, it must continue to excel in many areas. Several examples of initiatives which support the strong global position of the dairy sector are described below.

Milking robots

Businesses in the dairy sector are investing heavily in innovation. The Netherlands is home to some of the world’s most pre-eminent knowledge institutes in this field. Wageningen University & Research, NIZO laboratory and food research (food technology R&D centre) and Qlip (Quality, Laboratory,

Inspections and Process Certification) ensure that the best and most recent methods are used. In addition, the Netherlands also invest heavily in R&D. The ‘Lely’ family business is a good example of this. It develops and produces agricultural machinery including milking robots. The Netherlands is now the market leader when it comes to exporting milking robots¹⁴. 🐄



KNOWLEDGE INSTITUTIONS
Wageningen University & Research (WUR), NIZO food research and Qlip are implementing most innovative methods

R&D
NZO members invest 90 million euros into R&D each year

CAREL DE VRIES, PROGRAMME DIRECTOR OF COURAGE

‘OUR AGRICULTURAL CLUSTER NEEDS TO DEVELOP THE FOOD SYSTEMS OF TOMORROW’

An appealing, biodiverse and beautiful rural landscape also leads to financially sound dairy farmers.



Carel de Vries is programme director for Courage, an innovation organisation for the dairy farming industry

“Many innovations, such as milking and feeding robots, are geared toward technical efficiency on the farm. We have been very successful in this area. Soon, we will target our innovation towards the land, where we will see the first robots working. If Google’s autonomous car can cruise the highways, it

“THERE IS A NEED FOR ORGANISATIONAL INNOVATION AT SECTOR LEVEL”

should be able to drive around a field too. ‘Courage’ (an organisation promoting innovation in the dairy sector) is working together with Wageningen University & Research on automated grazing, using a virtual grid. Results so far are very promising. Our farmers are entrepreneurs and highly educated. We have access to well-known knowledge institutes including three technology universities and Wageningen University Research. We need to think and work ahead. Our fantastic agricultural cluster needs to start developing of the food systems for tomorrow’s world.”

Organisational innovation

“The environment in which we operate is increasingly complex and demanding. In my opinion, there is a great need for organisational innovation at sector level. Being well organised and working together with social organisations is not an easy task, but absolutely essential to realising progress. Together, we will fight for an attractive, biodiverse and beautiful rural landscape in which we can all earn a living. If we take this road, business will be more successful in ten years, I expect.”

Food is everything

“Food security is a main geopolitical issue in this century. Climate change and over-exploitation of resources pose an enormous threat to our earth. According to the United Nations, there could be 200 million climate refugees by 2050. To put this in context: this number represents the population of South Africa and Brazil combined. These people will move to countries where they can find food and drink. The Netherlands is unable to feed the entire world. But our knowledge, entrepreneurship and economic strength will allow us to provide the tools and instruments that can contribute to feeding the world.” 🐄

BART VAN DER HOOG, MANAGER OF NAJK AND JORRIT KIEWIK, DIRECTOR OF YFM NETHERLANDS

‘SHARE THE POSITIVE, HONEST STORY!’

Once society is proud of its farmers, the future of dairy farming will flourish.



Bart van der Hoog is manager of the dairy farming portfolio for the Dutch Agricultural Youth Association (Nederlands Agrarisch Jongeren Kontakt, NAJK)

Bart: “In terms of the production chain, dairy farming is working with fewer different milk streams. Do you expect greater diversity in the next few years?”

Jorrit: “Demand for products with a ‘back story’ will increase. Milk from exclusively grass-fed cows, for example, or from cows that graze only in pastures. We are becoming increasingly aware of the importance of a healthy diet. This trend will result in greater dairy diversity in retail outlets.”

Jorrit: “What will dairy farming be like in 30 years’ time, given the sustained trend towards intensive farming?”

Bart: “I do not expect intensive farming to prevail. I do, however, think dairy farming will claim far more land. The dairy farming sector faces a number of challenges. The biggest of these challenges is connecting with society. Dairy farmers have a positive, honest story to tell, unrelated to their production methods. These stories are now only reaching consumers very gradually. The dairy chain, in my opinion, should invest heavily in reaching out and communicating, which will bridge the gap between dairy farmers and society. When society is proud of its farmers, the future of dairy farming will flourish.”

