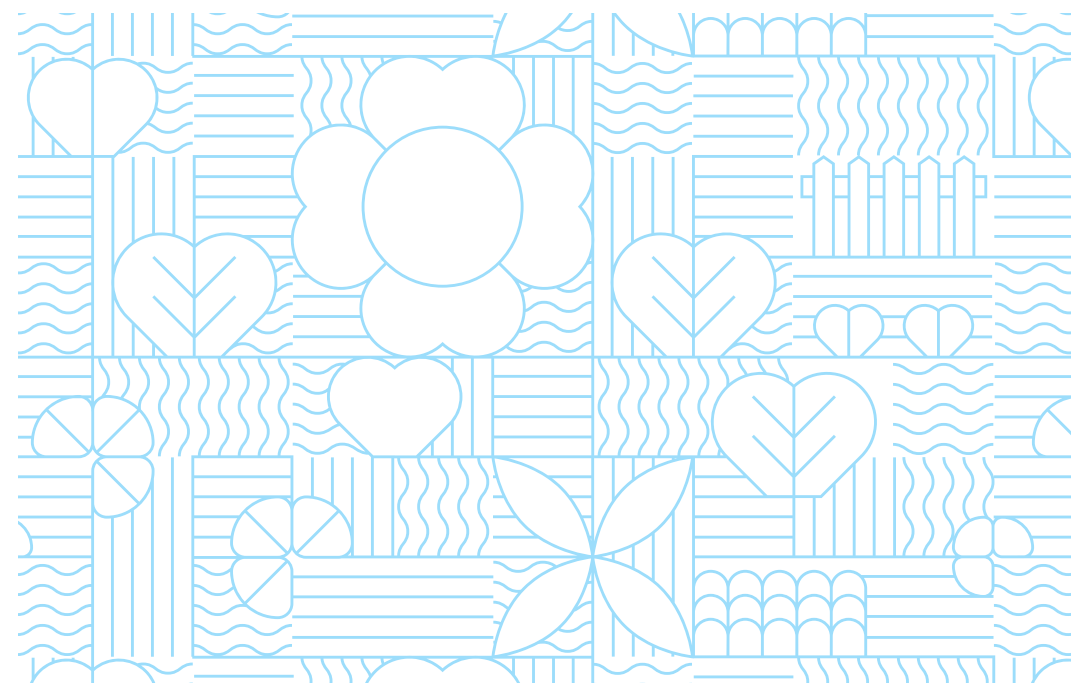


# SUSTAINABILITY REPORT



2021



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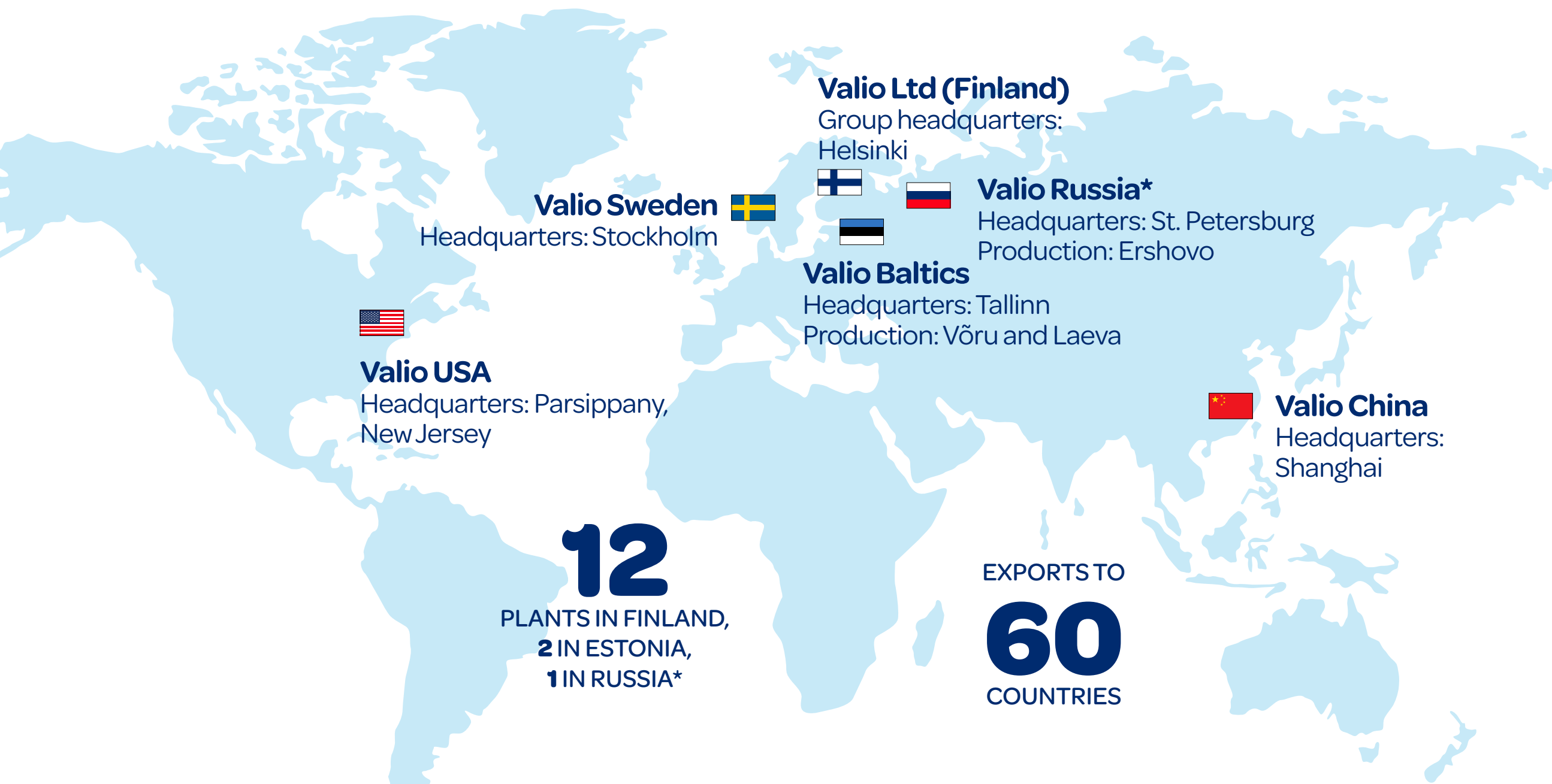


