



**TOGETHER WE MAKE  
LIFE BETTER**





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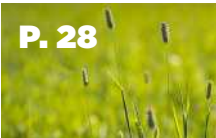
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FINLAND'S  
MOST  
SUSTAINABLE  
BRAND FOR THE  
SEVENTH TIME



The people taking part in the Sustainable Brand Index survey consider the Finnish origin of Valio's products, its animal welfare and environmentally sustainable packaging as important.

This Sustainability Report describes Valio's activities in 2019 and early 2020. It covers operations in Finland and, in part, in other countries. We are in a transition phase and will extend the scope of the report in the future. The figures in parentheses are from 2018.

# CEO'S GREETINGS

In 2019, we continued our efforts to improve the wellbeing of the environment, animals and people. Valio's exports strengthened, net sales increased moderately, and profitability started to improve.

Valio had a good year from the perspective of business operations. Net sales grew by about three percent to EUR 1,787 million. Many of our new products corresponded with current trends: PROfeel® puddings for the snack trend, Valio Oddlygood® for the demand for plant-based products, and Valio Eila™ NUTRI F+ milk powder for the nutritional needs of older people. We also introduced free-range milk from freestall farms.

Net sales in Finland rose by half a percent. The growth stemmed especially from snack products and plant-based products. In the traditional categories, milks continued to decline in line with the market trend. We recognise the challenges of climate change and are actively pursuing solutions. We are investing in the Carbon-neutral milk 2035 target, so that people can enjoy dairy products with a good conscience also in the future. At the same time, we are also

developing new plant-based products. Both are needed.

Valio is a company owned by 4,700 Finnish milk producers, and we pay our operating profit to the dairy farms through the cooperatives. Financial success is measured with a milk margin and a milk return. The milk margin amounted to EUR 838 million (800 million), and the milk return was 41.2 cents per litre (38.4 c/l). Improving business profitability thus advanced as planned. The milk price we paid remained higher than the average EU price.

International net sales grew by seven percent to EUR 715 million (669 million). We see potential especially in special ingredients for the food industry, which we call value-added powders. They have attributes that give our industrial customers different advantages: a bakery or confectioner can reduce sugar, or a maker

of energy snacks can add protein to their products. [» Read more about the outlook for 2020 in the Board of Directors' Report](#)

## OUR CLIMATE WORK PROGRESSED

In 2019, climate change was routinely covered in the news. We continued our efforts to find new emissions-reducing solutions in our milk chain. Together with the Baltic Sea Action Group, we trained 170 dairy farm entrepreneurs to become carbon farmers, we started using recycled plastic in our packaging, we developed a carbon footprint calculator, and we committed to setting scientifically assessed climate targets in line with the Paris Agreement.

The focus of our work is on reducing emissions, not offsetting them. Our



biggest challenges are related to recycling manure as fuel and decreasing emissions from peatlands drained from wetlands. We are working with our partners to explore solutions to these challenges. We are gaining ground, but nothing sustainable is created overnight.

Climate change impacts the everyday life of people and food production conditions: some regions suffer from drought, some from flooding. Thinking in terms of a sustainable division of labour in food production, Finland is an opportune country for milk production. In Finland, the most important nutrition for cows is grass; they don't eat soy at all. Plus, Finland's water resources are more abundant than in many other countries.

### **IMPROVING ANIMAL WELFARE**

We are proud of the work done over the years at dairy farms to improve animal welfare. In 2019, about 95 percent of the milk was from farms that receive a sustainability bonus. Preventive animal healthcare, like regular healthcare visits by a veterinarian, is one of the prerequisites for the bonus. By the end of 2020, all dairy farms must commit to the sustainability bonus requirements.

There are a lot of farms, so the changes will take time. However, the advantage of being a major player is that we can advance issues that improve animal welfare on a wide front. There will be room for development also in the future. For example, grazing is something we want to see more of. In modern freestall barns, cows move about freely every day, but not all farms have the opportunity for cows to be outdoors. In order to increase grazing, we encourage farms to take the issue into consideration already in the freestall planning phase.

### **FINLAND'S MOST SUSTAINABLE BRAND FOR THE 7TH TIME**

Finns ranked Valio as Finland's most sustainable brand for the seventh time in the Sustainable Brand Index survey. People consider the Finnish origin of Valio's products, animal welfare and sustainable packaging as especially important.

We receive the recognition humbly, and we will continue the work to improve the wellbeing of the environment, animals and people. We believe there is a place for sustainably produced Finnish dairy products also in the future.

### **IN EXCEPTIONAL SITUATIONS, OUR RESPONSIBILITY IS EMPHASISED**

The globally exceptional situation caused by the coronavirus has shown that taking care of food security and sustainability are more important in the 2020s than perhaps ever before. Our task is to ensure that people get food in all situations.

In Finland, the food supply functions also in exceptional circumstances. I want to thank people for choosing domestic when shopping, also in ordinary times. Together we ensure that local food production continues: fields are cultivated, producer expertise remains high, and factories continue operating.

*We also extend our thanks to all Valio employees, dairy farms, customers, and partners for the good collaboration and the solution-oriented, forward-looking spirit! We can be proud of the Finnish food chain.*



**Annikka Hurme**  
CEO

# WHAT IS SUSTAINABILITY AT VALIO?

Food consumption and food production have globally significant impacts on the environment, society, animals, and people's lives.

We produce healthy food to fuel everyday life, and we bring people together. In doing so, we create jobs for thousands. Food production is based on the resources nature gives us. We are aware of our environmental and climate impacts, and it is our responsibility to reduce them. At the same time, we are determined to improve animal welfare. We are part of the solution to sustainability challenges.











## SUSTAINABILITY TARGETS 2019

THEME	TARGET	PROGRESS IN 2019
<b>COOPERATIVE FOUNDATION</b>	A producer price that is at the level of the best cooperative dairies in Europe.	<b>Target achieved:</b> The milk price paid by Valio to cooperatives has been higher than the EU average throughout the 2000s.
<b>ANIMAL WELFARE</b>	All Valio dairy farms included in the new Quality and Production Guidelines by 2020 (part of the bovine health register Naseva, preventive healthcare).	<p><b>Progress towards target:</b> At the end of 2019, 83% of farms were included, i.e. about 94% of the total milk volume.</p> <p>The sustainability bonus was increased in July from 1 cent to 2 cents per milk litre.</p>
<b>SUSTAINABLE MILK PRODUCTION AND A CIRCULAR ECONOMY</b>	<p>Valio cows and young cattle are not fed any soy after February 2019.</p> <p>Improve energy efficiency in Valio's own operations by 7.5% by 2025 from the 2015 energy consumption figures.</p>	<p><b>Target achieved:</b> Soy use was banned in 2018 and soy is no longer used at Valio's farms.</p> <p><b>Progress towards target:</b> So far, the combined impact of the energy efficiency measures amount to about 3.2% of 2015's energy consumption. We will achieve the target if we are able to continue at the same pace.</p>
<b>TRANSPARENT PROCUREMENT</b>	<p>Finnish milk is the cleanest in the EU and is collected from Valio's owner-entrepreneur farms. Milk can be traced to a specific farm, in case of a defect.</p> <p>In 2020 the domestic content of our procurements in Finland, including raw milk material, is over 90%.</p>	<p><b>Target achieved:</b> There are no trace pharmaceuticals in Valio's milk, which is among the cleanest in the EU in terms of somatic cell and bacterial counts. In 2019, 97.6% of our milk was rated in the highest class, E (96.9).</p> <p><b>Target achieved:</b> The domestic content of our procurements in Finland, including raw milk material, is over 90%.</p>
<b>INNOVATIONS TO PROMOTE HEALTH AND WELLBEING</b>	<p>We will double the number of Valio products that are unflavoured, sugar-free, and contain 20-50% less sugar from 2015 figures (84 products) by 2020 (168 products).</p> <p>We will sell 7 million kilos of Valio ValSa® low-salt products in 2020.</p>	<p><b>Target nearly achieved:</b> The number of snack products that are unflavoured, sugar-free or contain 20-50% less sugar was 157 in 2019 (136).</p> <p>In 2019, we sold about 6.8 million kilos of Valio ValSa® products (6.85).</p>

# FOCUS AREAS OF VALIO'S SUSTAINABLE BUSINESS

We have identified the topics that are especially important to Valio's stakeholders and through which we create wellbeing for society. We also pursue business benefits from these areas.

We want to be a frontrunner in promoting wellbeing and sustainable lifestyles, in climate work, and in securing nature's vitality. In 2020, we will set targets related to these areas.





# THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS FOR 2016–2030

aim at eliminating poverty and improving wellbeing with the environment in mind.

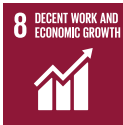
## VALIO’S SUSTAINABILITY ACTS ARE ESPECIALLY LINKED TO THESE EIGHT TARGETS



Use of grasslands and milk production are necessary to feed growing population, food security



Healthy products that promote wellbeing



All profit to the milk producers



Promotion of equality and preventing discrimination



Energy efficiency, resource efficiency, food waste reduction, circular economy, packaging



Work towards carbon-neutral milk (e.g. carbon farming, reducing fossil fuels in production and logistics)



Circular economy in primary production, reducing effect on water system (COD)



Animal welfare, promoting biodiversity at dairy farms





## OPERATING ENVIRONMENT AND TRENDS

Valio's roots are in Finland, and our products are exported to about 60 countries around the world. Changes in our operating environment impact the choices consumers make and the operations of our industrial customers. At the same time, changes create new opportunities – and risks – for Valio's business.

### CLIMATE CHANGE



Climate change affects food production opportunities in different countries and also national economies and migration flows. The popularity of plant-based foods and the criticism of animal-based foods are both a risk and an opportunity: we are decreasing our carbon footprint and developing plant-based products.

### CHALLENGING MILK MARKETS



The situation in the milk markets remains challenging, and market disruptions reflect on prices. As the population grows, both milk production and consumption will grow globally. Extreme weather phenomena have at times also slowed milk production.

### A GROWING MIDDLE CLASS



Purchasing power in developing countries is growing. For example, in Asia dairy products will become part of the diet of more and more people. The coronavirus pandemic, however, is weakening the global economic outlook, and purchasing power is diminishing. Food production and demand are not in balance geographically.

### UNPREDICTABLE, BIG CHANGES



Pandemics, trade wars and animal diseases are examples of these. The coronavirus pandemic-induced weakening of the global economy, the restrictions on movement, the difficulties of restaurants and hotels, and the changes in everyday purchases are impacting our business in all markets. Food safety, origin and self-sufficiency are emphasised.

### DIGITALISATION & INDIVIDUALITY



Digitalisation is changing consumer behaviour in many ways: the importance of transparency and traceability is increasing, and more is expected in terms of individualised products and the customer experience. People and companies want customised products, services and solutions.

### INFORMATION OVERLOAD



Information is available anywhere and anytime. However, there is contradicting information about food, nutrition and sustainable production, making consumers hesitant in their choices. Many people trust social media. However, valuing expertise and information has increased with the coronavirus pandemic.

## What impact do trends have on eating?

Our annual consumer trends analysis gives us a comprehensive understanding of the things that impact food and eating. We develop products and services to meet people's changing hopes, needs and emotions.

[See the Trendmap 2020 >>>](#)

# STRATEGY

**4,700 Finnish dairy farms own Valio through cooperatives. We buy the milk we use in Finland from our owners, and we pay all our operating profits to them.**

We aim to pay dairy farms a producer price that is at the level of the best cooperative dairies in Europe. We exceeded the EU average producer price throughout the 2000s.

## VALIO'S FOUNDATIONS



Valio's core competence is the ability to create and commercialise innovations for different consumer needs through close collaboration between functions. We utilise the tight collaboration between research and product development, consumer and customer insight, and production.

Our strategic objectives are: best customer experience, most-liked brands, and most-preferred products. Responsibility in everything we do is one of the keys to success.





# OWNED BY FINNISH DAIRY FARMS

Finnish milk producers own Valio.

We pay all of our operating profit to them through the regional cooperatives. When you select a Valio product, you can be sure that all the money goes to producers.





## MILK PRODUCERS OWN VALIO

In Finland, we source milk from our owners; in Estonia and Russia, we make products from local milk according to strict quality requirements. [Read more >>>](#)

Valio has 4,700 dairy farmers that own the company through 14 cooperatives. The number of dairy farms decreased in 2019 by eight percent. However, the milk volume remained at the previous years' level of 1.8 billion litres, because the average farm size is growing. In 2019, dairy farms had 43 cows (39), on average. In Finland, milk is produced on relatively small farms: in Sweden, for example, there is an average of 92 cows per farm, in Denmark 216, and in Holland 102.

(Source: ProAgria Output monitoring results 2019).

## WE CREATE JOBS AND LIVELIHOODS FROM SOUTHERN FINLAND TO THE ARCTIC CIRCLE

Milk production is the only form of agriculture that is possible everywhere in Finland – even where the natural conditions and fields are not suited for growing food crops.

Milk generated roughly 60 percent of Finland's agricultural entrepreneurial income\*

## HOW IS THE MILK PRODUCER PRICE DETERMINED?

Valio's Board members are, in fact, dairy farm entrepreneurs. They assess how much Valio can afford to pay the co-operatives for the milk. The milk price depends on how well Valio's various products, from yoghurt to cheese, are selling and on how profitable sales have been. The cooperatives pay the producer price to the farms.

[Read more >>>](#)

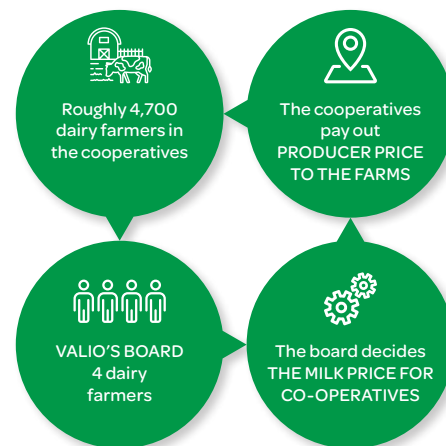


in 2019. In Kainuu and Lapland, where other farming is difficult due to the natural conditions, milk and beef from dairy farms bring about 80 percent of agricultural sales income\*\*.

\*Entrepreneurial income includes agricultural subsidies.

\*\*Sales income includes product sales income, excluding subsidies.

*Valio generated about one billion euros for society in 2019.*



*In 2019, the average price Valio paid for milk was 39.9 cents per litre.*

[Read more >>>](#)



A VARIETY OF SERVICES  
FOR FARMS

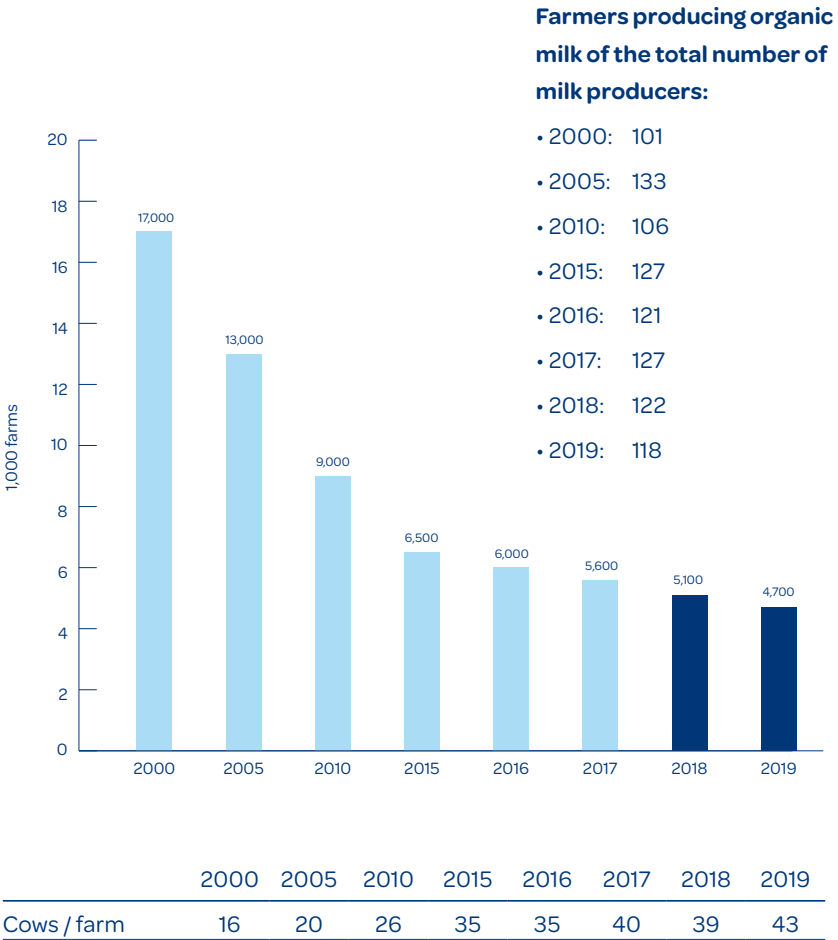
Working at a dairy farm requires a variety of expertise and good physical condition. The farmer’s work includes growing grass for the cows to eat, taking care of animal welfare, ensuring milk quality, handling company finances as well as developing the farm.