Bart: “Thanks to the success of large-scale milk processing in cooperatives and private dairy businesses, dairy farmers no longer need to focus on marketing, communication and sales. As a result, individual dairy farmers have little influence on pricing and success. What do you think of this?”

Jorrit: “I think and hope that more and more milk processors will focus on marketing their brands toward the producers of their basic product: dairy farmers. Each has a unique story to tell and is motivated to produce milk. After all, cooperations exist to improve matters for dairy farmers.”

Jorrit: “Is the current growth model of producing for the world market sustainable?”

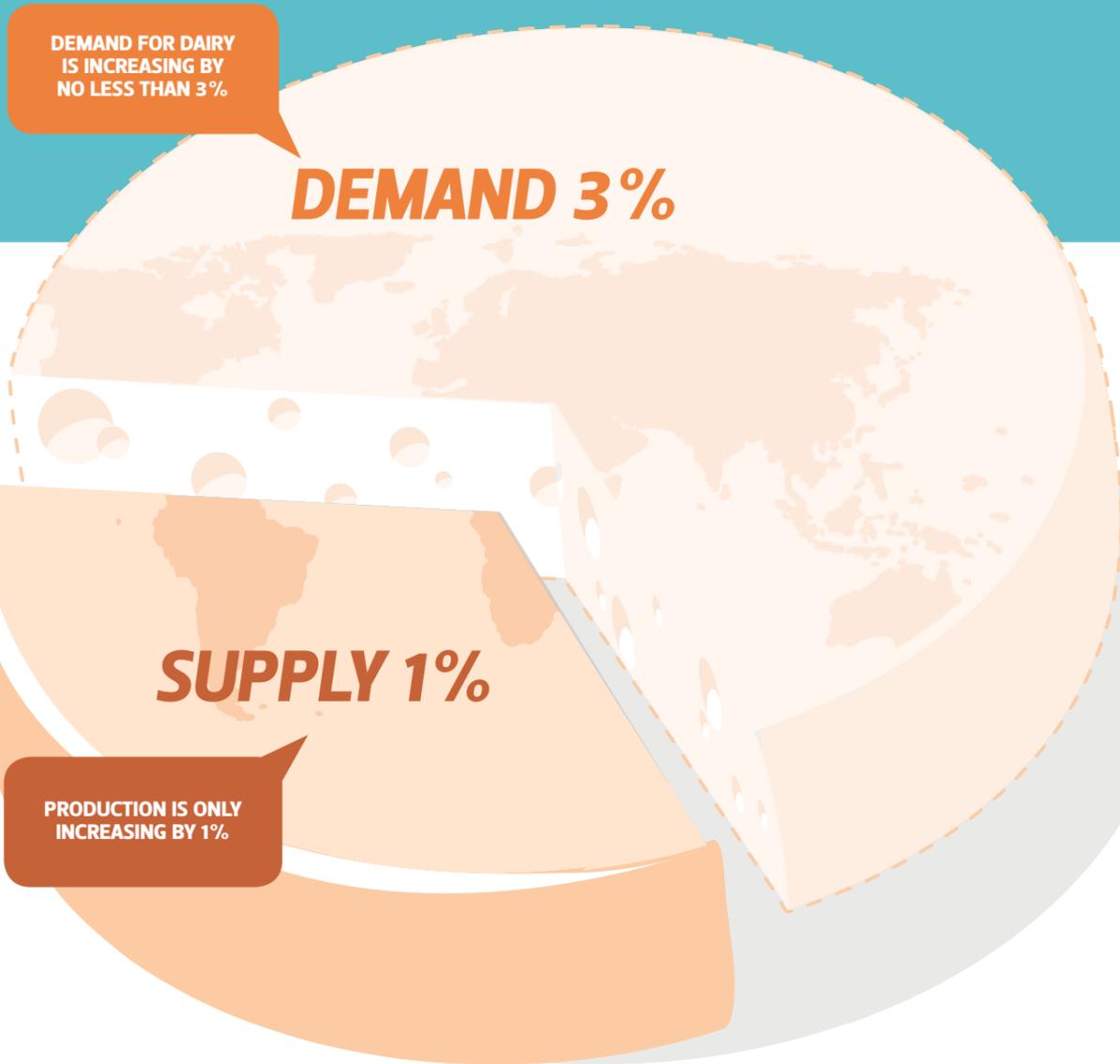
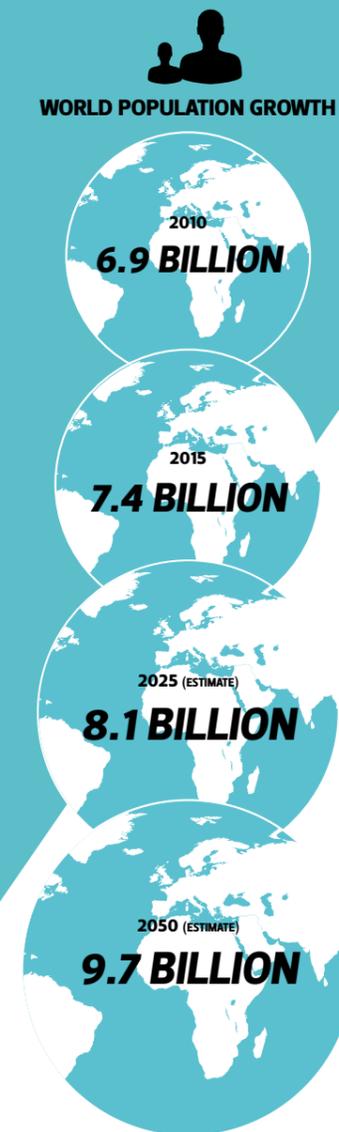
Bart: “Growth is not simply a matter of more cows or more litres of milk, even though a number of dairy farms have experienced unilateral growth. Young farmers need to ask themselves whether a large-scale dairy farm really suits them. Growth potential might be limited due to circumstances. Every dairy farm needs to develop in order to maintain prospects. This growth or development, however, does not always mean increasing the herd.” 🐄