## HOW TO READ THE REPORT

You can browse the contents of the Sustainability Report by scrolling down the pages or by clicking on the links in the top navigation bar and table of contents. Clicking on the Menu icon takes you back to this page.

# VALIO IN BRIEF

Valio is Finland's leading dairy and food company and Finland's biggest exporter of food products. We export raw materials and products to some 60 countries and employ about 4,200 people in Finland and abroad. We are the leader in innovative dairy and food solutions.



## Personnel 31 Dec 2021

FINLAND	RUSSIA*	BALTICS (ESTONIA)	SWEDEN	USA	CHINA
3,583	453	433	63	31	23

\*Valio sold its Russian operations 25.4.2022. With the transaction, Valio's operations in Russia have ended.

FOUNDED IN **1905**

**Milk** that's among the cleanest in the world



**1.9 bn** TURNOVER

**Nobel prize in chemistry** IN 1945



**No unnecessary antibiotics**

**We pay all profits to the farmers**

**4,000** DAIRY FARMERS OWN VALIO

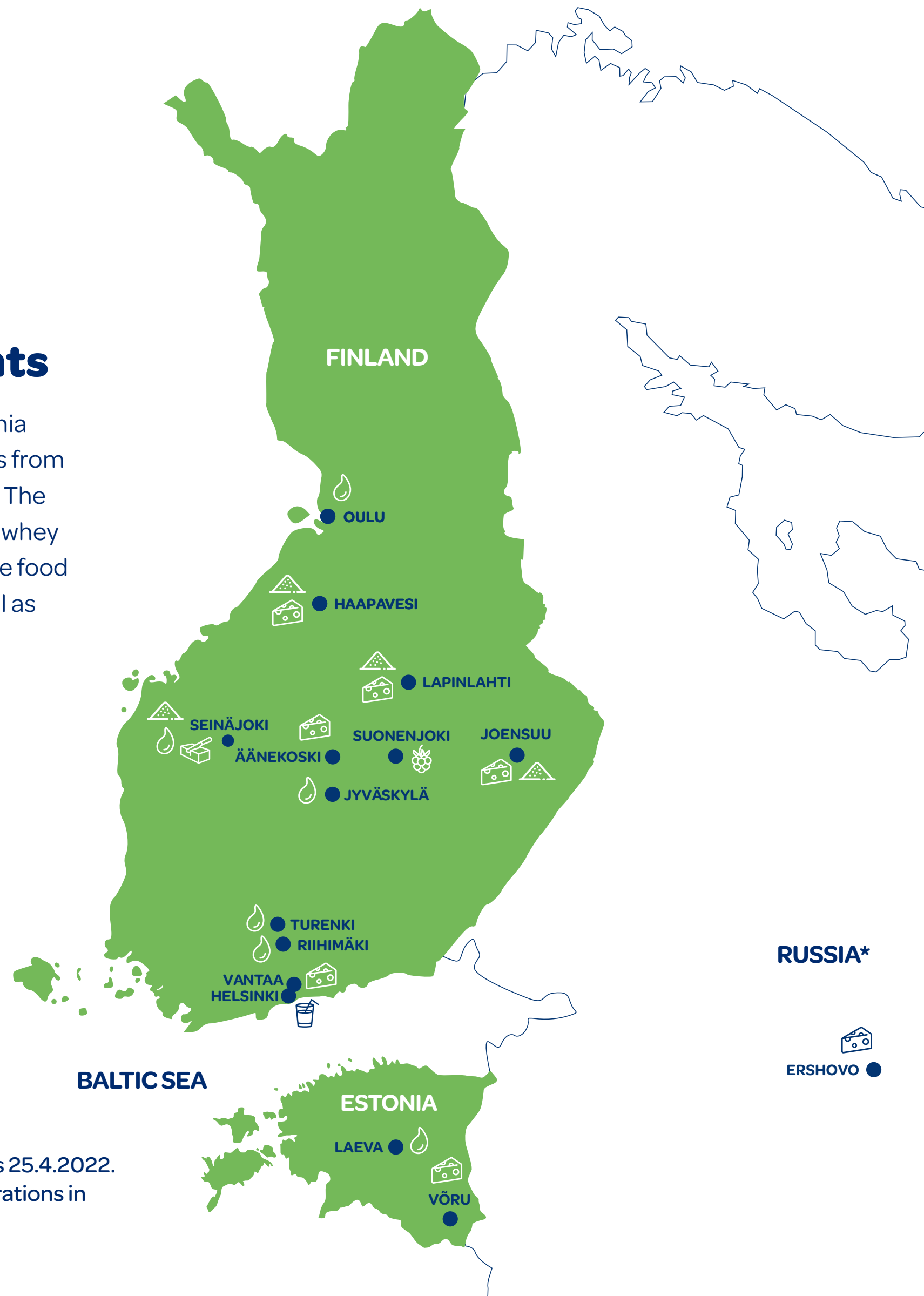
EMPLOYEES AROUND THE WORLD **4,586**

**TOGETHER WE MAKE life BETTER**

## Valio's production plants

Valio has plants in Finland, Estonia and Russia\*. We export products from Finland to roughly 60 countries. The majority of exports are milk and whey powders as a raw material for the food and baby food industries, as well as butter.