Valio’s primary production services offer the farms advice and training related to issues like milk quality, animal health and farm development.

*In 2019 co-operatives and Valio held 216 trainings.*

Under an agreement signed by the health care company Mehiläinen and Valio in 2019, Valio dairy farm entrepreneurs have easy access to Mehiläinen’s occupational health care network. The annual leave entitlement for agricultural entrepreneurs is 26 days per year. Municipalities handle the dairy farmer relief services.

NUMBER OF DAIRY FARMERS IN FINLAND  
AND AVERAGE FARM SIZE (YEAR END)



## DAIRY FARMERS ARE MEMBERS OF COOPERATIVES THAT IN TURN OWN VALIO



Roughly 4,700 dairy farmers in the cooperatives



The cooperatives pay out **PRODUCER PRICE** TO THE FARMS



**VALIO'S BOARD**  
4 dairy farmers



The board decides **THE MILK PRICE** FOR CO-OPERATIVES

**80%**  
of Finland's milk

**1,800**  
million litres of milk per year

Valio Group procurement cooperatives

1. Evijärvi
2. Maitosuomi
3. Länsi-Maito
4. Tuottajain Maito
5. Pohjolan Maito

Total 14 cooperatives owners, including competitors



# COWS AMONG THE HEALTHIEST IN THE WORLD

Animal welfare is the foundation of our operations.

Valio is a company owned by milk producers;  
taking care of the animals is daily work for them.





## HOW IS ANIMAL WELFARE MONITORED?

We can't ask a cow directly about its experience, so animal welfare is considered to be shaped by four areas:

- 1) good conditions
- 2) proper feeding
- 3) health
- 4) opportunity for species-appropriate behaviour

## THE SHARE OF FARMS RECEIVING THE SUSTAINABILITY BONUS INCREASED

About 94 percent of milk used by Valio in 2019 came from farms that received the

sustainability bonus. With the sustainability bonus we encourage dairy farms to improve animal welfare through voluntary measures. In July the amount of the sustainability bonus increased from 1 cent to two cents per milk litre. Our goal is that all dairy farms will participate by the end of 2020.

## REQUIREMENTS FOR THE SUSTAINABILITY BONUS:

- The farm is included in Naseva, and a veterinarian visits the farm to check animal health at least once per year
- Regular hoof health tracking and treatment

- Anaesthetics, pain relief and sedation during disbudding, i.e. removal of a calf's horn buds
- New barns must be built as freestalls, which allow the cows to move about as they please
- No soy or GMO in feed

## NO ANTIBIOTIC RESIDUES

In Finland, cows are not given antibiotics as a preventive measure. If an animal gets sick, it will receive treatment. A veterinarian examines the cow and prescribes medication. When we use medicines only for a diagnosed need, we prevent the

## KEY FIGURES ON COW EXERCISE AND GRAZING IN 2019:

- *Close to half of the barns are freestall barns. Since freestall barns are usually bigger than stanchion barns, more than 2/3 of the cows live in freestall barns.*
- *Fewer than one third of the cows live in stanchion barns. All cows in stanchion barns graze during summers.*
- *Grazing occurs at 72 percent of all Valio farms. 78 percent have grazing land or exercise yards. In order to increase grazing at freestall barns, we advise farms to take the possibility to graze into consideration already in the barn planning phase.*

increase of antibiotic-resistant bacteria strains.

We verify milk purity by testing for trace antibiotics. The milk is tested three times: first at the farm, then at the dairy before the milk is unloaded and, finally, before the milk is moved to production.

### **COWS MOVE FREELY IN FREESTALL BARN**

In a freestall barn, cows can choose where they want to rest and can move about freely year-round. A feeding table runs through the middle of the barn and the animals are free to eat at their own leisure. Milking is done at separate milking stations or by an automatic milking system. In 2019, we started selling milk from free-range cows.

In order to increase grazing at freestall barns, we advise farms to take into consideration the possibility to graze and get exercise when they are planning a new barn.

### **FEWER STANCHION BARN**

In a conventional stanchion barn, each cow eats, drinks and rests in its own stall, and it is also milked there. Feed is brought

Valio's requirement:

## **ALL NEW BARN ARE TO BE FREESTALL**



to the cow, and drinking water is provided next to them. It is important in cattle care that stanchions are big enough, and the laying down area is cushioned with a stall bed and a sufficient amount of litter. In summer, cows that are housed in a stanchion barn are allowed to graze or move about outdoors for at least 60 days. At many farms, the cows spend time outdoors also in the winter.

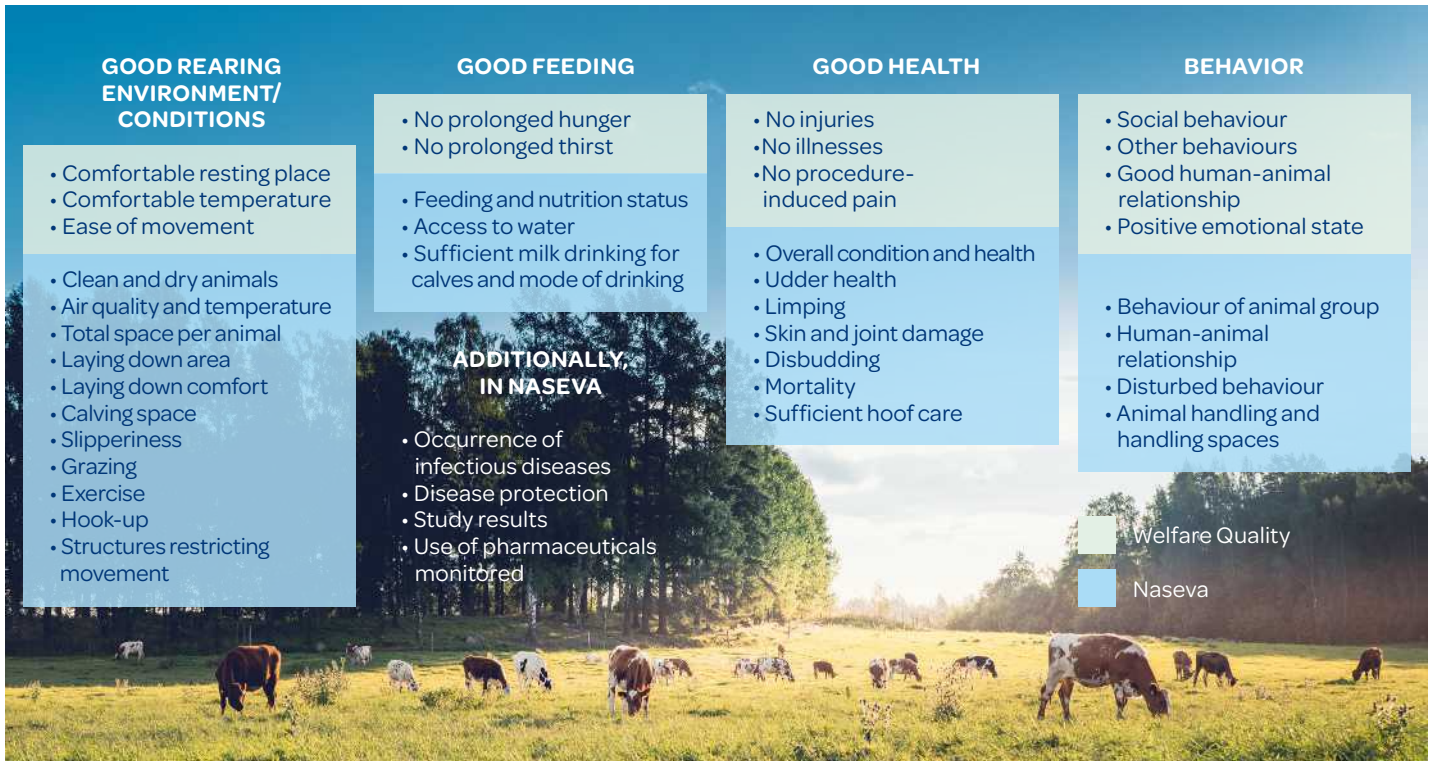
Stanchion barns are gradually being phased out, as most of the dairy farms that are closing – particularly the smaller farms – have stanchion barns. This phasing out is being accelerated by Valio's requirement that all new barns are to be freestall.

### **IN SEARCH OF NEW WEANING METHODS**

Calves are weaned from their mothers so that we can begin milking the cow and the calf can have a safe environment.

Freestall barns have calving pens to which the soon-to-be-calving cows are moved. At first, calves are often kept in individual pens so they learn to drink from a nursing bucket. The calves are then moved in with other calves of the same age.

## HOW IS ANIMAL WELFARE ASSESSED?



### Funded by the EU, the Welfare Quality® (WQ®) programme

has developed methods to assess the welfare of cattle, pigs and poultry.

Welfare is assessed from the perspectives of the rearing environment, health, feeding and behaviour.

**In Finland, the bovine health register Naseva** is used to monitor and assess welfare from the same starting points. Naseva also collects information about the occurrence of infectious diseases, disease protection and research results, and monitors the use of pharmaceuticals.

One condition for the Valio sustainability bonus is that the farm is included in Naseva.

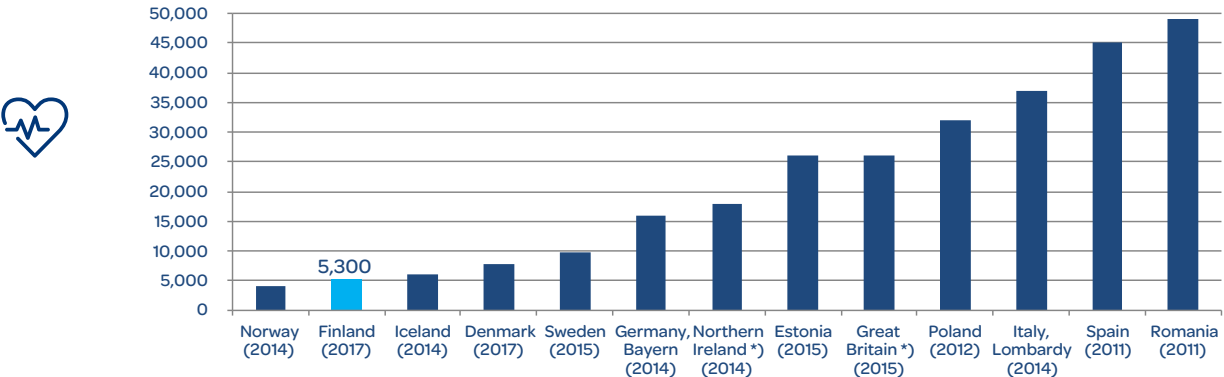


# VALIO'S MILK IS AMONG THE CLEANEST IN THE WORLD

We use a significantly lower amount of antibiotics in comparison to many EU countries.

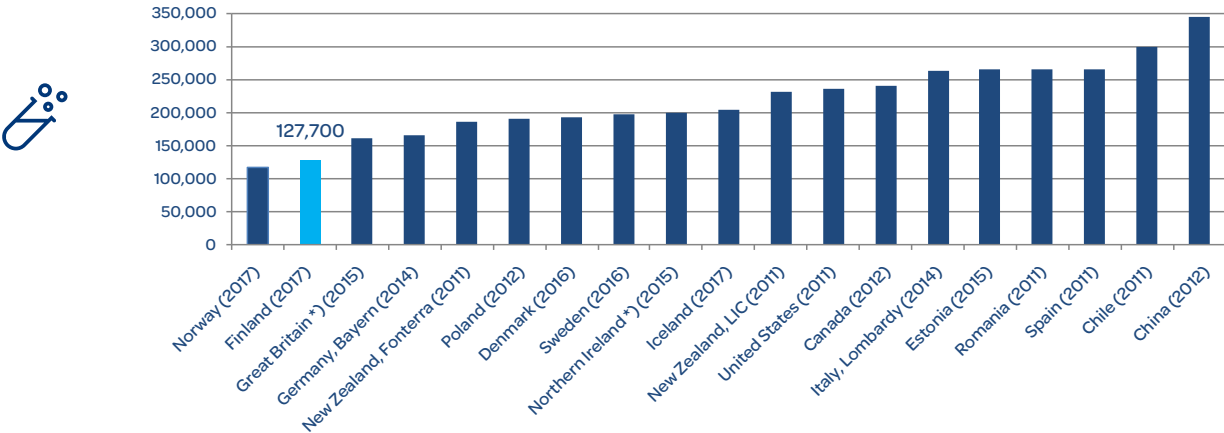
## LOW BACTERIAL CONTENT IN MILK SPEAKS TO GOOD MILKING HYGIENE AND MILK PROCESSING.

Bacteria count in raw milk (geometric avg, \*arithmetic avg)



## CELL COUNTS IN THE MILK INDICATE UDDER HEALTH. THE COUNTS RISE WHEN THERE IS AN UDDER INFECTION.

Somatic cell count in raw milk (geometric avg, \*arithmetic avg)



Source: Many sources, e.g. MSM (Nordiske Meieriorganisasjoners Samarbeidsutvalg for Mjölke kvalitetsarbeid) and National Mastitis Council, 52nd Annual Meeting Presentations

## FROM HEALTHY CALVES TO CLIMATE-WISE COWS



*The aim of the Climate-wise Cow project, launched in 2019, is to improve the health and welfare of calves and cows.*

*Climate-wise Calf workshops are convened and headed by Valio's veterinarian and cooperative advisors. The meetings discuss issues related to the health and growth of calves. Individual farms test out new ways to improve calf health, and the results of the work of others are also reviewed.*

*The goal is for Climate-wise Calves to grow into Climate-wise Cows that are healthy, good milk producers, and have as few illnesses and medications as possible.*

*The work connects to the environmental impacts of milk production: the better the cow's health and the longer the cow lives, the less greenhouse gas methane generated per litre of milk produced.*

In modern freestall barns cows move about freely. That's why calf safety among adult cows cannot be adequately ensured. Living in the same space with adult animals puts calves at risk of disease because their immunity is weak in the beginning.

In 2019, we surveyed the alternative ways calves are weaned at Valio's dairy farms and how common the methods are. We encourage trying out new methods. Some

farms are already using a method in which the calf is cared for by its own mother or by a suckling cow, which cares for one or more suckling calves in the group pen. This allows the calves to suckle as naturally as possible.

### **PAIN RELIEF FOR DISBUDDING**

Calves are disbudded for safety reasons: other animals and their keepers are safer in

freestall barns when the animals don't have horns. Disbudding a calf is a less harmful procedure to the animal than de-horning an adult animal.

One condition of the Valio sustainability bonus is that if a calf is disbudded, i.e. its horn buds are removed, it must be given sedation, an anaesthetic and pain relief. Pain medication must be given to the calf also after the procedure. This way, the calf

has as little stress as possible and has good pain relief during and after the procedure.

### **FARM SUPPORT AND MONITORING**

Supporting dairy farmers in their work are Valio's own veterinarian and roughly 20 advisors that work for the cooperatives, as well as a laboratory service that produces data on feed nutrient content and milk purity. Valio and its cooperatives also arrange a variety of training courses. In addition, Valio is involved in research and development work that aims for better animal health and welfare.

Sometimes animal care can be jeopardised, e.g. due to a farmer's illness. We have trained the milk truck drivers to take note of problems at a farm and to immediately relay the need for help to the local cooperative. An expert from the local cooperative will visit a farm also if the milk quality drops or there is a disruption in its production.

Our goal is to audit 20% of our farms per year. Advisors from the cooperatives perform the audits. An audit ensures that the farm's milk production process aligns with Valio's approach, and it looks at how milk quality, animal welfare, feeding

**94%  
OF MILK  
SOURCED  
FROM FARMS  
RECEIVING  
A SUSTAIN-  
ABILITY  
BONUS**



and general cleanliness are managed at the farm. If a shortcoming is found, the cooperative gives the producer guidance to remedy the issue. In the most serious cases, milk collection is suspended until the issue is in order. In addition, other development and assistance visits take place at the farms. We are also developing our collaboration with healthcare and supervisory veterinarians.

### **MILK QUALITY AT ITS BEST**

In 2019, the share of the best (E-rated) milk further increased and was 97.6 percent (96.90). Like last year, only 0.01 percent of the milk fell in the weakest quality rating, 2. The milk producer monitors milk quality for each cow.

Collection drivers inspect the milk's temperature, smell and appearance, and take samples of the milk. Only milk that meets the requirements can be pumped into the vehicle's tank. Farm-specific samples are analysed for composition and bacterial count, among other things.