Jorrit Kiewik is the director of Youth Food Movement (YFM) Netherlands, and previously worked as community manager on The Milk Story

GLOBAL DEMAND EXCEEDS SUPPLY

Dairy producers are working overtime, but are still not expected to keep up with the global demand for dairy. Higher disposable incomes and urbanisation will be responsible for a shortage in the market.



REASONS FOR INCREASING DEMAND

- Higher disposable incomes
- Urbanisation results in easier access to supermarkets and refrigerators



CURRENT DUTCH MILK POWDER PRODUCTION IS ONLY 1/18 OF THIS

GROWING DEMAND FOR DAIRY

Internationally, Dutch dairy has an outstanding image when it comes to quality. The sector can also benefit from worldwide population growth, increasing prosperity, urbanisation and changing dietary habits.



DEMAND OUTSTRIPS SUPPLY

Global demand for dairy will increase by 2-3% in the next ten years. Milk production, however, will only grow by 1%

GROWING CONSUMPTION

Consumption per person grew from 114 kg of dairy per year to 127 kg in 2025. That means consumption of 2.5 kg per week

Worldwide demand for dairy is growing. Global demand is expected to increase by 2-3% each year in the next ten years. According to the calculations of the Organisation for Economic Co-operation and Development (OECD) and the FAO, consumption per person will grow to 127 kg of dairy per annum (2.5 kg per week) in 2025, compared to the current 114 kg. The dairy sector will benefit from worldwide population growth, urbanisation, increasing prosperity and a change in dietary habits. Demand for animal products and dairy is growing in South-East Asia, the Middle East, North and West Africa, Latin America and the Caribbean. Because disposable income in these regions is increasing, there is greater demand for premium products such as dairy. As a result of urbanisation, people have easier access to supermarkets and refrigerators for keeping dairy fresh. At the same time, worldwide milk production will grow by around 1%. The positive medium to long-term prospects for the dairy sector are the result of growing worldwide demand for milk production.

Export opportunities

The Netherlands is the fifth actor in the world market, after New Zealand, the United States and Australia. In spite of our country's modest size, the Dutch dairy sector commands a strong international position. The sector

accounts for about 2% of global milk production and some 5% of world dairy trade. The Netherlands, compared to the other Member States of the EU, has the largest export volume to countries outside Europe, followed in this by France and Germany. Dutch milk production represents some 8% of the EU total. 35% of dairy products made from Dutch milk are sold in the Netherlands, 45% in EU member states and 20% on the world market.