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



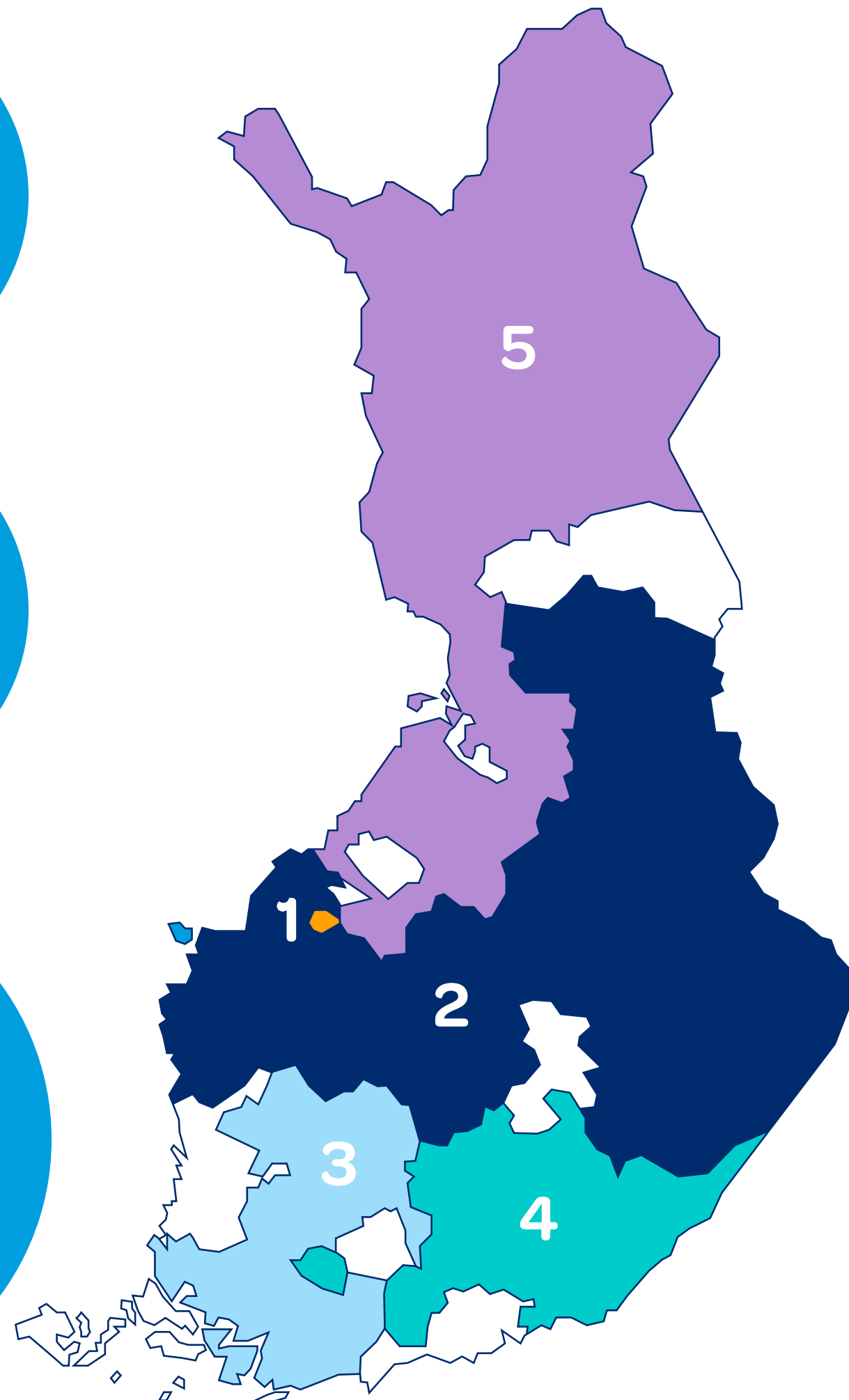
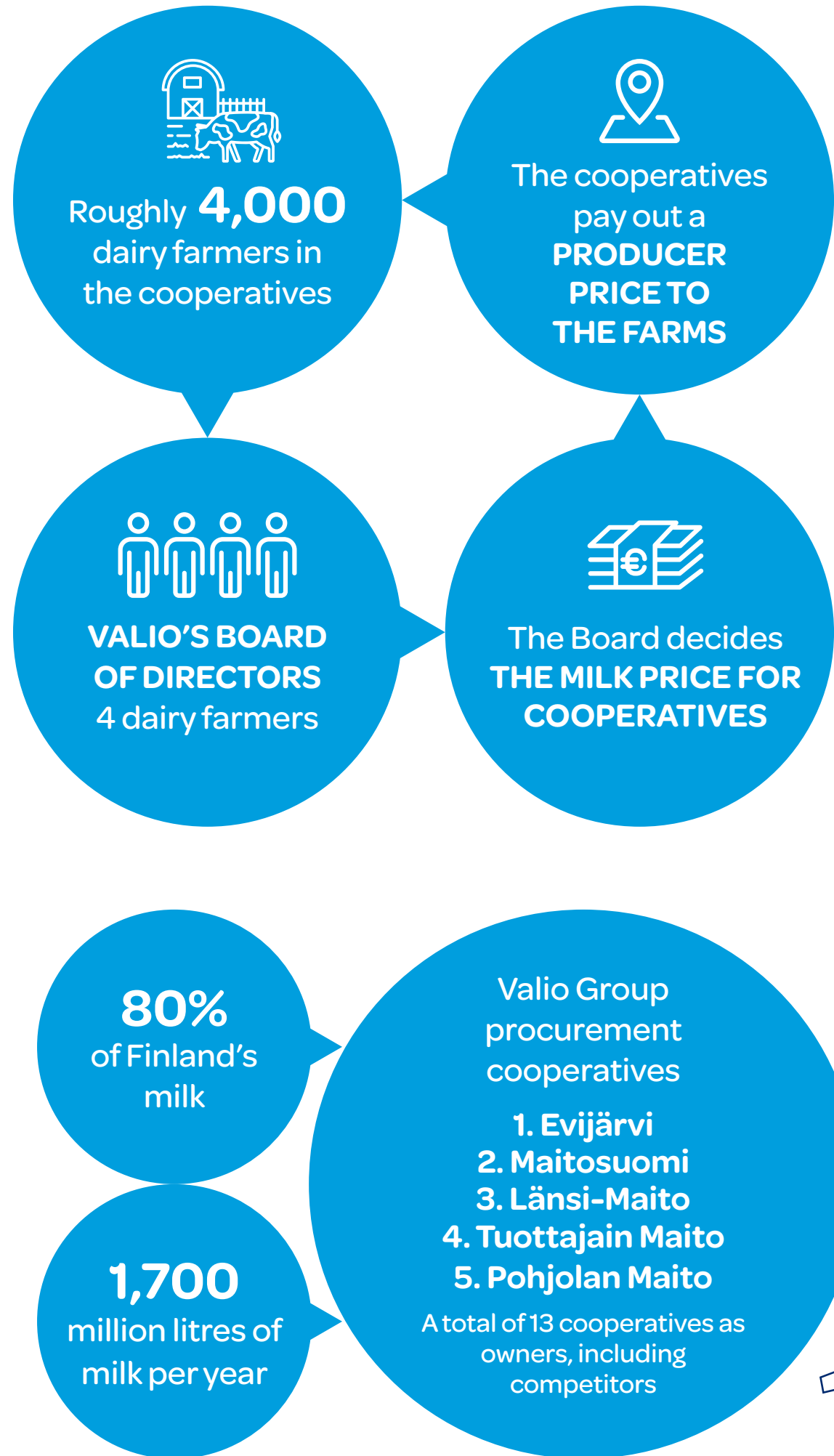
\*Valio sold its Russian operations 25.4.2022. With the transaction, Valio's operations in Russia have ended.



## Together we make life better

Valio's history dates back to 1905 when Finnish dairy farms established the company to export butter. Ever since, our operations have been guided by the need to develop functional and healthy food products for everyday life. This is still reflected in Valio's mission: "Together we make life better". A pioneering spirit and innovative products have been the drivers behind the company's success, which was boosted when Nobel Laureate A. I. Virtanen headed Valio's laboratory.





Dairy farmers belong to cooperatives, which own Valio.

## Valio is owned by Finnish dairy farms

About 4,000 Finnish dairy farmers own Valio through regional cooperatives. We pay out all our profit to the dairy farmers through these cooperatives. When a consumer chooses a Valio product, the profit is sure to go to the milk producer. Purchasing Valio's products also contributes to employment throughout Finland. Dairy farmers employ veterinarians, relief workers, feed producers, machine manufacturers and service technicians, barn builders, earthwork subcontractors and others.