*Drivers test the milk for microbial traces of pharmaceuticals before it is delivered to the production plant's silo.*







# TOWARDS CARBON-NEUTRAL DAIRY 2035

Sustainable milk production  
and a circular economy

We know the environmental impacts of milk production, and it is our responsibility to actively reduce them. Our goal is to cut milk's carbon footprint in Finland to zero by 2035. Carbon-neutral dairy means that at least the same amount of emissions is reduced and removed from the atmosphere as is generated on the dairy farm, in transportation, at the plant, in the manufacturing of packaging, and elsewhere along milk's journey. Our work focuses on reducing reduce emissions, not offsetting them.

TOWARDS  
**CARBON-  
NEUTRAL**  
*dairy* 2035

While it is an ambitious goal, it is reachable through collaboration between Valio and its dairy farms, agriculture, energy sector companies and research institutes.

#### **COWS IN FINLAND EAT GRASS**

Valio's milk production in Finland differs from that of most other countries in that our cows eat no soy at all as a source of

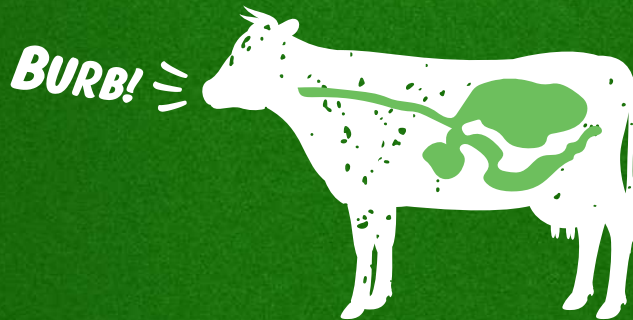
protein; instead their diet consists primarily of grass. It is supplemented with Finnish grains and with side fractions from rapeseed and canola. Grass feeding is also a climate choice because perennial grasses sequester carbon more effectively than annual plants ([Natural Resources Institute Finland Luke](#)). In Finland, the environmental impact is reduced also by the fact that more than 80 percent of Finnish beef is a secondary product of milk production.

#### **MILK'S CARBON FOOTPRINT FROM THE FIELD TO THE GROCERY STORE**

Milk's most significant greenhouse emissions are methane, generated in the cow's rumen and in manure storage (45–50%), nitrous oxide formed in the fields during feed production (25–35%), and carbon dioxide formed in various stages of the chain in energy production (15–20%).

[Read more >>>](#)

## **WE HAVE HALVED THE MILKING COWS' METHANE EMISSIONS IN 50 YEARS**



Year 1965

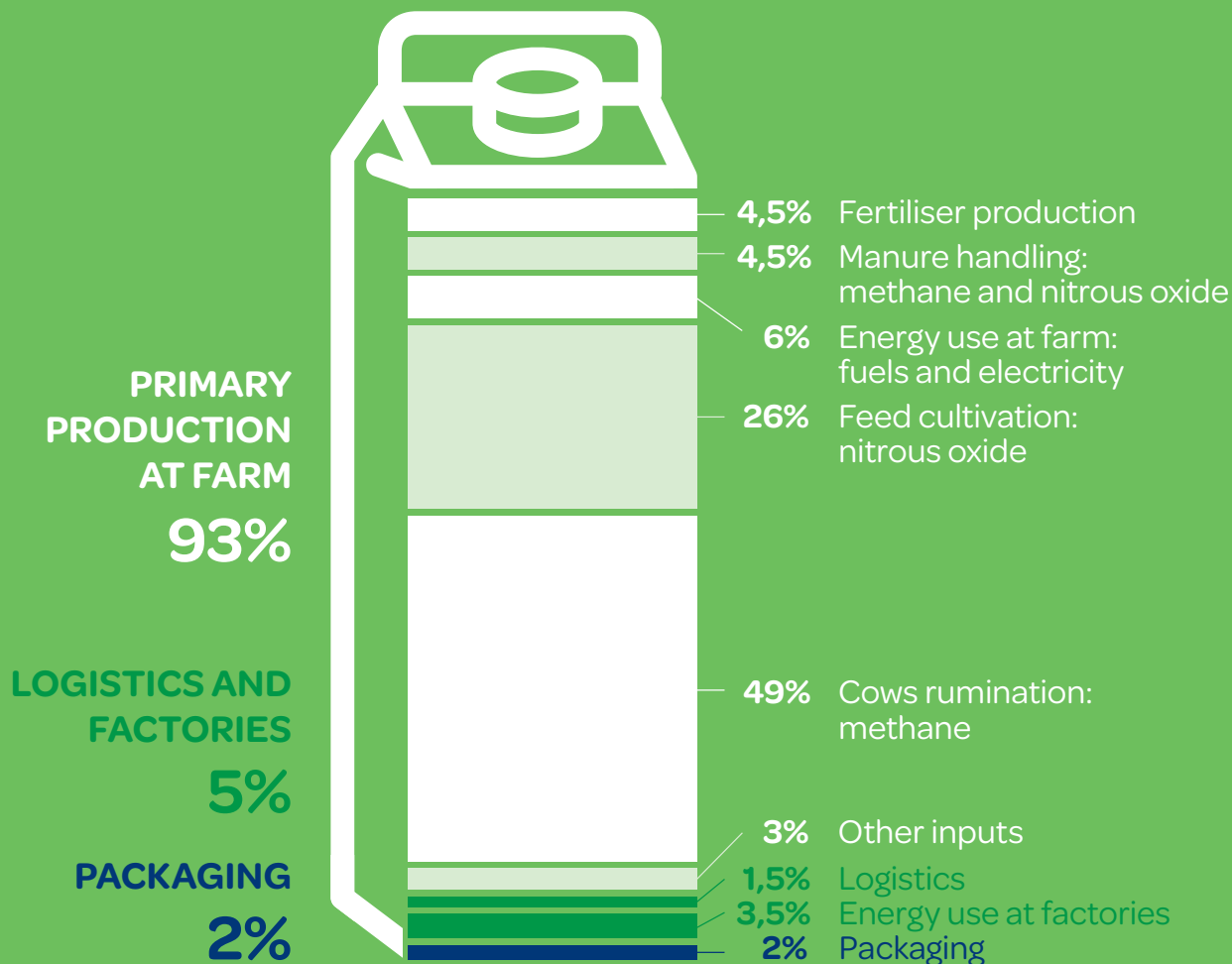
> - 50% >

Year 2019

*Finnish milk producers have been doing environmental work for a long time. The amount of methane per litre of milk has been reduced by half in 50 years through improvements in animal productivity, health, and nutrition.*



## THE CARBON FOOTPRINT OF MILK, FROM FIELD TO TABLE



In calculating the carbon footprint, the different greenhouse gases are converted to a common format. The Carbon Trust organisation, which specialises in climate matters, certified Valio's calculation model in 2019.

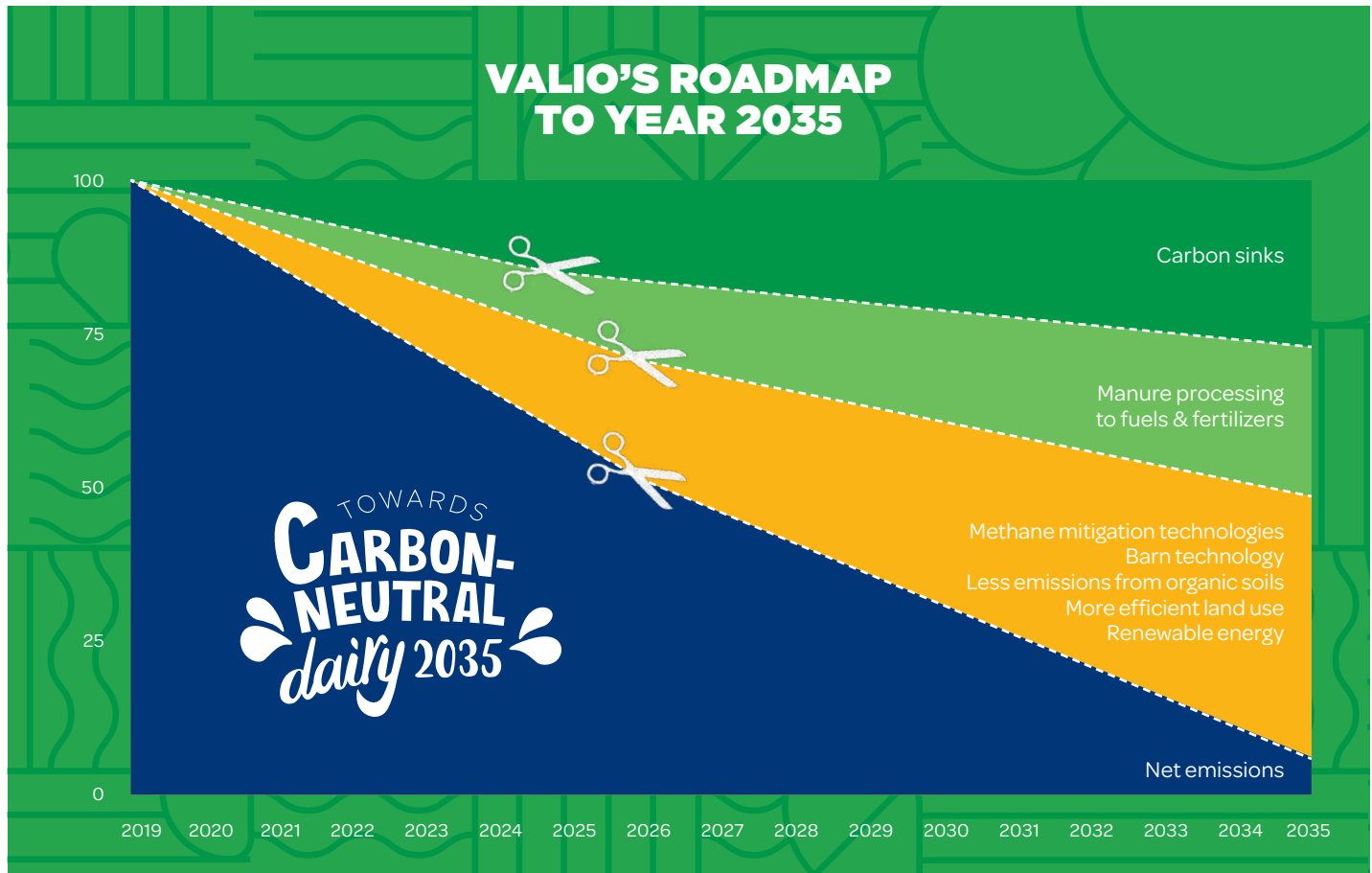
## VALIO'S CLIMATE WORK ROADMAP

We will move towards our 2035 goal along three routes in particular: We bind more carbon dioxide into grass fields than now,

we use manure to produce biogas, which is a replacement for fossil fuels in transportation, and we reduce emissions from peatlands drained from wetlands. Towards the end of the chain, the climate impacts are reduced through energy-efficiency

improvements at plants, optimised transport routes, eco-friendly packaging, and reduced waste in production, at the store and in the consumer's home.

[Read more >>>](#)



*In 2020, we will set Science Based Targets for our climate work; the targets will be based on the Paris climate agreement. We will report on the progress we make in reaching the targets in upcoming years. [Read more >>>](#)*

## CLIMATE WORK AT DAIRY FARMS

Most important activities in 2019:

1

**RESEARCH ON CARBON BINDING IN FIELDS**



In the Valio headed CARBO® project we are working with high-end research groups and other grass chain experts. Participants include the Finnish Meteorological Institute, the Natural Resources Institute Luke, the University of Eastern Finland, Yara, known for its fertiliser solutions, and Atria Tuottajat. Research and development projects are focusing especially on carbon-binding grass and efficient pasture cultivation.

2

**WE STARTED CARBON FARMER TRAININGS**



Photosynthesis feeds carbon into the soil; then, depending on the soil's condition, the carbon either returns to circulation or is stored in the soil. Farmers can improve carbon sequestration with crop rotation, improving species diversity, and keeping their fields green year round. Together with the Baltic Sea Action Group, in spring 2019 we started training dairy farm entrepreneurs to become carbon farmers. By early 2020, 250 farms, i.e. about 5 percent of all farms, had participated in the training. Our goal is to train all dairy farms to become carbon farmers.

3

**VALIO CARBO® FARM CALCULATOR**




For monitoring and reducing the carbon footprint of dairy farms.

We developed an environmental calculator tailored to Finnish dairy farms. Development of the user interface is ongoing, and the calculator will be taken into use during 2020. Our goal is to reduce carbon emissions at farms by 30 percent in five years. The Carbon Trust organisation specialising in climate issues has certified our calculation model.

4

**TURNING FARM MANURE INTO ENERGY**



In April 2019, we signed a letter of intent with the energy company Gasum to investigate the technical and financial requirements for producing liquid traffic fuel from manure. Some Valio dairy farms already have their own biogas plants. At the beginning of 2020, there were about 15 of them. At the ProManure hackathon in February, teams of experts brainstormed concrete solutions to bring manure within the sphere of processing. The piloting of the most promising solutions is under way.



5

### PEATLAND EMISSIONS: HACKATHON AND FARM PILOTS



In December, we arranged a hackathon to explore solutions that farms could use to reduce greenhouse gas emissions from peatlands. The winning team from the University of Eastern Finland and the Natural Resources Institute Finland presented a toolbox of actions to reduce emissions. The ideas will be piloted at dairy farms in the summers ahead.

6

### PROMOTING BIODIVERSITY AT DAIRY FARMS



We are helping dairy farms take concrete steps to increase biodiversity. In summer we monitored indicator species in agricultural environments with the Natural History Museum: 11 producers from around Finland observed the plant, bird, and insect species on their own farms. There were a total of 40 species observations. In addition, we surveyed valuable natural locations at 12 dairy farms with landscape experts from the Rural Women's Advisory Organisation. In 2020, an additional 30 surveys will be performed. The species observations will also continue.

7

### CARBO GRASS SEED MIX TO IMPROVE CARBON BINDING OF GRASSLAND



Launched in February 2020, the Valio CARBO® grass seed mix – developed by Valio and the cooperatives – supports carbon binding to the soil. The mix includes clover, which helps pollinators, and grass species that are more resistant to changing weather conditions and improve the soil structure.

TOGETHER  
WE CULTIVATE A  
*post  
carbon*  
WORLD

[Read more >>>](#)



## **NEW METHODS NEEDED FOR REDUCING PEATLAND EMISSIONS**

*The biggest challenge in cutting milk's carbon footprint to zero is related to peatlands created from drained wetlands or peatland forests. These account for about 10 percent of Finland's arable land, but they produce about half of agricultural environmental emissions. Emissions must be reduced significantly in order for us to achieve our carbon-neutral milk target.*

*Drainage, tillage, liming, and fertilising, accelerates peat's disintegration. The disintegration of the peat releases carbon dioxide to the atmosphere. Most of the fields used in milk production are grass-covered year-round, which mitigates the climate impacts of land use compared to, e.g., the cultivation of spring grains ([Natural Resources Institute Luke](#)).*

*In 2019, we actively sought out research data on peatland farming. We arranged an expert seminar and a hackathon. In the upcoming summers, peatland greenhouse gases will be measured and climate-smart farming methods will be tested on dairy farms.*

*The most effective ways to reduce emissions are by avoiding the clearing of new peat fields and stopping farming activities on the poorest-condition fields. This can be achieved by improving the grass harvest on mineral soil fields. Other ways include adjustable subsurface drainage, keeping fields covered in vegetation year-round, and lightening and avoiding land tillage. We also need new financial incentives in Finland to restore wetlands or, e.g., to promote wetland farming.*





TOWARDS  
**CARBON-  
NEUTRAL**  
daily 2035



# RESOURCE-EFFICIENT PRODUCTION PLANTS

The most significant environmental impacts of Valio's plants are a result of their use of energy and water. Our production process also generates a wastewater load. We are reducing the environmental impacts by using best available technology and the efficient use of raw materials and energy.

In this section we review energy efficiency measures and fuel use. You can read about water use, waste and chemicals at the end of the report.

**Read more >>>**

ONWARDS  
**CARBON-NEUTRAL**  
*daily 2035*

## ENERGY EFFICIENCY

Our goal, consistent with the Finnish food industry's energy efficiency agreement started in 2017 and ending in 2025, is to improve energy efficiency in Valio's own operations by 7.5 percent from the 2015 level. So far, the combined impact of the energy efficiency actions accounts for about 3.2% of our 2015 energy consumption, i.e. an annual energy savings totalling 22.9 GWh. We will reach our goal, if we can keep up the pace.

### ENERGY EFFICIENCY ACTIONS IN 2019

- Improving heat recovery networks
- Ventilation adjustments
- Optimising plant process washes
- Optimising cold facility and ice water silo usage

### ENERGY CONSUMPTION BY SOURCE IN FINLAND

	Unit	2015	2016	2017	2018	2019
Consumption of electric energy	GWh	238	237	225	239	235
Consumption of heat	GWh	508	505	485	499	489
Peat	%	33	37	42	36	28
Heavy fuel oil	%	12	12	4	0	0
Natural and liquid gas	%	14	13	10	12	11
Renewable fuels	%	36	34	40	47	55
Domestic fuels	%	69	72	81	83	83
Consumption of energy altogether	GWh	746	741	710	738	724

## FUEL AND EMISSIONS

Dairies need electricity to run equipment and for cooling. Heat is needed in drying milk powders, in heat-treating fresh products, in washing, and in facility heating. The quality and volume of emissions depends on the fuel used.