Besides milk, cheese is an important export product sold in and outside the EU. Proportionately, the Netherlands exports the most cheese, followed by milk, cream and consumer milk products. The export value of cheese increased by 68 million euros to 3.2 billion euros last year⁽¹⁵⁾. The figure on page 34 shows, that Germany is the biggest export destination for our cheese for years. 26% of all cheese imported by Germany in 2016 came from the Netherlands⁽¹⁶⁾.

Export markets

Poland, the Czech Republic, the Baltic States and Norway are fast growing Dutch dairy markets. Large export markets outside the EU include China, the United States, Saudi Arabia and Nigeria. Demand from these countries is expected to keep rising. Particularly in China, milk powder imports, including baby food,

are expected to grow⁽¹⁷⁾. In South East Asia and Africa, production of milk powder and ingredients lags behind the growing local need. The OECD and FAO estimate the shortage will amount to 3,600 kilotons per year in 2023, eighteen times the current milk powder production in the Netherlands⁽¹⁸⁾. The United States, China and Japan are well-known as importing countries, but countries such as Mexico, Malaysia and the Philippines are also increasingly importing milk products. The European Commission expects Europe will benefit most from this growing export market for several reasons. Production capacity is no longer restricted by quotas, and support for agriculture and effective infrastructure will allow Europe to further increase milk production.

THE DUTCH DAIRY INDUSTRY IS AMONGST THE WORLD LEADERS

In combination with product variety, efficient production of milk and high processing capacity this can provide an opportunity for European exports to grow further. In 2015 Europe held a 27% world dairy trade market share. At the same time, the EU contributed about a fifth to the world total of 784 million tons with 163 million tons milk production.⁽¹⁹⁾

Export value

Increasing demand for dairy provides significant opportunities for Dutch export. Over a period of five years, annual export value of the Dutch dairy sector has grown tremendously: from 5.4 billion euros in 2010 to 6.5 billion euros in 2016. The Netherlands has access to virtually all of the world's important growth markets for dairy. Growth opportunities for our country are in the continued development of products, offering added value. The Dutch cost price is not, in fact, critical even though other export

countries are able to produce and process milk at a lower cost. Due to strict legislation, regulations and high labour costs, the price of milk in the Netherlands is higher than in many other countries. The dairy sector, on the other hand, has an outstanding image in terms of quality ('Made in Holland'). Decades of collaboration between business, government and education, as well as advanced research and quality control, ensure that the Dutch dairy industry is a world leader in quality products.

Image

Dutch dairy products are appreciated by many people and find their way to countries inside and outside of the European Union. Governments play an important role in trading these products. International buyers and governments have confidence in the guarantees issued by the Dutch government and Dutch dairy sector. The Dutch Food and Consumer Product Safety Authority (NVWA) is the competent authority that issues certificates required to export animals and animal products. It also manages product safety and processing within the dairy chain. The Dairy Products Quality Assurance Board (COKZ) manages and supervises the dairy sector and ensures process and product quality criteria are in line with national and European legislation and regulations. The COKZ plays an important role in the export of dairy products. It monitors compliance with national and EU requirements. If destination countries stipulate specific conditions, the COKZ also checks these requirements. Exporters may demonstrate this compliance by means of an export certificate, issued by COKZ. In addition, the NVWA issues veterinary certificates. Every year this involves issuing a total of 76,000 export dairy certificates. Growing demand certainly offers opportunities for Dutch dairy, technology and know-how technology is not only required to meet the increasing demand for dairy, but also to produce sustainably, with a minimum impact on nature and the environment.



WORLD PLAYER

The Netherlands is the fifth actor in the world dairy market after New Zealand, the United States, Australia and Belarus.