We provide many services to our owners, for example to support animal welfare and milk quality.

[Read more about Valio's governance model. →](#)





## Valio dairy farms produce the majority of Finnish milk

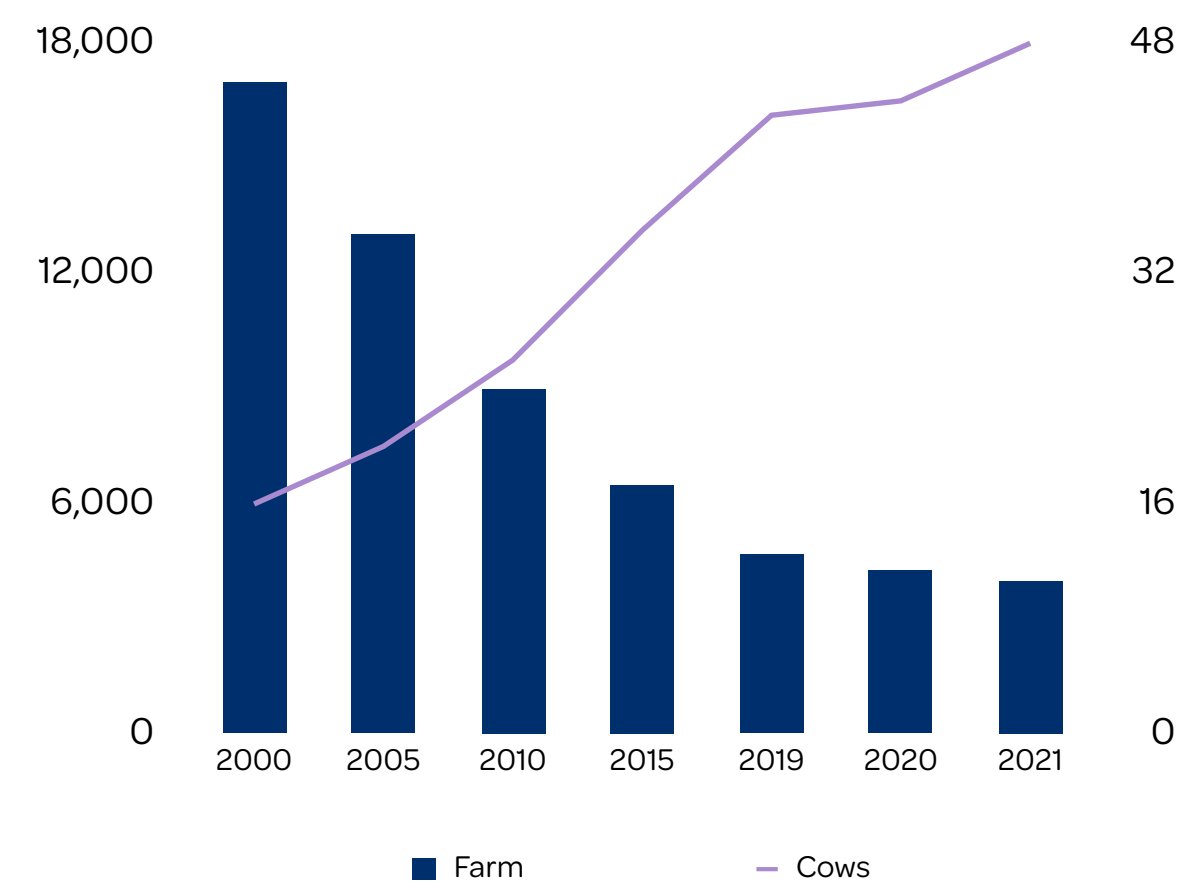
Dairy farm operations were shaken by a cost crisis in 2021. Producers were hit particularly hard by the rising energy, fertiliser and feed prices. There were some 4,000 Valio farms in 2021, i.e. about 300 fewer than in 2020. There were 111 organic producers in 2021. The number dropped slightly from the previous year but has remained around the same level during recent years.

On the other hand, dairy farm size has increased year by year. In 2021, the average number of cows per dairy

farm throughout the country was 48. Finnish farms are relatively small. **The ICAR organisation's** statistics for the Nordic countries in 2020 show that the average number of cows per heard was over 200 in Denmark and 90 in Sweden.

Valio dairy farmers produce about 80 percent of Finnish milk. In terms of securing domestic food production, the vitality of dairy farms and their ability to continue operating in different situations is important.

Number of dairy farmers in Finland and average farm size (year end)



Farmers producing organic milk of the total number of milk producers:

Year	Amount
2000	101
2005	133
2010	106
2015	127
2019	118
2020	113
2021	111



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# Year 2021

# Year 2021 advanced with the new strategy in place

**VALIO STARTED 2021** with a new strategy in place. The Heimon Tukku Oy acquisition, the plans on the production of manure-based biogas with St1 Oy, and the spin-off of the business operations of Valio Oddlygood® plant-based products moved the strategy forward. Alongside those new undertakings, the dairy product business that constitutes Valio's strategic foundation continued to strengthen: in the domestic dairy market we focused on our much-loved consumer brands, and in international markets on value added ingredients for industrial customers. Despite the coronavirus pandemic, we improved our profitability and recorded a good financial performance.