Our goal is that the renewable energy share of the electricity and heat used at our production facilities in Finland increases from approx. 24 percent in 2016 to over 70 percent by 2025.

The share of renewable fuels used for heat production in Finland was 55 percent (44). The share of domestic fuels was 83 percent (83). Starting from the beginning of 2020, about 20 percent of our electricity procurement is wind power.

Direct and indirect greenhouse gas emissions as well as other significant air emissions are available in the section Environmental information.

[Read more >>>](#)

### ENERGY CONSUMPTION AT VALIO'S PRODUCTION PLANTS, 2019 (MWH/A)

	FINLAND	ESTONIA	RUSSIA	TOTAL
Electricity (renewable)	0	0	0	0
Electricity (non-renewable)	232,902	17,131	5,512	255,545
<b>Electricity (total)</b>	<b>232,902</b>	<b>17,131</b>	<b>5,512</b>	<b>255,545</b>
Heat (renewable)	267,195	0	0	267,195
Heat (non-renewable)	217,996	27,632	7 506	253,134
<b>Heat (total)</b>	<b>485,191</b>	<b>27,637</b>	<b>7 309</b>	<b>520,137</b>
Renewable total	267,195	0	0	267,195
Non-renewable total	450,898	44,763	13,018	508,679
<b>All total</b>	<b>718,093</b>	<b>44,768</b>	<b>12,821</b>	<b>775,682</b>

### ENERGY CONSUMPTION AT VALIO'S PRODUCTION PLANTS, 2019 (TJ/A)

	FINLAND	ESTONIA	RUSSIA	TOTAL
Electricity (renewable)	0	0	0	0
Electricity (non-renewable)	838	62	20	920
<b>Electricity (total)</b>	<b>838</b>	<b>62</b>	<b>20</b>	<b>920</b>
Heat (renewable)	962	0	0	962
Heat (non-renewable)	785	100	27	911
<b>Heat (total)</b>	<b>1,747</b>	<b>100</b>	<b>26</b>	<b>1,873</b>
Renewable total	962	0	0	962
Non-renewable total	1,623	161	47	1,831
<b>All total</b>	<b>2,585</b>	<b>161</b>	<b>46</b>	<b>2,793</b>



# EFFICIENT LOGISTICS MEANS REDUCED EMISSIONS

We optimise our milk collection and product transportation routes, we avoid excess trips and we fully load trucks. An unbroken refrigeration chain ensures tasty and safe food products.

TOWARDS  
**CARBON-  
NEUTRAL**  
*daily* 2035



Milk is collected from the dairy farms in Finland by roughly 70 contractors, with 80 trucks. On average, Valio's trucks were on the road for 20.5 hours per day in 2019. As a result of efficiency improvements, collection truck mileage dropped by nearly 450,000 kilometres compared to 2018. The environmental load of product distribution is reduced also by sharing distribution efforts with other companies. Annually, we distribute over one third of Finland's temperature-controlled food product volume.

#### KEY FIGURES OF LOGISTICS:

- Milk's average trip from farm to dairy, 76 km
- Milk's average trip from dairy to store, 88 km
- Delivery reliability of consumer products to stores, 99%



#### A CONTAINER LOAD OF PRODUCTS EXPORTED EVERY 20 MINUTES

Our products are exported from Finland to roughly 60 countries. In choosing partners, we check EURO emissions rating of their vehicles. In 2019, about 95 percent (95) of our export cargo was shipped as full units.

In maritime transport, the IMO 2020 restrictions took effect in 2020. They require shipping companies to use low-sulphur fuel or take other actions to reduce emissions.

*Our products are exported from Finland to roughly 60 countries.*

## VALIO LUOMU™ ORGANIC MILK RIDES WITH FINLAND'S FIRST BIOGAS-FUELLED MILK TRUCK

*Since the beginning of February 2019, Valio Luomu™ milk transports to the dairy have been powered by liquid biogas, or LBG. The use of biogas can reduce as much as 85% of the greenhouse gases generated during the fuel's life cycle compared to diesel. (Source: Gasum). At the same time, it also saves euros. The truck collects a little under 10 percent of all Valio Luomu™ milk in southern Finland. In 2020, the cooperatives will have two new biogas-powered milk trucks. [Read more >>>](#)*

# ENVIRONMENTALLY SMART PACKAGING

The most important task of packaging is to prevent food waste. Plastic is needed for all food products that have a long shelf life; without it, the product would spoil. That's why packaging is actually a good thing, not a bad thing – especially when it is properly recycled.



TOWARDS  
**CARBON-  
NEUTRAL**  
*daily 2035*

All Valio packaging is 100 percent recyclable. In transporting milk, yoghurt and other products, we use recyclable plastic milk boxes, dollies and trays (40.5 million times/year). Units that are worn out or broken end up in plastic recycling (about 80,000 kg).

Export products are packaged in cardboard transportation and wholesale packages. Their recyclability is based on EU guidelines. The recyclability in the target countries depends on the local recycling arrangements.

## Packaging actions in 2019:

### **250 MILLION PLANT-BASED CARTONS A YEAR**

Our house-shaped, i.e. gabled, milk, sour milk, cream and yoghurt cartons are 100% plant-based. The annual carbon dioxide emissions of the packaging were 3,140 tonnes less, compared to traditional, fossil-based materials. That is the equivalent of driving from Helsinki to Lapland and back more than 10,000 times.

At least 90 percent of the material for the new packaging of artisan cheeses is

## **RECYCLED PLASTIC**



### **ARTISAN CHEESES AND VALIO MIFU® IN RECYCLED PLASTIC**

At least 90 percent of the material for the new packaging of artisan cheeses is recycled plastic. Over 50 percent of the packing plastic used with MiFU® mince and strips is recycled. We were one of the first food companies to start using recycled plastic.

### **GOODBYE TO MILLIONS OF PLASTIC LIDS**

We discontinued the use of plastic spoon lids on the Valio PROfeel® sugar-free quark products. Eliminating the lid reduced the

amount of plastic packaging by 44 percent, i.e. the equivalent of more than one million plastic bags annually.

## Packaging actions in 2020:

### **PACKAGING INNOVATION: REUSABLE, BIOCOMPOSITE LID**

At the beginning of the year, Valio and Stora Enso distributed 10,000 wood fibre-based reusable lids made from a biocomposite. In doing so, we encouraged consumers to reduce food waste.

### **SLICED CHEESE IN RECYCLED PLASTIC**

We are putting our cheese slices into eco-friendlier packaging. Over 55 percent of the packaging material is made from plastic bottles recycled in Finland. Additionally, by making the packaging thinner, we will save 70 tonnes of plastic per year (-14% per package).



# TRANSPARENT SOURCING

The three most important areas of responsible sourcing are food safety, social responsibility, and environmental responsibility.

We verify the quality, safety and origin of all the raw materials and packaging materials we source. Also our suppliers and subcontractors have committed to our responsible way of operating.



About 95 percent of the raw material kilos used in the products we make is milk kilos. Other ingredients include, for example, berries, grains, sugar, and rapeseed oil. Below we address how we source these ingredients. Read about milk procurement in the sections **Owned by Finnish dairy farms** and **Cows among the healthiest in the world**.

## PRIORITY IN DOMESTIC SOURCING

We buy local raw materials whenever their quality, competitiveness and availability meet our criteria. For us to provide high-quality and tasty products to consumers independent of the harvest, we have various suppliers in Finland and abroad.

The domestic content of our procurements in Finland, including raw milk material, was over 90% in 2019. Of our raw ingredients, 0.08 percent comes from countries that **Amfori BSCI** has classified as risk countries.

To improve the traceability and transparency of our supply chain, we aim to shorten supply chains and to know our suppliers and manufacturers better.

## APPROVED RAW MATERIAL SUPPLIERS ONLY

Valio's sourcing policy guides our raw material purchases. We ensure the food safety and responsibility of the sourcing chain through a supplier approval and management process:

- All our suppliers must commit to the Valio Supplier Code of Conduct.
- Raw material packaging suppliers additionally must meet the requirements in product and supplier surveys
- Upon entering a new partnership, we inspect the most significant suppliers on-site. Additionally, we audit our suppliers on the basis of risk assessments. Our own audits are focused on ensuring food safety and quality.
- We encourage our raw material producers in risk countries to become members of the Sedex organisation. Sedex (Supplier Ethical Data Exchange) is a non-profit organisation that helps its members to promote responsible supply chains.

- We use the Sedex risk assessment tools to monitor the results of the responsibility assessments and audits of our suppliers.
- In 2019, we invested particularly in the social responsibility development of procurements. We developed the expertise of Valio employees and added new resources to the procurement team.
- We initiated an extensive
- assessment of human rights in our supply chain. As part of it, we are also **assessing the human rights** impacts of the supply chain.

## RISK-BASED SUPPLIER MANAGEMENT PROCESS

We will update our supplier approval and management processes in 2020 to make them risk-based, and we will target the management measures to these suppliers in particular. We will also strengthen the monitoring of supplier compliance, and we will address any possible grievances.

Additionally, we will define from a responsibility perspective the raw materials (e.g., cocoa, coffee, palm oil)

that our products contain. For these raw materials, we will improve the management of risks across the supply chain. Measures could include, for example, shortening the supply chain and raw material certifications.

### **FINNISH MEAT, NO ENDANGERED FISH**

Valio Food Solutions serves professional kitchens and the food industry. The dairy products and the juice and berry products sold to these customers are made in-house by Valio. We buy other products, such as frozen foods, from our approved sub-suppliers. The beef, pork and chicken used in Valio-branded products are 100 percent Finnish. Starting from the

beginning of September 2020, the lamb meat also will be of Finnish origin.

We are committed to the WWF's fish programme; our frozen foods containing fish do not have any species classified as endangered by the WWF. Since the beginning of 2020, all our products containing fish are made from WWF's Green-listed fish: i.e. the fish is Finnish, MSC- or ASC-certified and sustainably caught or raised.

### **FINLAND'S LARGEST BERRY PROCESSOR**

The Suonenjoki jam plant produces the jams that flavour our yoghurts and other

products. The Pitäjänmäki juice plant makes berry sauces and juices.

We favour Finnish berries, based on their quality, availability and price. To ensure availability, we also buy berries, berry mashes and concentrates from elsewhere in Europe. For instance, Finnish strawberries are sold almost entirely to households.

We buy tropical fruit mashes, pieces and concentrates from, e.g., South America and Asia, orange concentrates from Greece, Brazil and Mexico, and pineapple concentrates from Indonesia and Thailand.

## **TAGGING ALONG WITH BERRY PICKERS**

*We actively collaborate with our largest berry supplier, Polarica, to make sure that the rights of berry pickers are upheld and that working conditions are in order.*

*We approve each supplier and picking region separately; thus we do not buy berries through intermediates.*





## FOOD SAFETY

Traceability of raw and packaging materials and self-monitoring ensure safe products:

# 1

**Ingredients and materials are subject to a strict approval process.**

# 2

**We carefully monitor production processes and finished products.**

The plants carry out self-monitoring based on the HACCP system. Self-monitoring is used to identify and eliminate factors that could jeopardise consumer safety and health.

# 3

**All plants have a food safety control system in place.**

# 4

**Production plants and warehouses are approved by authorities and are subject to regular monitoring by authorities.**

# 5

**Raw milk and end products are analysed for chemical residues.**

The sample-taking and analyses results are within the scope of internal and external audits.

# 6

**A product's most important traceability information is the 'best before' date. Information about the raw materials and other materials can be traced based on this.**

Read more about ensuring food safety in the section [Sustainability management](#) or check out Valio's food safety and quality policy [online](#).

## MILK SOURCING

The share of Finnish milk in the raw materials for Valio's products in 2019 was about 82%. All products sold in Finland are made with Finnish milk. About 10 percent of our milk is sourced from partnered producers in Estonia and Russia. That milk is used in local production.

Around 8 percent of our milk is sourced from other suppliers: in the USA, we sell locally produced cheeses alongside ones that are made in Finland. In China, we sell milk and whey powders, which are made in Finland out of Finnish milk. In addition

Valio's exports account for

**25%**  
**OF FINLAND'S**  
**FOOD**  
**PRODUCT**  
**EXPORTS**

Valio is responsible  
for nearly 100% of  
the milk product  
exports from Finland.

to Finnish value-added products, on the Chinese market we also sell bigger target-market products, the production of which we have outsourced to our collaboration partners. The quality criteria for these products are stricter than required by local regulations.

## EXPORTS TO 60 COUNTRIES

We export our products to roughly 60 countries. Milk and whey powders as well as butter as a raw material for the food and baby food industries account for the majority of exports. We also export consumer products.



## VALIO'S PRODUCTION PLANTS

Valio has plants in Finland, Estonia and Russia.

The milk used at Finnish plants comes from our owner-entrepreneur farms in Finland. In Estonia and Russia, we source our milk from our partnered producers, whose quality we monitor continuously.

-  CHEESES
-  POWDERS
-  FRESH PRODUCTS
-  JAMS
-  JUICES
-  BUTTER AND SPREADS





# INNOVATIONS TO PROMOTE HEALTH AND WELLBEING

Nobel Laureate A.I. Virtanen was in charge of Valio's laboratories for nearly 50 years, and his legacy lives on in our product development. Our products are nutritious and make everyday life taste better.



# WE STUDY TRENDS, LISTEN FOR WHAT PEOPLE WANT, AND MAKE IT HAPPEN

TOGETHER  
WE MAKE life  
BETTER



WELLBEING  
FOR THE BELLY



NATURALITY



HEALTH & WELLBEING



SNACKING & TRAINING



PLANT-BASED



MILK PROTEIN  
FOR COOKING



DELICACIES



## **NUTRITION AGREEMENTS ON SUGAR AND SALT**

The aim of the Finnish Government's Nutrition Committee's Nutrition Agreement Model is to encourage food service operators to promote high nutritional quality in diets. The three agreements we have signed, which end in 2020, are to help people reduce their salt and sugar use, as well as to make lower-salt recipe choices.

## **MORE SNACKS WITH REDUCED SUGAR**

Our target was to double the number of unflavoured, sugar-free, and reduced sugar (20-50 percent less) products by 2020 from the 2015 level. We nearly succeeded in reaching the target: we introduced to the markets 157 new reduced-sugar snacks.

The result is partly impacted by the fact that in 2019 we decreased the total number of new launches.

## **VALIO VALSA®: MORE LOWER-SALT ALTERNATIVES**

Sales of Valio ValSa® lower-salt products remained steady at just under seven million kilos. Thus we came close to the target we had set. We targeted our advertising

# **HIDDEN SALT IN FOOD**

Over 86 percent of all women and 98 percent of all men in Finland consume too much salt (**read more >>>**). Sodium increases the risk of high blood pressure. Roughly half of the salt intake is 'hidden' in food: one quarter in meat products and another quarter in grain products. Cheeses and spreadables also contain salt.

more towards the whole family, so that an increasing number of Finns would discover the lower-salt cheeses and spreads.

## **HOME COOKING WITH VALIO'S LOWER-SALT RECIPES**

We promised to create a new search feature on the Valio.fi website to make it easy to find lower-salt recipes and to include the sodium content of each recipe. We achieved the target fully in 2019.

With close to 5,000 recipes, Valio.fi is one of Finland's most popular food sites. Our recipes and food content help

a big number of Finns support wellbeing through cooking.

## **INFORMATION ON WELLBEING FOR CONSUMERS AND PROFESSIONALS**

Valio.fi offers nutrition tips, calculators and menus for home cooks, professional chefs, and nutrition professionals. The calculators are an easy way to check the intake of iodine, calcium and vitamin D.