DAIRY PRODUCTION

35% of dairy products made from Dutch milk, is sold in the Netherlands, 45% in EU member states and 20% on the world market

IMAGE

Dutch dairy's image of good quality is partly based on the faith and trust consumers abroad have in the government and the dairy sector

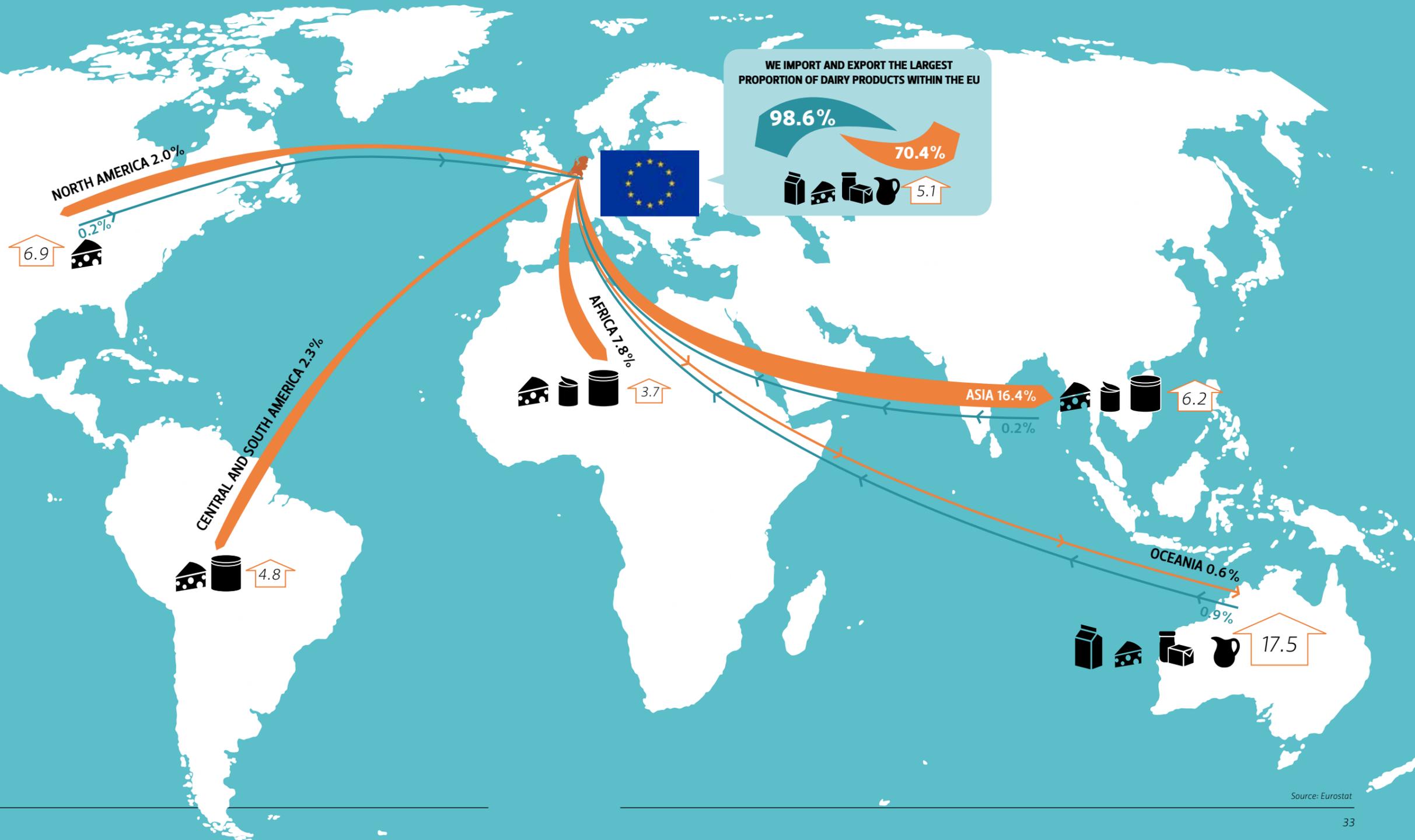
GLOBAL TRADE

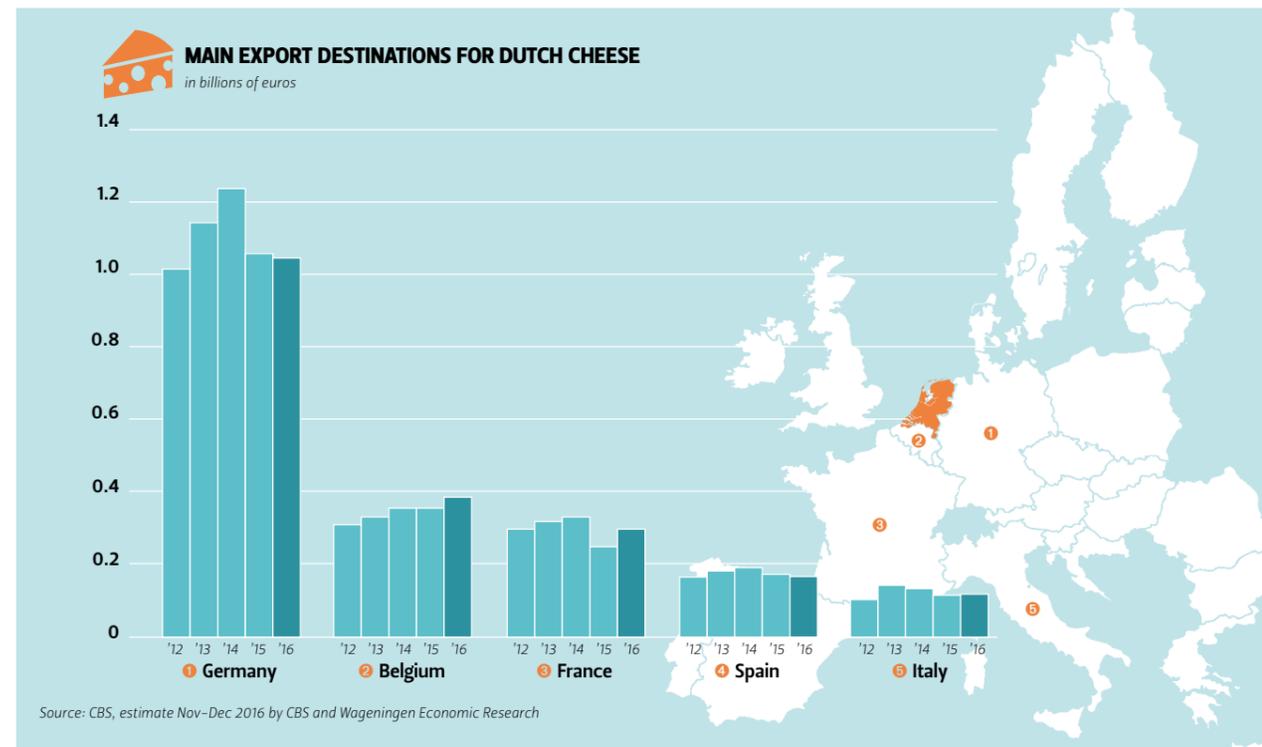
The Dutch dairy sector holds a solid international position. The sector produces some 2% of the total of the world's milk, accounting for about 5% of global dairy trade.

LEGEND



DUTCH EXPORT AND IMPORT OF DAIRY PRODUCTS as a percentage of the total value (2015, growth figures 2005-2015)





COKZ

Supervision on behalf of the government is delivered by the Dairy Products Quality Assurance Board (COKZ)

CERTIFICATES

The NVWA, partly on the basis of the checks of the COKZ, issues 76,000 veterinary certificates annually

Producing enough food for the growing world population on the smallest possible footprint is an increasingly daunting global challenge. That also accounts for the use of natural

GROWTH IS MAINLY IN ADDED VALUE

resources in relation to environmental conditions. A large part of food production will also have to be produced locally. The Dutch dairy sector can offer know-how, technology and design concepts for a more efficient and sustainable structuring of world food production. The Dutch government incentivises the export of know-how by, amongst other things, providing expertise and financing from the Agriculture & Food

premium sector. One project in 2016 focused on more efficient production and increasing milk quality in the Iranian dairy sector. Another project is the Sino-Dutch Dairy Development Centre (SDDDC) also aiming for improving dairy production, safety and quality right throughout the dairy chain in China; relying on Dutch expertise. Boosting the local production and exporting of know-how allow the Dutch dairy sector to make a significant contribution to the growing demand for sustainably produced dairy. 🐄

MARCEL VERNOOIJ, MINISTRY OF FOREIGN AFFAIRS

‘WE NEED TO USE OUR UNIQUE POWER MORE EFFECTIVELY’

The dairy sector has every reason to be proud. But it also needs to become stronger, says Marcel Vernooij.