Valio is owned by 4,000 dairy farms through cooperatives that supply raw milk to Valio. The goal of contract production, which was adopted at the beginning of 2021, is to secure the future of dairy farms, as better anticipation of the milk volume is a must.

Our most important goal in the coronavirus pandemic was to secure employee wellbeing and operational continuity. Delivery reliability to customers continuously exceeded 99 per cent the entire year.

Valio Group net sales stood at EUR 1,918 million (2020: EUR 1,808 million), up by 6.1% from 2020. Domestic net sales increased by 10.9 percent, and international net sales fell by 0.7 percent. The milk margin amounted to

EUR 862 million (EUR 861 million), and the milk return stood at 43.7 cents per litre (41.5 c/l).

Because of the coronavirus pandemic, people were cooking a lot at home and retail sales continued to grow. For example, the new Valio PROfeel® puddings set new sales records and Valio Oltermanni® Monterrey Jack cheese and Valio Oddlygood® Barista oat drink cinnamon roll flavour became hugely popular. Eating at restaurants increased in the summer, and then decreased again towards the end of the year. Our HoReCa sales increased considerably, largely boosted by the acquisition of Heimon Tukku Oy in July.

Demand for international industrial products, i.e. butter and milk powder, was strong. The most significant new products launched were Valio Eila® NUTRI F+ powder for the Korean company Maeil Dairies, and Valio Eila® Pro lactose-free skim milk powder as an ingredient for Nestlé's baby food powder.

[Read more about our business development in the Financial Statements. →](#)

## **WE SECURE THE LIVELIHOOD OF OUR PRODUCERS**

Agriculture faced a drastic cost crisis in 2021 and it continues today. The increased price of fertilisers, energy and animal feed put heavy pressure on dairy farms' finances. Our successful business operations allowed us to keep the raw milk price paid to the cooperatives higher



than the average European price. In April 2022, the basic raw milk price paid to the cooperatives was 8.5 cents higher than in the previous year.

## **SCIENCE-BASED CLIMATE TARGETS**

Our goal is to cut the carbon footprint of milk to zero by 2035. Valio's science-based targets for reducing greenhouse gas emissions received approval from the Science Based Targets initiative (SBTi).

In early 2022, we established a joint venture with St1 Oy: Suomen Lantakaasu Ltd will use farm manure to produce biogas to fuel heavy vehicles. We are reducing transportation emissions, creating new business for dairy farms and increasing energy self-sufficiency.

Dairy farms can now use the Valio Carbo® Farm Calculator to help them measure their own carbon footprint and find ways to reduce it. Finland's first milk truck powered by biogas made from manure started operating.

## **WE WILL EXPAND THE SUSTAINABILITY PROGRAMME**

As of the beginning of 2021, all dairy farms meet Valio's sustainability criteria for animal welfare. In 2023, we will expand the sustainability programme to additionally cover measures related to grazing, climate and biodiversity.

## **YEAR 2022**

The year started in a way we could never have imagined. The war in Ukraine is causing tremendous human suffering. It also has global ramifications for the food system and energy supply. Global cost increases are directly reflected in dairy farm and Valio's production costs. Ensuring access to domestic food and security of supply is especially important right now.

We at Valio will continue to work in this exceptional situation, guided by our strategy. Valio's strength is that milk, the most important ingredient of our products manufactured in Finland, is produced locally, at Valio's owners' dairy farms. Products are manufactured in 12 plants which helps ensure the security of supply.

We are grateful for the good collaboration and solution-focused, forward-looking spirit of all Valio employees, the dairy farms, and our customers and partners! We can be proud of the Finnish food chain.