## **129 HEART SYMBOL PRODUCTS**

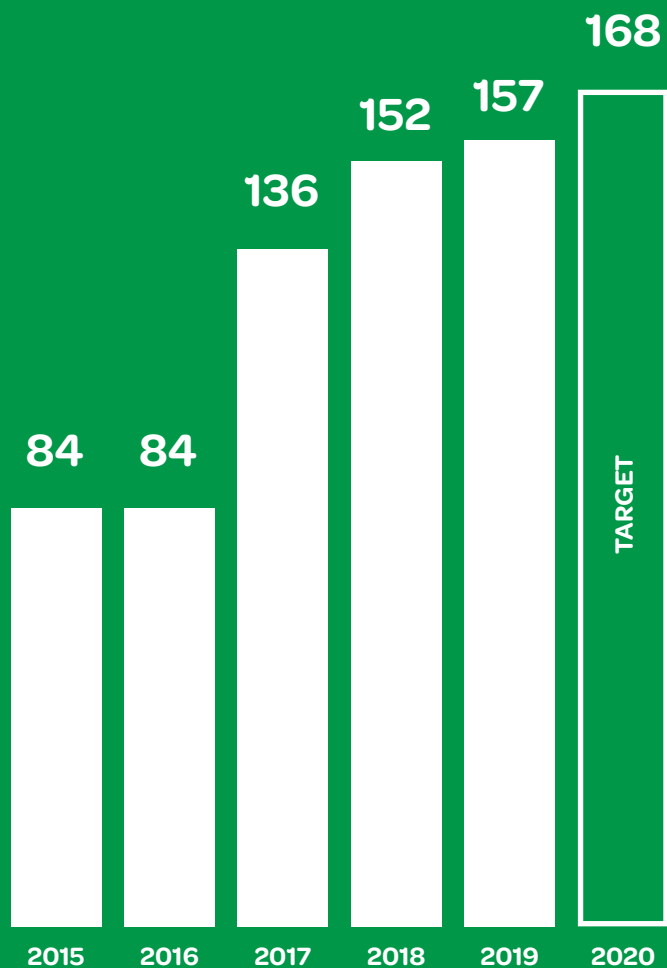
There were 129 (131) Heart Symbol products in Valio's retail and industrial kitchen portfolio in 2019. A product with the Heart Symbol is a better choice in its product category in terms of fat content and quality, sugar, and salt.





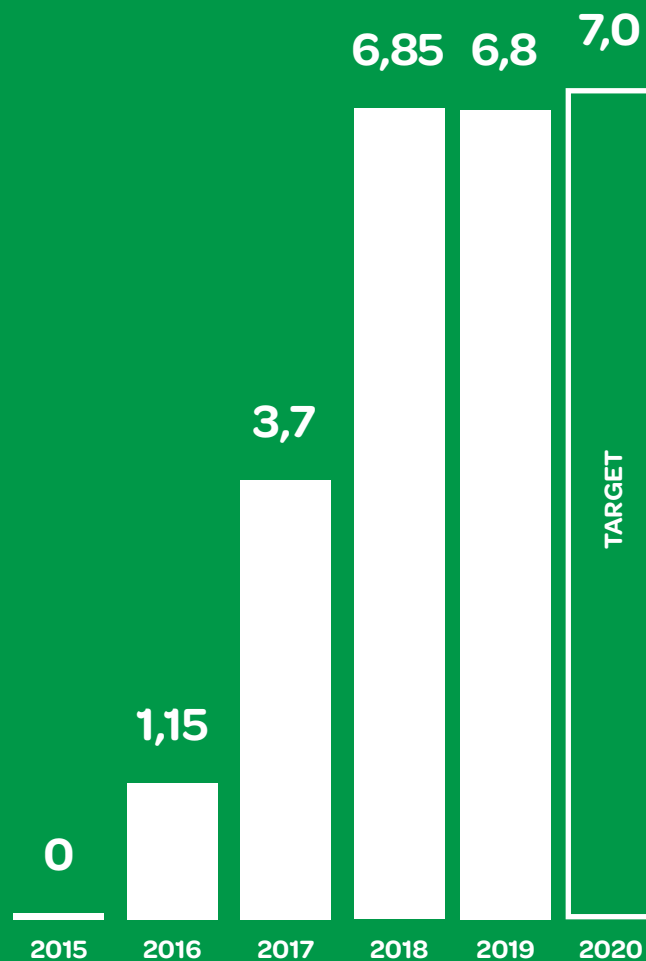
### SUGAR REDUCTION IN PRODUCTS

(Number of snack products)



### SALES OF VALIO VALSA® LOW-SALT PRODUCTS

(million kilos)



# TOGETHER WITH STAKE- HOLDERS

Valio's stakeholders are dairy farm entrepreneurs, i.e. Valio's owners, personnel, customers, consumers, goods and service providers, as well as societal decision-makers and influencers. Identifying people's different expectations and taking them into account are the cornerstones of Valio's stakeholder work. We interact with local and national stakeholders and learn from each other.



We communicate through in-person meetings and events, Valio's online services and social media channels, our consumer service, customer and owner magazines, and focus group-specific newsletters.

- Valio's reputation remained at a good level 3.65 (3.62) in T-Media's annual Reputation & Trust survey.
- Valio was voted Finland's most sustainable company in the corporate responsibility survey Sustainable Brand Index™ for the seventh consecutive year. People consider Valio's Finnish origin, animal welfare and sustainable packaging as important.

#### **VALUED PARTNER FOR CUSTOMERS**

Valio's customers include retail chains, staff cafeterias, restaurants, wholesalers, service stations, the food industry, nutritional service providers, and bakeries. We communicate about product defects or errors, recalls, and disruptions in distribution openly and quickly.

- Our security of supply to our customers exceeded 99 percent (over 99%) in Finland.

Valio has four ethical principles that are applied in advertising:

## **TRUTH, EQUALITY, GOOD CONDUCT, AND SAFETY**

- A Factum survey examines the performance of 25 fresh-product suppliers in Finland. In 2019, our customers ranked us as the best in the benchmark group. Security of supply and reliability are among the most important issues for them.
- Valio Food Solutions serves industrial kitchens and food industry companies in Finland and around the world. In Onway's 2019 survey, Valio's Net Promoter Score (NPS) was excellent at 82 (77). Customers especially value the professionalism and good service of Valio employees and the products.

Millions of encounters with consumers Valio.fi is one of Finland's most popular food sites. It sees more than 500,000 unique users every week. We answer questions about our products and our company through the contact form, in phone calls, and on social media.

- In a continuous quality survey, people rated Valio's consumer service 9/10. They appreciated the speed, friendliness and expertise of the service.
- We responded to more than 200,000 consumer contacts. These contacts were nearly evenly split among product remarks and questions, wishes and ideas. Consumers were especially interested in product-related matters.

#### **RESPONSIBLE MARKETING COMMUNICATIONS**

We follow the Association of Finnish Advertisers' international guidelines and rules for advertising. Valio has four ethical principles that are applied in advertising: truth, equality, good conduct, and safety. In 2019, we drafted a new marketing and communications policy.

[Read more >>>](#)



## **VALIO'S ADVISORY BOARDS AROUND FINLAND**

We are increasing transparency in our operations and engaging with communities in Valio's operating areas: what is seen as important in the role of Valio and its milk production, what should we develop, and what expectations do our stakeholders have? We invite regional MPs as well as leading officials, customers and experts from various fields to Valio's advisory boards. In 2019, we arranged events in Joensuu and Jyväskylä, Finland.

## **NATIONAL AND INTERNATIONAL ADVOCACY**

Valio is involved in both European and international dairy business advocacy. It's important so that decision-makers

have a sufficient understanding of the industry's specifics and the facts needed to make decisions.

Valio's international and Finnish advocacy is handled by the Milk Refiner and Dairy Wholesaler Association (MML). MML is a member of the European Dairy Association (EDA) and the International Dairy Federation (IDF).

Valio is a corporate member of the European Association of Dairy Trade (EUCOLAIT). The European Whey Producers Association (EWPA), of which Valio is a member, works in conjunction with the EDA. The EDA and EUCOLAIT have influence in EU decision-making related to the dairy sector. The EDA is focused on the dairy industry, and EUCOLAIT focuses on trade. The IDF

focuses on making use of scientific information regarding the milk chain as a whole.

In Finland, Valio is a member of the Finnish Food and Drink Industries' Federation (ETL) and the Finnish Organic Food Association (Pro Luomu ry). The ETL shapes the operating environment for food industry companies, so that the companies have the best possible operating conditions to grow and succeed in Finland and internationally. The task of Pro Luomu is to promote the goal-oriented development and growth of the organic sector. Valio is also a member of the Ruokatieto Yhdistys ry, an association promoting Finnish food culture.

## **VALIO AKATEMIA SUPPORTS SPORTS ACTIVITIES FOR CHILDREN AND YOUNG PEOPLE**

*Valio Akatemia® supports sports activities for children and young people by awarding stipends and by promoting a healthy way of life.*

*In 2019, Valio Akatemia® awarded 136,000 euros to support sports activities for more than 300 children and young people.*





# PERSONNEL WELLBEING AND DEVELOPMENT

Competent, motivated and healthy employees are at the foundation of Valio's success.

Competent, motivated and healthy employees are at the foundation of Valio's success. At the end of 2019, Valio had 4,160 (4,200) employees in Finland, Sweden, Russia, Estonia, the United States and China. Most of the employees, 3,152 (3,194), were in Finland.

All key figures related to personnel are available in the section Personnel information. **Read more >>>**





## EQUALITY AND EQUAL OPPORTUNITIES

We promote the equal treatment of personnel in recruiting, remuneration and development, regardless of ethnicity, religion, political views, gender, age, nationality, or sexual orientation. Our goal is to create equal development and career advancement opportunities for males and females. The measures related to these goals are included in Valio's Equality and Non-Discrimination Plan. 53 percent of Valio employees are male and 47 percent female. At the end of the year, Valio's Executive Board had six members, three of them were female.

*88 percent of employees were in a permanent employment relationship.*

## MEANINGFUL WORK PERSONNEL SURVEY

The annual Meaningful Work personnel survey was conducted in Finland and for the first time in all other Valio countries. The survey results show that the purpose of our business operations is clear to Valio employees, we are proud of our work, and our values are reflected in our work. There



is also room for improvement in, e.g., how we prioritise projects and ensure that the work load is evenly distributed. Employees would also like more feedback that is constructive and positive. The teams are compiling development plans, and their implementation will be monitored monthly. In 2019, the score was 2.7/3.

## PERSONNEL DEVELOPMENT IS GLOBAL COLLABORATION

The 'People Forum' events, created to develop people and strategic capabilities,

regularly elevated personnel-related issues to management's discussions. In addition to global development projects, each country had its own development projects.

- **In Finland**, we continued development of the Valio Campus training programme. We produced a number of new trainings to develop professional competence and supervisory work. Project management skills in particular were strengthened. Also Valio's induction programme was brought online. This ensures a uniform induction and support supervisors in the induction process.
- **In the United States**, employee competencies were assessed against the strategy and development plans were drafted; the plans were reviewed in a discussion with each employee.
- **In Russia**, a global competence model was introduced to identify talents. Personal development plans were drafted in target and development discussions. New content was produced for training programmes.

- **In Sweden, China and Estonia,** corporate culture, leadership and collaboration were developed. In Sweden, the focus was on identifying personal behaviour and attitude models, and on learning to understand the personality profiles of others. In China, the focus was on development of leadership and organisational efficiency through a mentoring approach. In Estonia, recruiting communications skills were developed.

## TARGET AND DEVELOPMENT DISCUSSIONS

The goal of the target and development discussions is to promote job performance, wellbeing at work, and commitment to work. The discussions create a cornerstone for collaboration and dialogue between the supervisor and team member. A target and development discussion process is used in all Valio countries.

## HOW IS VALIO PERCEIVED AS AN EMPLOYER?

In 2019, we conducted a survey to find out how Valio is perceived as an employer in Finland and globally. Among the issues that sparked interest in Valio were development opportunities, encouragement from co-workers, impact on food



culture, and the opportunity to be part of building a sustainable world. Valio's values – responsibility, consumer and customer focus, renewal and collaboration – were also identified among Valio employees and outside the company.

## WELLBEING AT WORK AND OCCUPATIONAL HEALTH

Wellbeing at work is shaped by the employees' mental, physical and social health, fairness and inspiring leadership, personnel development, and good collaboration and engagement.

In addition to measures related to the development of leadership, personnel and

competence, Valio supports the physical activities of individuals and organises various events related to wellbeing and health.

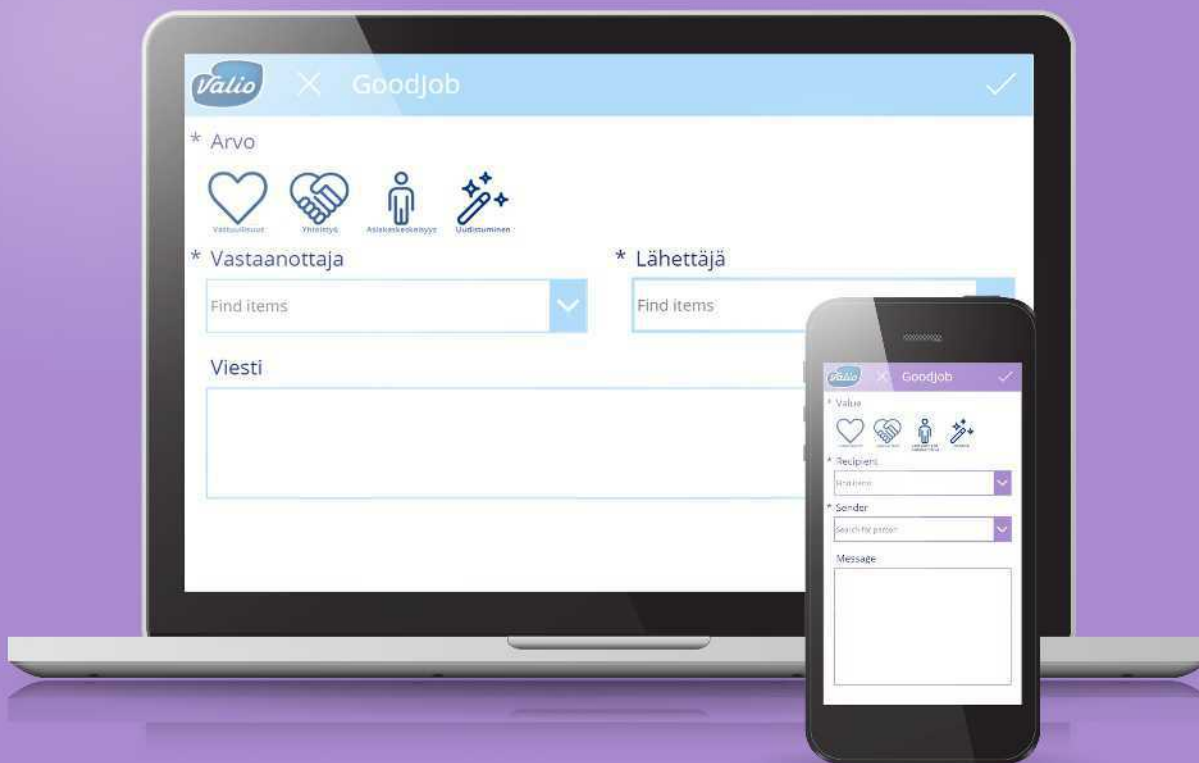
Occupational safety and occupational health services in our operating countries are arranged in line with the local statutory requirements.

A workplace survey is a statutory obligation in Finland. It is used to identify the work environment's and work community's resources and potential issues jeopardising health and safety. Occupational health services and working conditions are developed based on the survey results.

All our employees in Finland are within the sphere of occupational health services. In Finland, the cost of occupational health services was 343 (351) per person. The sick-leave rate was 4.0 (2018: 3.8).

We invested in work capacity management in 2019. Good work capacity management can keep work capacity risks in check and promote working capacity. We emphasise continuous engagement with employees and addressing issues in a timely manner. Everyday conversations between employees and supervisors as well as an early caring model are key practices for us.

# GOOD JOB!

*In January 2020, we launched Good Job – an app that employees can use to thank a co-worker for doing work that aligns with our values. The feedback is also sent to the supervisor.*





Käytä suojavaatteita.

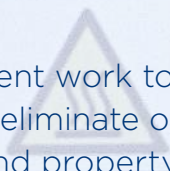
Wear protective clothing.

# OCCUPATIONAL SAFETY

Hold on to handrails.

Valio aims for zero incidents or accidents.

We do persistent work to improve work safety. Our goal is to eliminate or minimise personnel, operational, and property hazards.



Varo kuumia pintoja.

Warning: Hot surfaces.



Varo liukkaita pintoja.

Warning: Slippery



We log and investigate all incidents at Valio. Every incident that results in an absence or care expenses is recorded as an incident. All our employees in Finland can track incident reports. Starting at the beginning of 2020, we are tracking the development of incidents on a monthly basis globally.

There were three percent fewer workplace incidents in Finland in 2019 than in the previous year. The incident frequency was 20.5 incidents per million hours worked. Of these incidents, 23 percent happened during work commutes. There were no reports of occupational diseases. There were no workplace incidents resulting in death.

The most common incidents were caused by cuts and various bruises (19% of the cases), and falls or slipping (19%). 54 percent of the cases involved absences of less than three days.

In 2019 we continued the practical implementation of safety matters at our Finnish and Estonian plants, in accordance with the Valio Production Methods. We trained supervisors in safety issues at all production plants.

## SIGNIFICANTLY FEWER LONG-TERM ABSENCES DUE TO WORKPLACE INCIDENTS



*In 2020 we are building our procedures to meet ISO 45001 requirements on occupational health and safety systems.*

Development of occupational safety indicators is in the Graphs section.