“Internationally, our sector is showing extraordinary performance. This could improve if we use our unique qualities to the greatest possible effect and forge strong alliances. The sector must continue to innovate its product range. It has a history of fruitful cooperation with various East-European countries. Asia is upcoming as market and we see opportunities in East and West Africa, regions which have a tradition of dairy production. The sector can tap into this. Dutch businesses can offer farmers knowledge and invest in collaboration.”

Room for improvement

“Around the world, people are positive about the Dutch dairy sector. They recognise the quality of our products, innovative strength and sustainability drive. However, there is room for improvement: we need to tell our story more effectively! Our strength lies in our sustainable, efficient and environmentally friendly technologies, our premium products, and the fact that we excel at distribution, building networks and marketing products with added value. The Netherlands is unique

in the sense that companies, knowledge institutions, governments and social organisations cooperate in a very effective way and do not exclusively act separately. We need to explain how this pays off in the long run and how it contributes to a healthy sector.

“WE NEED TO BETTER EXPLAIN OUR STORY”

By promoting this kind of cooperation and investment we can remain ahead of our competitors. If you are going to invest in a country, look for partners. Local sourcing is also part of this.”

Enter into alliances

“The sector itself needs to demonstrate entrepreneurship. The Ministry can offer support, for example with diplomatic aid, help in matchmaking or by offering loans, through the Dutch Good Growth Fund.” 🐄



Marcel Vernooij is Management Team member of the Sustainable Economic Development Department of the Ministry of Foreign Affairs



INVESTING IN CAPACITY

FrieslandCampina invested about 200 million euros in expanding production in Leeuwarden and Borculo

In 2014 CONO opened a CO₂-neutral cheese dairy in Beemster

In 2015 Royal A-ware's new cheese dairy was put into service in Heerenveen. The factory has a capacity of 100,000 tons of cheese per year

In 2016 Vreugdenhil Dairy Foods opened an energy-efficient milk powder factory for infant nutrition.

This year, Ausnutria Hyproca will open a new baby food factory in Heerenveen

Domestic and foreign investments

Vast investments have been made to meet growing demand for dairy products and achieve economies of scale. Prospects are positive and the dairy industry has invested some 2 billion euros in additional processing capacity in the Netherlands over the past two years⁽²⁰⁾. In 2016 FrieslandCampina invested over 100 million euros in Leeuwarden to boost condensed milk production; the company invested the same amount of money in Borculo. Furthermore, millions have been invested in production in Beilen and various other locations in recent years. In late 2014, CONO opened a new cheese dairy factory in Beemster. In the CO₂-neutral building, new production technologies are combined with traditional cheesemaking methods. In 2015 Royal A-ware opened the doors of its new cheese dairy factory in Heerenveen. The cheese factory represents an expansion of its range of services and can produce 100,000 tons of cheese per year. In 2016, Vreugdenhil Dairy Foods opened a new, high tech factory, which is designed according to the highest hygiene and quality standards for the production of baby milk powder and ingredients for infant nutrition. In 2017 Ausnutria Hyproca opened a new baby food factory in Heerenveen. Dutch dairy businesses are involved in joint ventures and takeovers, in the Netherlands and abroad.