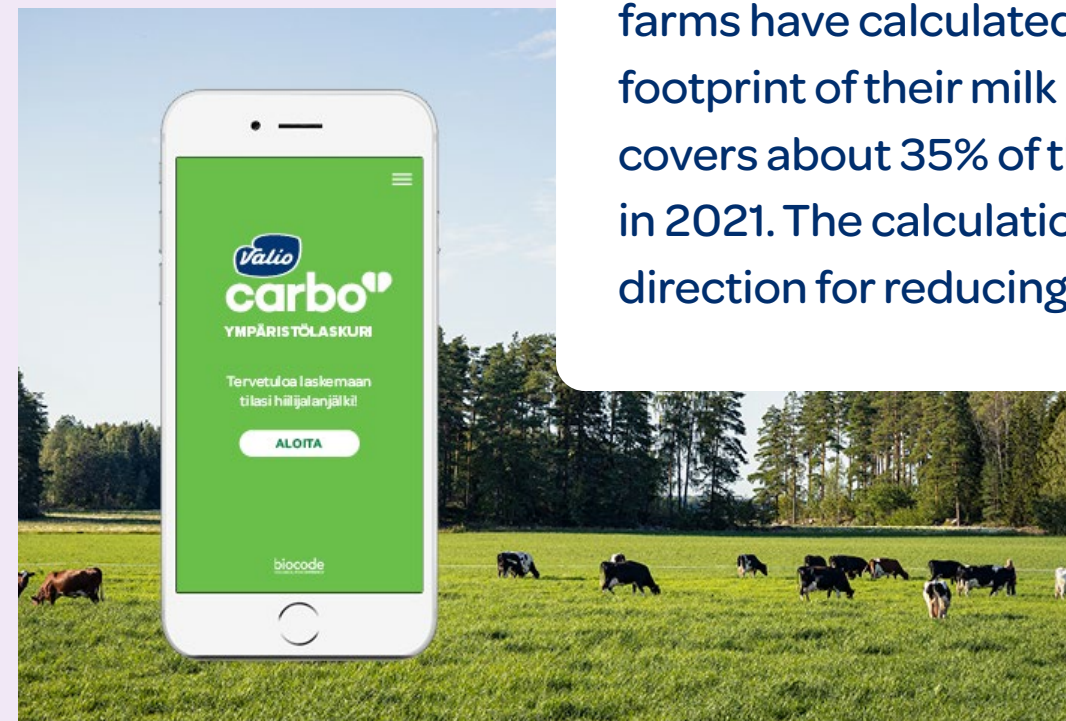
**Annikka Hurme**  
CEO



# Sustainability highlights 2021

## VALIO CARBO® FARM CALCULATOR USED AT 1,100 FARMS

Already about a quarter of Valio dairy farms have calculated the carbon footprint of their milk production. This covers about 35% of the milk received in 2021. The calculation provides direction for reducing emissions.



## 350 FARMS TRAINED IN CARBON FARMING

Climate change can be slowed also by using carbon farming practices to increase the carbon binding of fields. We arrange carbon farming training for dairy farmers to help promote more climate-smart farming and food production.



## LAUNCH OF CARTON CUPS FOR YOGHURT

By switching to board-based yoghurt cups, Valio is reducing plastic use by 67 per cent compared to the corresponding plastic cups. The first products with the recycle-ready cups have been launched.



## COOPERATION BETWEEN VALIO AND ST1 STARTED

The aim is to produce renewable biogas as transport fuel using dairy farm manure and agricultural by-products. Using biogas in heavy transport can bring significant emissions reductions and strengthen Finland's energy and fuel self-sufficiency.



## SLICED CHEESE PACKAGING USES 55% RECYCLED PLASTIC

We are reducing the use of virgin, oil-based plastics by switching to recycled plastic for example in sliced cheese packaging. Currently, recycled plastic, e.g. returned deposit bottles, accounts for 55% of Valio's sliced cheese packaging.

## NASEVA CERTIFICATION

Valio's dairy farms belong to the Centralised Health Care Register for Finnish Cattle Herds, Naseva, which received ISO 9001 certification in June 2021. The certification indicates that the dairy farms are working proactively and systematically to promote animal health, welfare and food safety.

## NUTRITION COMMITMENTS ACHIEVED

People want food to be sustainable, climate-friendly, healthy and easy. Valio's nutrition commitments help with everyday meal planning by offering recipes for different occasions and needs. For example, we have doubled the number of Heart Symbol recipes for professional kitchens.

## MIELI RY'S WORKPLACE WITH A GOOD FEELING' DESIGNATION

The MIELI Finnish Association for Mental Health recognised our commitment to supporting mental health by designating Valio as a Hyvän mielen työpaikka® (Workplace with a Good Feeling).



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# Valio's direction



# STRATEGY AND OPERATING ENVIRONMENT

We implemented our new strategy in 2021. Our strategy is based on the changes and future scenarios we have identified in the operating environment.

## Our strategy

Our vision is to be the leader in innovative dairy and food solutions. Innovativeness and renewal are reflected not only in our product development, but in everything we do. Our values are Consumer and customer focus, Responsibility, Renewal, and Collaboration. We have the expertise to develop high-quality solutions for our customers' needs, and, in fact, our mission is "Together we make life better". Our most important asset is our committed and capable Valio people who turn innovations into solutions and implement the strategy in their daily work.

In line with our owner strategy, ensuring the livelihoods of dairy farmers in the different parts of the country is a priority. Our target is to pay a producer price that is at the level of the best cooperative dairies in Europe. We have succeeded in this throughout the 2000s. The amount of the producer price depends on how well Valio products have been selling and their profitability. The producer price is paid to dairy farmers through the cooperatives.

Valio's top management and the various functions work together on the updating and the implementation of the strategy. Valio's Board of Directors approves the strategy. Daily operations are guided by, e.g., sustainability-related policies and targets, which are approved by Valio's Executive Board.