[Read more >>>](#)





# HUMAN RIGHTS WORK AT VALIO

People play a key role in Valio's operations, and respect for human rights is an important part of Valio's responsibility work.





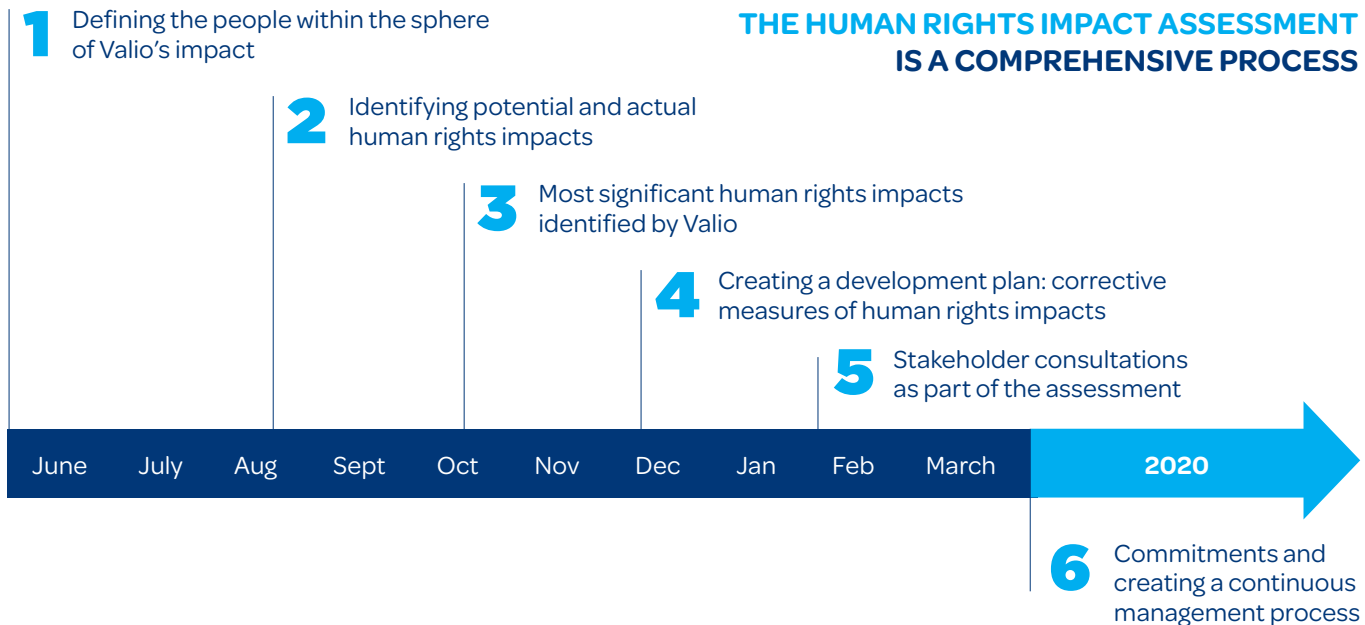
In line with its Code of Conduct (Our way to operate – One Valio), Valio is committed to respecting human rights, ethical business operations, and ensuring a fair, equal, encouraging, safe and healthy workplace for its personnel. Valio's Code of Conduct has been approved by the Executive Board, and its principles apply to all Valio employees. Valio's suppliers are committed to the same principles through the Valio Supplier Code of Conduct.

### HUMAN RIGHTS IMPACT ASSESSMENT PROCESS STARTED

Even though Valio has done human rights-related work for decades, there has been no systematic risk assessment process. In addition to the increased expectations of our stakeholders on managing human rights risks, we too want to better understand our own impacts and minimise any potential negative impacts caused by our operations, as well as

develop the appropriate issues. For these reasons, we started human rights impacts assessments in 2020.

In addition to the assessment process, we want to increase Valio employees' understanding of human rights and the potential impacts of Valio's operations, and how Valio can affect them. There were 35 Valio employees from different functions doing the assessment work. The work was supported by three external experts.

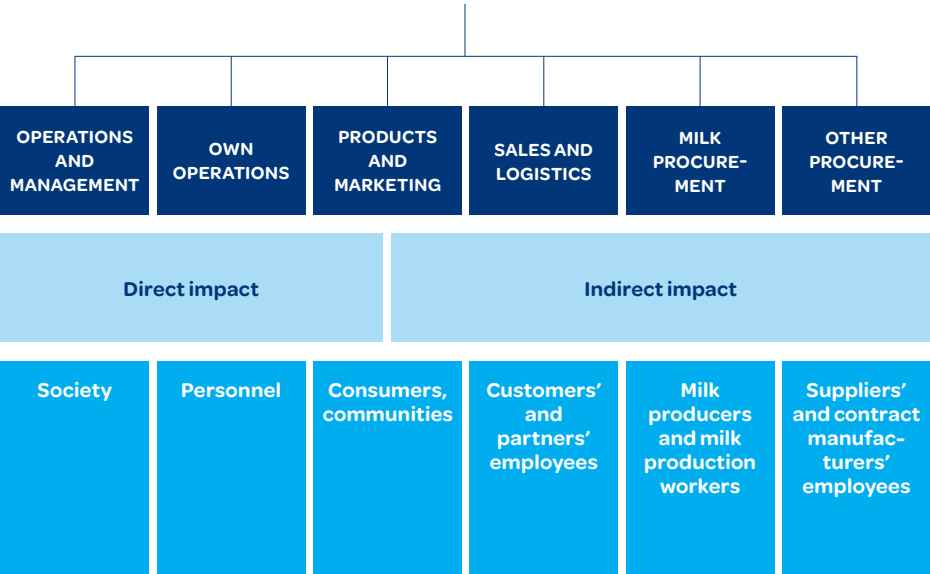


# THE HUMAN RIGHTS IMPACT ASSESSMENT

1

DEFINING THE PEOPLE WITHIN THE SPHERE OF VALIO'S IMPACT

The assessment work started by identifying the Valio functions through which human rights impacts can emerge. At the same time, we identified the potential targets of the impacts.



2

IDENTIFYING POTENTIAL AND ACTUAL HUMAN RIGHTS IMPACTS

To identify potential risks, we used the **DIHR compliance assessment tool** developed by the Danish Institute of Human Rights (DIHR), as well as various internal sources (whistleblower channel, audits, inspections, personnel surveys, experiences) and external sources (country- and sector-specific human rights reports, industry benchmarks).

In the first phase of the assessment, we identified risks and asked the following questions:

- Which human rights may be at risk?
- Is the impact direct or indirect (cause, contribute, linked)?
- Is the impact actual or potential?
- What are the current risk management mechanisms and what are their possible shortcomings?

The assessment of risks also involved assessing the severity of the risk (volume, gravity, remediability) and probability. The assessment did not cover all of Valio's operations, i.e. the assessment work was limited so that the focus in identifying the risks, e.g. in terms of milk procurement and own operations, was mainly in Finland.

3

MOST SIGNIFICANT HUMAN RIGHTS  
IMPACTS IDENTIFIED BY VALIO

We identified the most significant human rights on the basis of assessed severity and probability. They included risks that are considered as the most serious, albeit unlikely to occur. They also included risks with lower severity, but high probability.

Valio’s most significant human rights impacts were identified through the assessed risks:

- Shortcomings related to employment and working conditions
- Discrimination and harassment
- Impacts on people health and safety
- Use of child labour and young workers
- Forced labour

- Freedom of association
- Freedom of expression
- Water use in the production of agricultural raw materials

In the current assessment, the biggest human rights impacts identified in our own operations target the human right to health, safe working conditions, as well as non-discrimination and non-harassment.

The potential impacts target a much broader range of different rights through partners and the supply chain. These include, e.g., rights related to working conditions, freedom of assembly and freedom of

association, freedom of opinion and freedom of expression, children’s rights and the ban on forced labour. The most severe risks in the supply chain targeted countries where the protection of human rights is inadequate and the labour force largely consists of migrant workers. Violations related to working conditions are globally one of the most serious human rights impacts related to agricultural products.

Additionally, we identified risks that may have a wide-ranging impact on a number of human rights. These include, e.g., unfair competition, bribery, and corruption.

BELOW ARE EXAMPLES OF THE BIGGEST RISKS IDENTIFIED, BY IMPACT GROUP

Society	Own personnel	Consumers	Milk producers and milk production workers	Procurement and distribution channels
Milk production’s climate change impacts on people’s health and the environment  Distribution transportation’s emissions and noise	Work-related injuries  Unequal treatment and discrimination of employees	Intentional and unintentional misuse of products in distribution channels (storage, packaging information, etc)	Injuries related to machinery, animals and chemicals  Mental stress and working capacity of producers	Employees’ inadequate working conditions in procurement and distribution channels (work safety, work hours, remuneration, etc)



## 4

### CREATING A DEVELOPMENT PLAN: CORRECTIVE MEASURES OF HUMAN RIGHTS IMPACTS

Based on the human rights impacts identified, we drafted a preliminary development plan. We will start corrective and preventive measures to eliminate and reduce the identified risks. At the same time, we will review human rights risk management processes and obtain additional information so that the identification of risks can be expanded and their probability and severity decreased.

We will report on the development plan and on the assessment-based measures to be implemented, in the Sustainability Report 2020.

## 5

### STAKEHOLDER CONSULTATIONS AS PART OF THE ASSESSMENT

As an important part of the assessment work, we wanted to hear the opinions of the people who are the target of the assessed impacts. At the beginning of 2020, we collected feedback from our own personnel, from dairy farms, and from human rights and responsible sourcing experts, e.g. NGOs. The feedback gave us valuable information about people's experiences and perspective for the content of the assessment. We will continue consulting with stakeholders after publication of this report, and we will develop the human rights impact assessment based on the feedback.

## 6

### COMMITMENTS AND CREATING A CONTINUOUS MANAGEMENT PROCESS

In 2020, we will draft Valio's human rights policy and set targets and indicators for the human rights work. We will also create a continuous management process for human rights impacts to maintain the assessment of human rights impacts as well as to prioritise and implement the necessary measures. The human rights work will be part of sustainability management. Valio's Executive Board and Board of Directors will oversee the work. We will update the Supplier Code of Conduct to take into consideration the risks identified in the human rights impact assessment. We encourage Valio employees and our stakeholders to have an open and trustful atmosphere where problems and challenges can be discussed. Valio employees have several channels for reporting grievances. Work safety observations are expedited transparently, e.g. through the observation programme, and the whistleblower channel provides an opportunity to anonymously and confidentially report illegal or unethical activities, like harassment or discrimination. In 2020, we will develop complaint mechanisms also for external stakeholders. The most important focus of Valio's human rights work in 2020 is the commitment to human rights, improving the management processes, and increasing knowledge, know-how and collaboration.



*report.whistleblow*



# SUSTAIN- ABILITY MANAGEMENT

Valio's sustainability is managed as part of its business in the various areas of responsibility under the Executive Board members. Valio's sustainability is part of every employee's onboarding.

Valio's focus areas of responsible business are presented on page 10. [Read more >>>](#)



In the stakeholder survey we conducted in 2017-2018, we verified that our stakeholders still believe in the materiality of the main sustainability themes. We surveyed people's expectations about the sustainability of food and milk production in Finland, Sweden, Estonia, Russia, China, and the United States. Additionally, in Finland, we interviewed consumers, decision makers and NGOs.

## CODE OF CONDUCT, POLICIES, AND SUSTAINABILITY COMMITMENTS

The Code of Conduct lays out the acceptable and desired operating culture at Valio ([read more >>>](#)). Everyone at Valio is required to successfully complete the Code of Conduct online training. All operating countries have a whistleblower channel that employees can use to confidentially report illegal or unethical activity. Our daily operations and decision making are also guided by a number of policies and commitments ([read more >>>](#)).

## CERTIFIED SYSTEMS AND SELF-MONITORING

Product safety is ensured by raw material and packaging material traceability, certified quality systems and self-monitoring of production.

We operate in accordance with the descriptions, procedures and instructions recorded in the Valio Fact management system. The procedures take into account the requirements of laws, standards and customers.

<b>ENVIRONMENT</b>	<ul style="list-style-type: none"> <li>• <b>ISO 14001 environmental certification</b> at Finnish and Estonian production plants</li> </ul>
<b>OPERATIONAL QUALITY</b>	<ul style="list-style-type: none"> <li>• <b>ISO 9001-certified quality system</b> Valio Finland, Estonia and Russia</li> </ul>
<b>FOOD SAFETY</b>	<ul style="list-style-type: none"> <li>• <b>FSSC 22000-certified</b> food safety control system at Lapinlahti, Seinäjoki, Joensuu, Haapavesi, Suonenjoki, Turenki, Jyväskylä, Riihimäki, Vantaa, Äänekoski, Oulu and Ershovo (Russia) plants</li> <li>• <b>FSSC 22000-certified</b> food safety control system at the Võru plant (Estonia)</li> <li>• Food safety control systems at other plants are maintained in accordance with <b>ISO 22000</b> and its technical guideline ISO/TS 22002-1, and are being developed to meet the FSSC 22000 standard's requirements</li> <li>• Plans for FSSC 22000 certification are in place for the Helsinki juice plant in 2020-2021</li> </ul>
<b>SELF-MONITORING PLANS</b>	<ul style="list-style-type: none"> <li>• Production plants and warehouses have self-monitoring plans compliant with <b>HACCP guidelines</b></li> <li>• They cover the production process, from the receiving of raw and packaging materials to product, facility and process equipment monitoring, storage, and transportation</li> <li>• Self-monitoring is verified regularly through internal and external audits</li> </ul>
<b>ACCREDITED LABORATORIES</b>	<ul style="list-style-type: none"> <li>• <b>Lapinlahti-Seinäjoki regional laboratory:</b> FINAS accredited T169 test lab, accreditation requirement SFS-EN ISO/IEC 17025</li> <li>• <b>Helsinki chemistry and microbiology laboratory:</b> FINAS accredited T022 test lab, accreditation requirement SFS-EN ISO/IEC 17025</li> </ul>
<b>RESIDUE CONTROL</b>	<ul style="list-style-type: none"> <li>• Milk and product purity is verified through stricter residue control that is required by law. We check residue content in raw milk and products for harmful substances, such as heavy metals, pesticides, dioxins, mould toxins and radioactivity</li> <li>• All residue levels in 2019 were below the measuring limits of the methods we use and significantly below the statutory requirements and safety limits</li> </ul>
<b>FEEDBACK MONITORING</b>	<ul style="list-style-type: none"> <li>• We monitor the quality of our products for their entire market life through consumer and customer feedback. We log all contacts</li> <li>• When needed, we take action quickly based on feedback, and we openly communicate possible errors</li> </ul>

# GOVERNANCE AND REMUNERATION

**Finnish milk producers own Valio through cooperatives. We pay out all of our operational profit to the milk producers. Valio Ltd.'s decision-making bodies are the Annual General Meeting, the Supervisory Board, and the Board of Directors.**

You can read more about Valio's governance model on our website. [Read more >>>](#)

The Board of Directors decides on the remuneration structure for the CEO and the Executive Board, including bonus systems. Remuneration for the Board of Directors is decided on by the Supervisory Board. Supervisory Board remuneration is the purview of the General Meeting.

## SUPERVISORY BOARD REMUNERATION

In 2019, Valio's Supervisory Board was paid a total of EUR 185,110 in monthly and meeting fees.

- Chairman EUR 2,870/month
- Vice Chairman EUR 1,770/month
- Meeting bonus for each Supervisory Board meeting EUR 330
- Compensation for lost working time for each Supervisory Board meeting EUR 250

## BOARD OF DIRECTORS REMUNERATION

In 2019, Valio's Board of Directors was paid a total of EUR 210,070 in monthly and meeting fees.