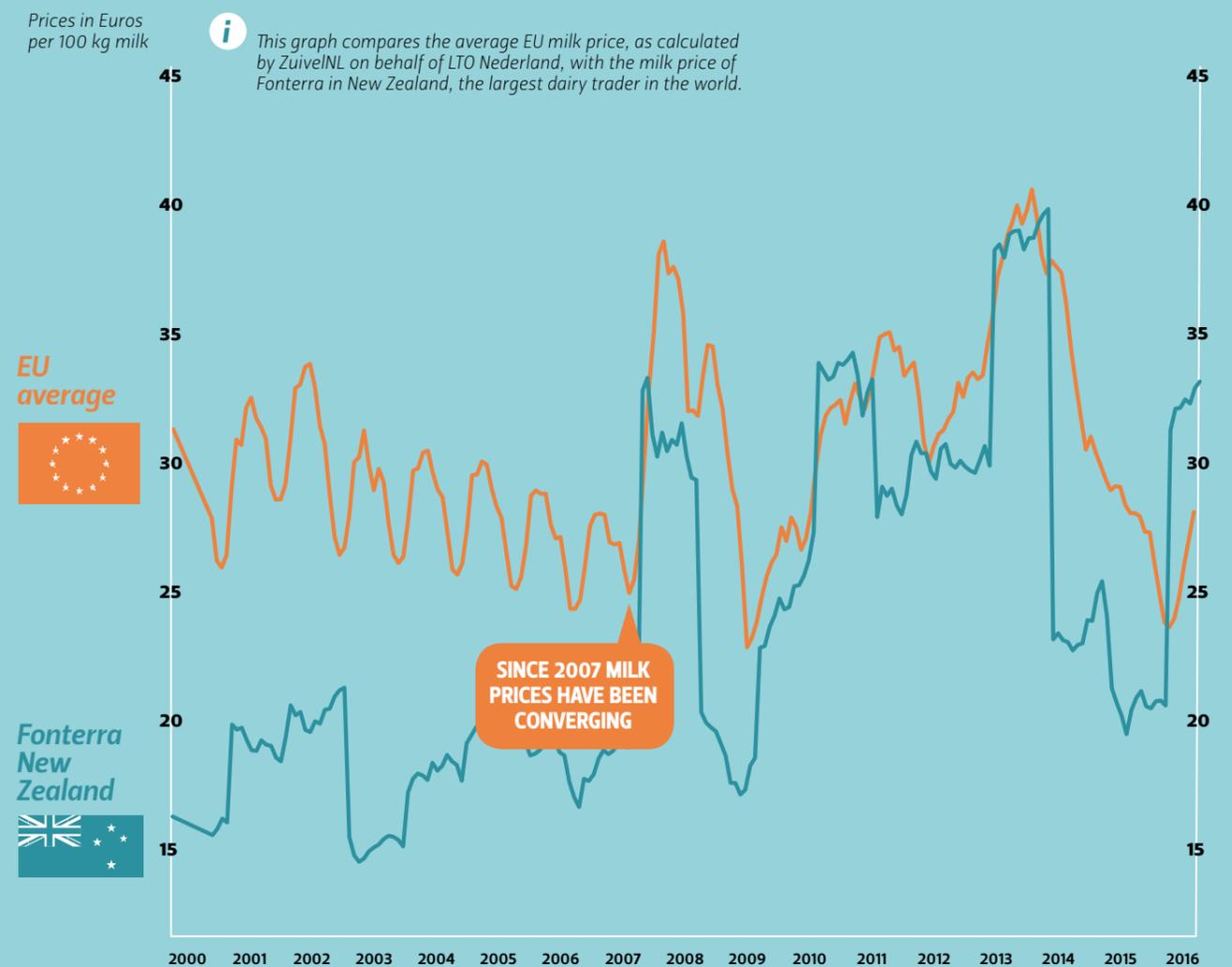
Price volatility

Up to 2007, Europe's dairy market was largely determined by EU agricultural policy. Export subsidies, production aid and milk quotas supported EU dairy market regulation, resulting in stable dairy pricing. Milk pricing and payouts to livestock farmers did not fluctuate as strongly in the EU as in regions without market regulation. For the past ten years, EU milk prices have reflected the erratic trend in global market pricing. As a result of dismantled market support, the European dairy market is linked more strongly than ever to the world market. Changes in global demand and supply of dairy products have strongly influenced pricing in Europe. The price of milk is heavily determined by its

relatively limited worldwide trading volume (only 8.5% of global milk production). This has resulted in sharp price fluctuations, which are critical to the price level of the other 91.5% of dairy products sold. The excellent starting position of the Dutch dairy sector allows businesses to absorb the consequences of such extreme price variations. With their high-quality premium products, the Dutch dairy sector can add value to milk sourced from livestock farmers. In this way, the Netherlands can make a difference on the international market. Companies can protect themselves more effectively from the negative consequences of price volatility by targeting higher market segments. Price volatility has been a permanent feature of the market since the dismantling of EU market regulation. 🐄

WORLDWIDE MILK PRICES UNCHANGED

Up to 2007, milk prices within the European Union and the world market were vastly different. This changed when the EU adapted its dairy policy to the liberalisation of global trade. Since then, price levels for dairy worldwide have been more or less equal.



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