- Chairman EUR 3,820/month
- Vice Chairman EUR 2,720/month
- Members EUR 2,220/month
- Meeting bonus for each Board of Directors meeting EUR 330
- Compensation for lost working time for each Board meeting EUR 250

## UPPER MANAGEMENT REMUNERATION

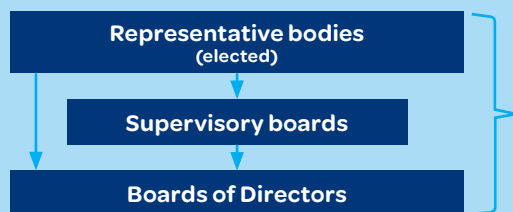
In addition to a fixed monthly salary and fringe benefits like a car and phone, Valio's upper management has profit-sharing targets and retirement benefits. Valio Group's Executive Board in 2019 included 8 members and the CEO. Members of the Executive Board were paid salaries and bonuses as follows:

- Salaries EUR 2,878,000
- Bonuses EUR 0

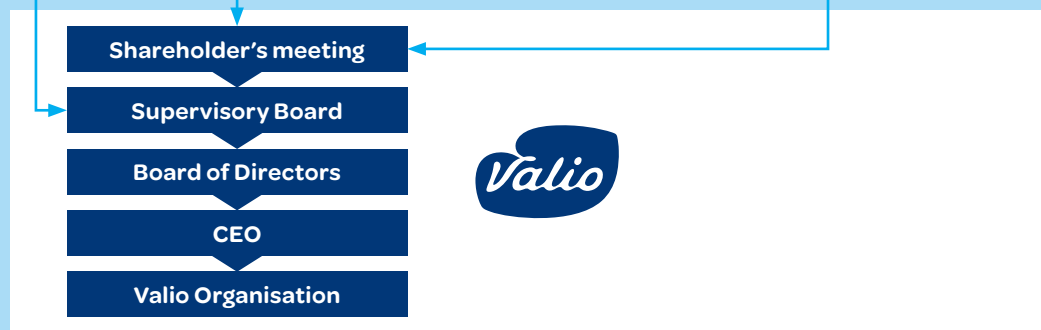


## THE VALIO ADMINISTRATION MODEL

### VALIO CO-OPERATIVES



### VALIO LTD OTHER OWNERS



## VALIO GROUP EXECUTIVE BOARD IN 2019



**Annikka Hurme**, Chief Executive Officer

**Teresa Laimio**, Executive Vice President, People and Compliance

**Juha Penttilä**, Executive Vice President, Operations

**Tuomas Salusjärvi**, Executive Vice President, Business and Development

**Elli Siltala**, Executive Vice President, Markets

**Jyri Virrantuomi**, Executive Vice President, Finance

**Ross Crittenden**, Executive Vice President, New Markets (until 3/2019)

**Rauno Hiltunen**, Executive Vice President, Strategy and HR (until 2/2019)

**Jyri-Pekka Kinnunen**, Deputy CEO (until 8/2019)



# ENVIRONMENTAL INFORMATION

The calculation practices for environmental indicators vary in Valio's plants in Finland, Russia and Estonia due to, for example, local authority instructions. In this section, we present the environmental information for 2019 to the extent that we have the information available in a comparable format. We moved to the GRI Standard in 2018. We are continuing to standardise the calculation.



# EMISSIONS TO AIR

More information is available in the section Resource efficiency at production plants. [Read more >>>](#)

## MAIN GREENHOUSE GAS EMISSIONS IN FINLAND

	Unit	VALIO FINLAND
<b>Heat plants (Valio is the only customer)</b>		
Fossil	tn CO <sub>2</sub> eq	73,800
Renewable*	tn CO <sub>2</sub> eq	80,000
<b>Refrigerant leaks</b>	tn CO <sub>2</sub> eq	800
<b>Scope 1 fossil, total</b>	<b>tn CO<sub>2</sub> eq</b>	<b>74,600</b>

\*We comply with the calculation guidelines of the international GHG Protocol. Renewable energy's direct emissions are not calculated as emissions in the inventory, i.e. computationally, they are zero.

## Heat plants (Valio and other customers) + district heating

Fossil	tn CO <sub>2</sub> eq	27,700
Renewable*	tn CO <sub>2</sub> eq	50,800
<b>Electricity</b>		
Emissions, market-based**	tn CO <sub>2</sub> eq	68,100
Emissions, location-based**	tn CO <sub>2</sub> eq	37,100
<b>Scope 2 fossil, total</b>	<b>tn CO<sub>2</sub> eq</b>	<b>95,800</b>

Received raw milk ca. 1.8 billion litres*	tn CO <sub>2</sub> eq	1,792,000
Milk collection, logistics between plants, and product delivery	tn CO <sub>2</sub> eq	38,800
<b>Scope 3 fossil, total</b>	<b>tn CO<sub>2</sub> eq</b>	<b>1,830,800</b>

## MAIN GREENHOUSE GAS EMISSIONS IN ESTONIA AND RUSSIA

	VALIO ESTONIA	VALIO RUSSIA
<b>Scope 1</b>		
Heat plants, fossil	tn CO <sub>2</sub> eq	tn CO <sub>2</sub> eq
Heat plants, fossil	7,600	1,500
Heat plants, renewable	0	0
<b>Scope 2</b>		
Electricity	tn CO <sub>2</sub> eq	tn CO <sub>2</sub> eq
Electricity	5,900	n/a

\*We comply with the calculation guidelines of the international GHG Protocol. Renewable energy's direct emissions are not calculated as emissions in the inventory, i.e. computationally, they are zero.

\*\*Purchased electricity emissions can be calculated on both a market- and location-basis. We report both calculating methods, but in combined emissions we use the market-based figure.

\*The raw milk greenhouse gas emissions calculation is based on data from 100 dairy farms (corresponds to 3% of the received milk). The figure will become more accurate as the carbon footprint of more and more farms is calculated. Valio's certificated calculation model is used in the calculation (cert. Carbon Trust 19.12.2019). For the time being, the carbon footprint calculation of raw milk does not include carbon sinks in fields or carbon dioxide emissions from peat fields.

## NITROGEN OXIDES (NOX), SULFUR OXIDES (SOX), AND OTHER SIGNIFICANT AIR EMISSIONS, 2019

	Unit	VALIO FINLAND	ESTONIA LAEVA	ESTONIA VÕRU	VALIO RUSSIA	TOTAL
Nitrogen oxides	tn	6	19	9	n/a	34
Sulfur oxides	tn	143	47	21	n/a	212
Particles	tn	251	13	6	n/a	269
Powder dryer, dust emissions	tn	17	0	0	0	17

# WATER CONSUMPTION

A dairy uses a lot of water for cooling and washing to ensure hygiene. Surface water is used for cooling at certain plants, and that water is returned to the water system after passing through a heat exchanger. The majority of the plants get their domestic water from municipal water utilities. We are reducing our water consumption through circulation washing and by effective water usage. Today the use of recycled water is significant.

We monitor our wastewater load and volume by comparing them to the received milk volume. In 2018-2020, we are aiming to reduce our wastewater load by 0.5% and its volume by 1.2%.

The most significant environmental investments in 2019 were aimed at increasing the use of recycled water at the Seinäjoki plant and the renovation of the surface water treatment plant in Äänekoski.

WATER USE IN VALIO'S PRODUCTION PLANTS 2019	Unit	VALIO FINLAND	VALIO ESTONIA LAEVA	VALIO ESTONIA VÖRU	VALIO ESTONIA TOTAL	VALIO RUSSIA	Total
Fresh water withdrawal by source							
Municipal waterworks	m³	4,278,245					4,278,245
Ground water (own wells)	m³	326,920	229,226	285,074	514,300	58,928	900,148
Surface water (own treatment)	m³	91,677					91,677
Cooling water from water bodies	m³	3,831,027					3,831,027
Water recycled and reused	m³	1,443,873		70,865	70,865		1,514,738







## WASTEWATER

All of Valio's locations in Finland are connected to municipal sewer networks and their wastewater is routed to municipal wastewater processing plants. The locations in Estonia have their own wastewater processing plants, and our Russian plant pre-processes its wastewater before releasing it to the municipal treatment plant. We are reducing wastewater volumes by reusing water at locations where the use of recycled water does not add to the food safety risk.

In smaller towns in particular, Valio's wastewater load on a treatment plant is significant compared to the town's total load. Our large water consumption and the load of product traces in wastewater make the wastewater of dairies a significant environmental risk that we control with detailed, continuous processes.

Compared to the previous year, the amount of wastewater has decreased and the wastewater load has slightly increased. Efficiency in water use has improved in Riihimäki and Oulu. The increase in the wastewater load is due to the launch of the new powder operations.

WATER DISCHARGE, 2019	Unit	VALIO FINLAND	VALIO ESTONIA LAEVA	VALIO ESTONIA VÖRU	VALIO ESTONIA TOTAL	VALIO RUSSIA	Total
Waste water to the municipal waste water treatment	m <sup>3</sup>	5,276,122					5,276,122
Waste water to the own waste water treatment	m <sup>3</sup>		220,186	355,164	575,350		575,350
Waste water to own pretreatment and then to the municipal WWTP	m <sup>3</sup>					58,928	58,928
Cooling water to water bodies	m <sup>3</sup>	3,831,027					3,831,027

# MATERIAL EFFICIENCY AND WASTE

Our goal is to use raw materials and consumables resource-efficiently. Raw materials not suitable for food products are utilised either as forage or they end up in biogas production. The goal of waste management is to implement the principle of priority, in line with local opportunities, i.e. to direct as much material as possible for reuse and material recycling.

In Finland and Estonia, faulty batches of fresh products as well as products that stores return are directed to use as fodder or biogas production in accordance with the by-products regulation of the European Parliament and of the Council.

Companies that package products in Finland, and have a turnover of at least one million euros, have a statutory obligation to arrange and pay for the collection and recycling of their packaging waste. In its agreement with Rinki Oy, Valio has transferred its producer responsibilities for packaging to various material type-specific producer organisations. We participate as a partner in plastics and cardboard producer organisations.

MATERIALS USED IN VALIO’S OWN PRODUCTION PLANTS, 2019	Unit	VALIO FINLAND	VALIO ESTONIA LAEVA	VALIO ESTONIA VÖRU	VALIO ESTONIA TOTAL	VALIO RUSSIA	Total
Raw milk	tn	1,795,000	110,837	96,880	207,717	0	2,002,717
Fruits and fruit preparations	tn	11,163	1,967		1,967		13,131
Other raw materials (sugars, salts, vegetable oils, etc)	tn	23,772	162	344	506		24,278
Use of packaging materials in Finland and for exports	tn	27,177	2,701	455	3,156		30,333

WASTE BY TYPE AND DISPOSAL METHOD 2019	Unit	VALIO FINLAND	VALIO ESTONIA LAEVA	VALIO ESTONIA VÖRU	VALIO ESTONIA TOTAL	VALIO RUSSIA	Total
Hazardous waste	tn	180	1	1	2		182
Re-use & Recycling (plastic, metal, glass, paper etc.)	tn	1,823	403	75	478		2,301
Waste to energy	tn	1,491	0	114	114		1,605
Composting and biogas	tn	31,110	5,625	4,104	9,729		40,839
Waste to burn	tn	297	107	141	248		545
Waste to landfill	tn	33	398	184	582	382	997



## USE OF CHEMICALS

We use chemicals in the washing of pipe systems and equipment as well as in whey refining processes. The environmental impacts from the acids and bases used in washing and powder plant production are related to wastewater.

In a normal situation, the acids and bases neutralise each other in a natural process, or the wastewater is neutralised before the cleaning process. Wastewater that is too acidic or alkaline may disrupt the wastewater processing plant's operation.

Valio's production plants use ammonia as a coolant. Ammonia is toxic to humans and hazardous to aquatic life, but is commonly used in large cold plants. We oversee its safe usage with detailed processes.

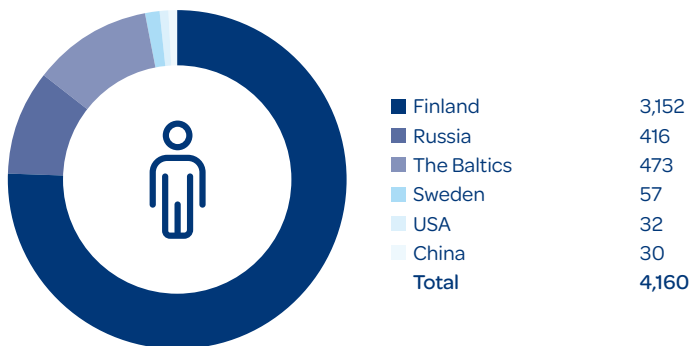


# PERSONNEL INFORMATION

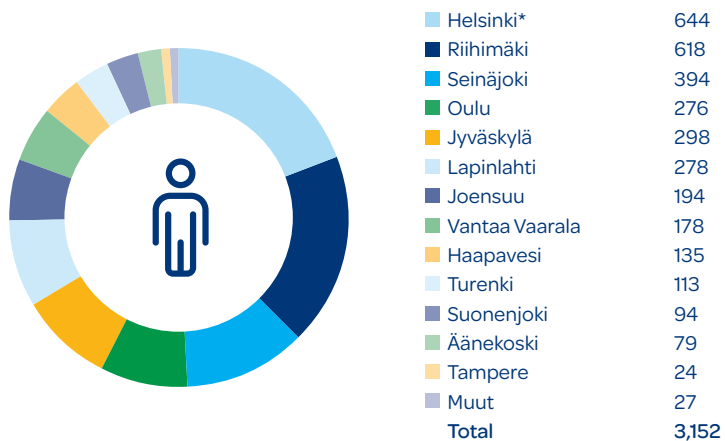


## PERSONNEL

EMPLOYEES BY COUNTRY, 31 DEC 2019

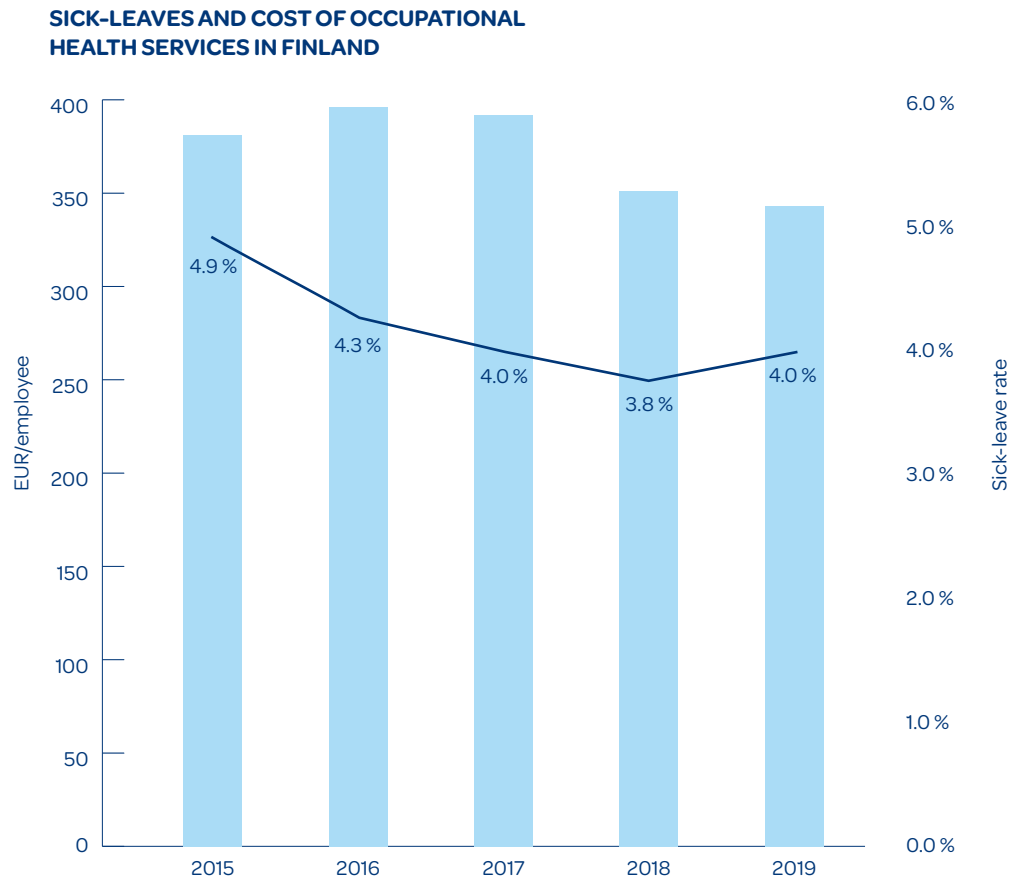


PERSONNEL BY SITE IN FINLAND 31 DEC 2019,  
INCLUDES PART-TIME AND FIXED-TERM EMPLOYEES



\* Figure includes all Helsinki sites

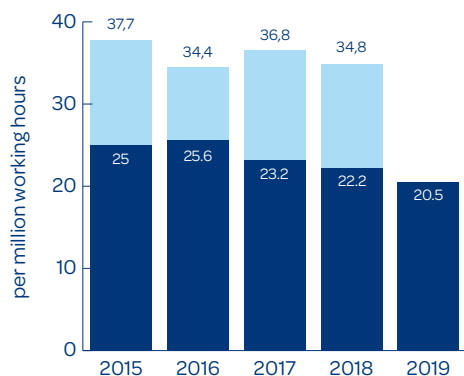








### ACCIDENT FREQUENCY AT VALIO PRODUCTION PLANTS, FINLAND



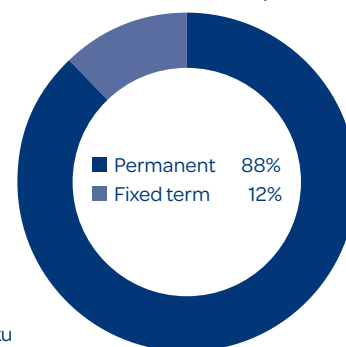
Includes at-work accidents involving Valio's employees that result in an absence from work or in treatment expenses. Does not include professional diseases or commuting. The statistics are compiled in accordance with the recommendations of the Workers' Compensation Centre (lost-time injury, LTI).

#### Source

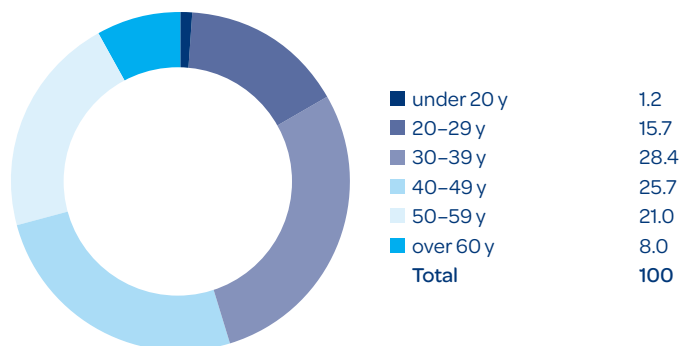
\* Valio's Mutual Insurance Company

\*\* Workers' compensation center, statistics application Tikku

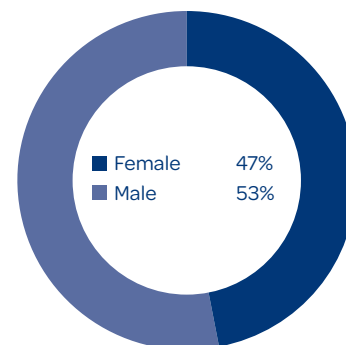
### EMPLOYEES BY CONTRACT TYPE, 2019



### PERSONNEL BY AGE, %



### EMPLOYEES BY GENDER, 2019

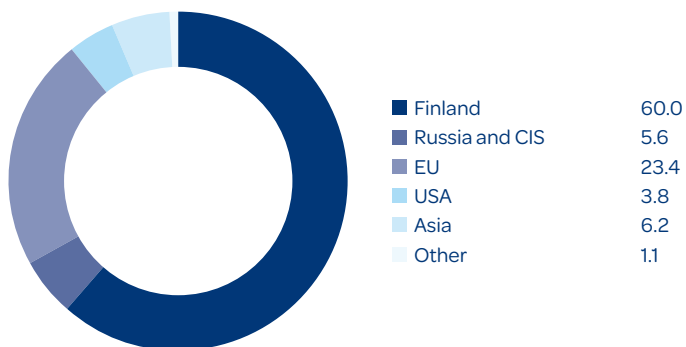


# ECONOMIC INFORMATION

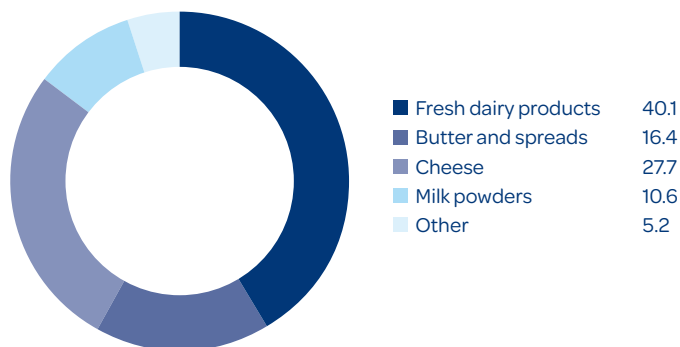


## ECONOMIC INFORMATION

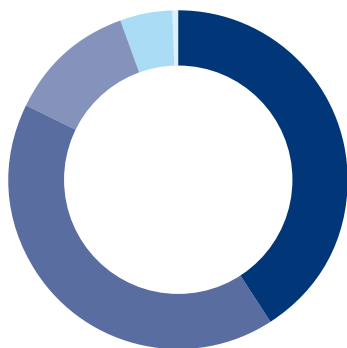
VALIO GROUP NET SALES BY AREA 2019 (%)



VALIO GROUP NET SALES BY PRODUCT GROUP 2019 (%)



DISTRIBUTION OF EXPENSES IN VALIO GROUP 2019



	CASH FLOW, MEUR OF NET SALES	2019 %
■ Milk producers	722	40.4
■ Purchases and services	710	39.7
■ Personnel costs	218	12.2
■ Depreciations	89	5.0
■ Financing costs	5	0.3
■ Taxes	10	0.6

PAYMENTS TO VALIO LTD OWNERS

	2015	2016	2017	2018	2019
Price paid for milk, MEUR	731	708	717	714	714
Dividends paid, MEUR	6	5	5	5	5
Interest on shareholder loans, MEUR	3	3	3	3	3



## VALIO GROUP FINANCIAL KEY FIGURES 2015–2019

	2015	2016	2017	2018	2019
Milk volume taken in from the owners, mill. litres	1,899	1,861	1,837	1,821	1,792
Net sales, MEUR	1,718	1,638	1,708	1,734	1,787
Balance sheet total, MEUR	1,240	1,252	1,193	1,150	1,122
Investments, MEUR	119	127	98	62	64
Net sales/milk volume taken in, EUR/litre	0.90	0.88	0.93	0.95	1.00



## VALIO GROUP NET SALES AND PERSONNEL BY COUNTRY 2019

	NET SALES* MEUR	PERSONNEL, AVERAGE	PERSONNEL 31 DEC 2019
Valio Ltd	1,497	3,251	3,152
Valio Ltd's net sales in Finland	1,072		
Valio Russia	92	413	416
Valio Baltic	125	476	473
Valio Sweden	118	57	57
Valio USA	70	30	32
Valio China	64	29	30
<b>Valio Group total</b>	<b>1,787</b>	<b>4,256</b>	<b>4,160</b>

\*) Net sales of Valio Ltd and its subsidiaries includes intra-group sale of MEUR 180.







# REPORTING SCOPE

We report Valio's operational and sustainability results once per year in our Sustainability Report, which applies the GRI Standard's guidelines.



## REPORT CONTENT

This Sustainability Report covers Valio's activities in 2019 and early 2020. It covers Valio's operations in Finland and, in part, in each of its operating countries. We are currently in a transition phase and will extend the scope of the report in the future. The functions included in a given figure or issue are stated alongside.

## GOVERNANCE

Valio's operations are guided by the Group's base mission, goals, values, strategy, and governance policies. Our governance policies determine the composition of Valio's Supervisory Board and Board of Directors, as well as the decision-making authority of the Valio organisation, such as the General Meeting, the Supervisory Board, the Board of Directors, the CEO, the Executive Board, the business units, group functions, and business processes. Valio's governance model and its administrative remuneration systems are detailed in the "Governance and remuneration" section. You find Valio's guiding policies at Valio.com.

[Read more >>>](#)

## RISK MANAGEMENT

Risk management aims to identify significant events and uncertainties that can affect the achievement of Valio's strategic, operational, and financial targets. Risk management is a part of normal operational management that aims to identify the risks related to operations, and when possible, to prevent undesirable outcomes.

Accident risks are identified and assessed regularly and their economic impacts are considered in Valio's insurance solutions. The most important insurance policies have been arranged as Group-wide insurance programmes.

As a security of supply-critical company, our risk management also has a societal dimension.

Work safety and personnel activity risks are managed through instructions and a reporting procedure. It is possible to report an observed work safety risk, and since spring 2017, an observed or suspected unethical activity on the Valio Intranet.



*report.whistleblow*

Risks are managed through various certificates. Risk identification methods are under constant development, and risk management is focused on developing preventive actions. The company has a crisis communications plan and food safety crisis management guidelines.

[Read more](#) about risk management in the Board of Director's Report 2020.

GRI TABLE

NUMBER	CONTENT	LOCATION	NOTES
GRI 102: GENERAL DISCLOSURES 2016			
1. ORGANISATIONAL PROFILE			
102-1	Name of the organisation	Valio	
102-2	Activities, brands, products, and services	47, 49, 83	
102-3	Location of headquarters	94	
102-4	Location of operations	94	
102-5	Ownership and legal form	70-71	
102-6	Markets served	94	
102-7	Scale of the organisation	79, 94	
102-8	Information on employees	56-59; 79-81	
102-9	Supply chain	16-19; 42-47	
102-10	Significant changes to the organisation and its supply chain		Valio Ltd’s cooperation negotiations, started for production and economic reasons and targeting head office functions, were concluded on 12 March 2019. The negotiations resulted in a headcount reduction of 80.
102-11	Precautionary Principle	87	
102-12	External initiatives	53-54	
102-13	Membership of associations	53-54	
2. STRATEGY			
102-14	Statement from senior decision-maker	4-5	
3. ETHICS AND INTEGRITY			
102-16	Values, principles, standards, and norms of behaviour	14	

NUMBER	CONTENT	LOCATION	NOTES
102-17	Mechanisms for advice and concern about ethics	87	
<b>4. GOVERNANCE</b>			
102-18	Governance structure	70-71	
102-35	Remuneration policies	70-71	
<b>5. STAKEHOLDER ENGAGEMENT</b>			
102: 40-44	List of stakeholder groups	52-55	
<b>6. REPORTING PRACTICE</b>			
102-45	Entities included in the consolidated financial statements	Annual Report and Financial Statement 21	
102-46	Defining report content and topic boundaries	3	
102-47	List of material topics	8-10	
102-48	Restatements of information		Valio has previously reported mainly information that concerns Finland only. We are undergoing a transition and will extend the scope of reporting in the future. Valio's production plants in Finland, Russia, and Estonia are currently unifying information gathering practices for e.g. environmental information. This report presents the information as far as it is available in a comparable format. Unification will take place during 2020.
102-49	Changes in reporting		We reported 2019 greenhouse gas emissions in Finland in compliance with the GHG protocol.



NUMBER	CONTENT	LOCATION	NOTES
102-50	Reporting period		1 January-31 December 2019, some information from early 2020
102-51	Date of most recent report		11.6.2019
102-52	Reporting cycle		calendar year
102-53	Contact point for questions regarding the report		mediadesk@valio.fi; +358 10 381 2118
102-54	Claims of reporting in accordance with the GRI Standards		The GRI Standards are applied in the report
102-55	GRI content index	88-93	
102-56	External assurance		The report is not assured externally

#### GRI 103: MANAGEMENT APPROACH

103-1-3	Explanation of the material topic and its boundary	3; 86-87	
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#### GRI 200: ECONOMIC TOPICS

##### GRI 201 ECONOMIC PERFORMANCE (GENERAL DISCLOSURE 2016)

201-2	Financial implications and other risks and opportunities due to climate change	4-5; Annual Report and Financial Statement 1-5	Valio does not report financial estimates or outcomes.
201-3	Defined benefit plan obligations and other retirement plans		www.valionelake- kassa.fi/yritys/

##### GRI 203: INDIRECT ECONOMIC IMPACTS (GENERAL DISCLOSURE 2016)

203-1	Infrastructure investments and services supported	16-19; 83-84	
203-2	Significant indirect economic impacts	16-19; 83-84	

NUMBER	CONTENT	LOCATION	NOTES
<b>GRI 204: PROCUREMENT PRACTICES (GENERAL DISCLOSURE 2016)</b>			
204-1	Proportion of spending on local suppliers	42-47	
<b>GRI 205: ANTI-CORRUPTION (GENERAL DISCLOSURE 2016)</b>			
205-2	Communication and training about anti-corruption policies and procedures		In 2019, 10 reports were received through the Whistleblower channel, ranging from inappropriate behaviour to proper hospitality and confidentiality issues. The completion rate of Valio's Code of Conduct online course was 87% on 31.12.2019.
<b>GRI 206: ANTI-COMPETITIVE BEHAVIOUR 2016</b>			
206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	Annual Report and Financial Statement 2	
<b>GRI 300: ENVIRONMENTAL TOPICS (GENERAL DISCLOSURE 2016)</b>			
<b>GRI 301: MATERIALS</b>			
301-1	Materials used by weight or volume	76	Valio does not report raw material usage in renewable/non-renewable terms, as the information is not relevant to Valio's operations (food production from various ingredients).
<b>GRI 302: ENERGY 2016</b>			
302-1	Energy consumption within the organization	37	
302-4	Reduction of energy consumption	37	Valio reports the reduction of energy consumption as a percentage of consumption.
<b>GRI 303: WATER (GENERAL DISCLOSURE 2016)</b>			
303-1	Water withdrawal by source	74	
303-3	Water recycled and reused	74-75	

NUMBER	CONTENT	LOCATION	NOTES
<b>GRI 304: BIODIVERSITY (GENERAL DISCLOSURE 2016)</b>			
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.		Valio's production plants are not located in or nearby areas that have an official environmental protection class.
304-2	Significant impacts of activities, products, and services on biodiversity	33-35	The operations of Valio's production plants have no significant impacts on nature. Valio's primary production guidance steers farms to take biodiversity into consideration in farming operations. Dairy farm operations have a significant impact on maintaining the biodiversity of field ecosystems.
304-4	Endangered species		There are nesting areas of Siberian flying squirrels in the vicinity of two sites in Finland, and there are Siberian flying squirrel migration routes in the vicinity of the headquarters.
<b>GRI 305: EMISSIONS (GENERAL DISCLOSURE 2016)</b>			
305-1	Direct (Scope 1) GHG emissions	73	
305-2	Energy indirect (Scope 2) GHG emissions	73	
305-7	Nitrogen oxides (NOX), sulphur oxides (SOX), and other significant air emissions	73	
<b>GRI 306: EFFLUENTS AND WASTE (GENERAL DISCLOSURE 2016)</b>			
306-1	Water discharge by quality and destination	75	
306-2	Waste by type and disposal method	76	Valio Oy does not treat itself waste that is classified as hazardous. Fortum Waste Solutions Oy takes care of the treatment of dangerous waste and has the necessary permits.



NUMBER	CONTENT	LOCATION	NOTES
306-5	Water bodies affected		<p>All Finnish production plants are connected to municipal wastewater treatment plants. Satisfying the emission conditions set for them ensures that the condition and quality of water systems does not deteriorate.</p> <p>The Estonian sites have their own dedicated wastewater treatment plants that are overseen by the environmental protection authorities.</p>
<b>GRI 307: ENVIRONMENTAL COMPLIANCE</b>			
307-1	Non-compliance with environmental laws and regulations		<p>In 2019, there were isolated emissions with momentary adverse impacts to wastewater treatment. The incidents were reported to environmental protection authorities in compliance with the environmental permit conditions.</p>
<b>GRI 400: SOCIAL TOPICS</b>			
<b>GRI 401: EMPLOYMENT (GENERAL DISCLOSURE 2016)</b>			
401-1	New employee hires and employee turnover		<p>The number of new/changed employment relationships in Finland was 926. The number of ceased employment relationships was 948. The figures include temporary and permanent employment relationships.</p>
<b>GRI 403: OCCUPATIONAL HEALTH AND SAFETY (GENERAL DISCLOSURE 2016)</b>			
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	60-61; 80-81	<p>Valio does not report country or gender information (unification of information gathering in progress)</p>
<b>GRI 404: TRAINING AND EDUCATION (GENERAL DISCLOSURE 2016)</b>			
404-2	Programs for upgrading employee skills and transition assistance programs	57-58	
<b>GRI 419: SOCIO-ECONOMIC COMPLIANCE (GENERAL DISCLOSURE 2016)</b>			
419-1	Non-compliance with laws and regulations in the social and economic area	Annual Report and Financial Statement 2	

# DAIRY AND FOOD COMPANY OWNED BY FARMERS

We create wellbeing and taste experiences, sustainably. Our products are made from clean Finnish milk and other ingredients. We have exports to around 60 countries.

## PERSONNEL 31 DEC 2019

Finland	3,152
Baltics (Estonia)	473
Russia	416
Sweden	57
USA	32
China	30

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<b>Total</b>	<b>4,160</b>
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### Valio Ltd (Finland)

Group headquarters: Helsinki  
12 production plants around the country

### Valio Sweden

Headquarters: Stockholm



### Valio Russia

Headquarters: St. Petersburg  
Production: Ershovo

### Finlandia Cheese

Headquarters: Parsippany,  
New Jersey



### Valio Baltics

Headquarters: Tallinn  
Production: Võru and Laeva



### Valio China

Headquarters: Shanghai

**THE MOST INNOVATIVE  
DAIRY AND FOOD COMPANY IN THE WORLD**



FOUNDED IN  
**1905**



NOBEL PRIZE IN  
CHEMISTRY

**4,700**  
DAIRY FARMS  
OWN VALIO

ALL PROFITS  
**FOR THE  
FARMS**



**MILK THAT'S  
AMONG THE  
CLEANEST IN  
THE WORLD**



**ZERO  
TRACES OF  
ANTIBIOTICS  
IN MILK**

EMPLOYEES  
AROUND  
THE WORLD  
**4 000**



**12** PLANTS  
IN FINLAND,  
**2** IN ESTONIA,  
**1** IN RUSSIA

**1.8  
BN**

TURNOVER



EXPORTS TO OVER  
**60**  
COUNTRIES

**TOGETHER  
WE MAKE life  
BETTER**