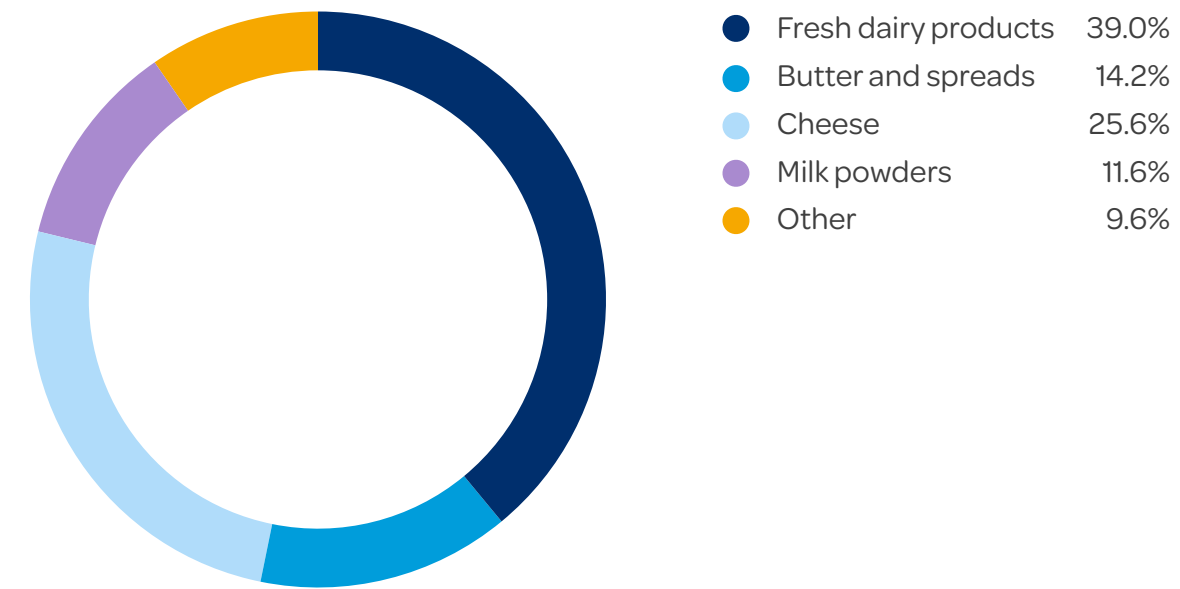
**STRATEGY IMPLEMENTATION**

**ADVANCED AS PLANNED**

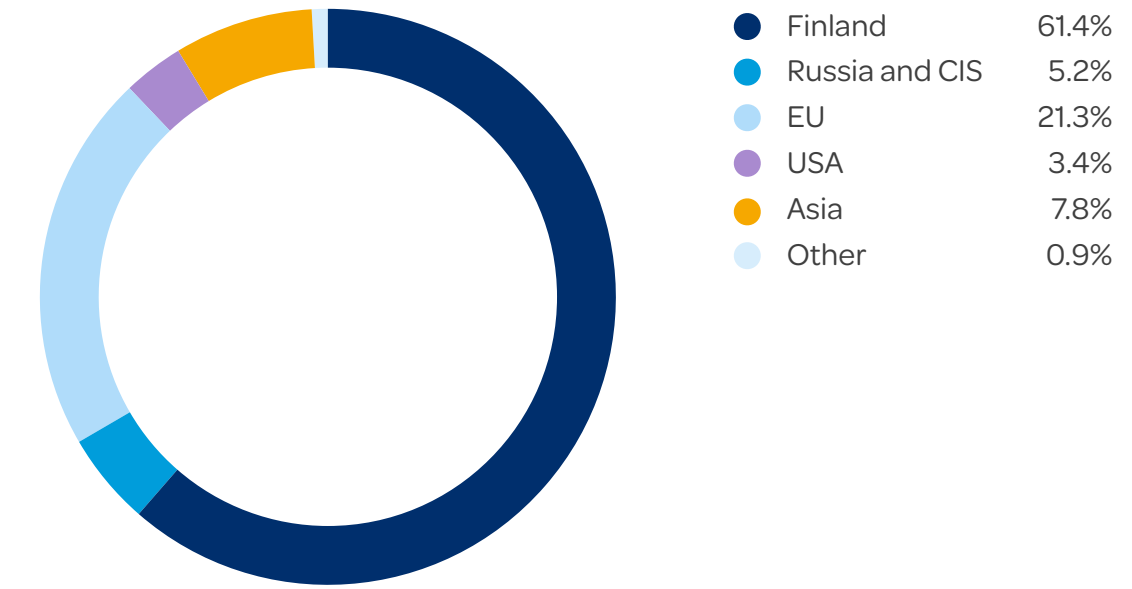
2021 began with a new strategy. We implemented the strategy by, among other things, acquiring Heinon Tukku, signing a letter of intent with St1 about the production of manure-based biogas, and spinning off the business operations of the plant-based Valio Oddlygood® products. Alongside these new openings, our strategic cornerstone – business centred on dairy products – further strengthened: in Finland we focused on beloved consumer brands, and globally on value-added ingredients for industrial customers. Despite the coronavirus pandemic, we improved our profitability and achieved a good financial performance.

[Read more details about the progress of the strategy in the Board of Directors' Report. →](#)

Valio Group net sales by product group, 2021



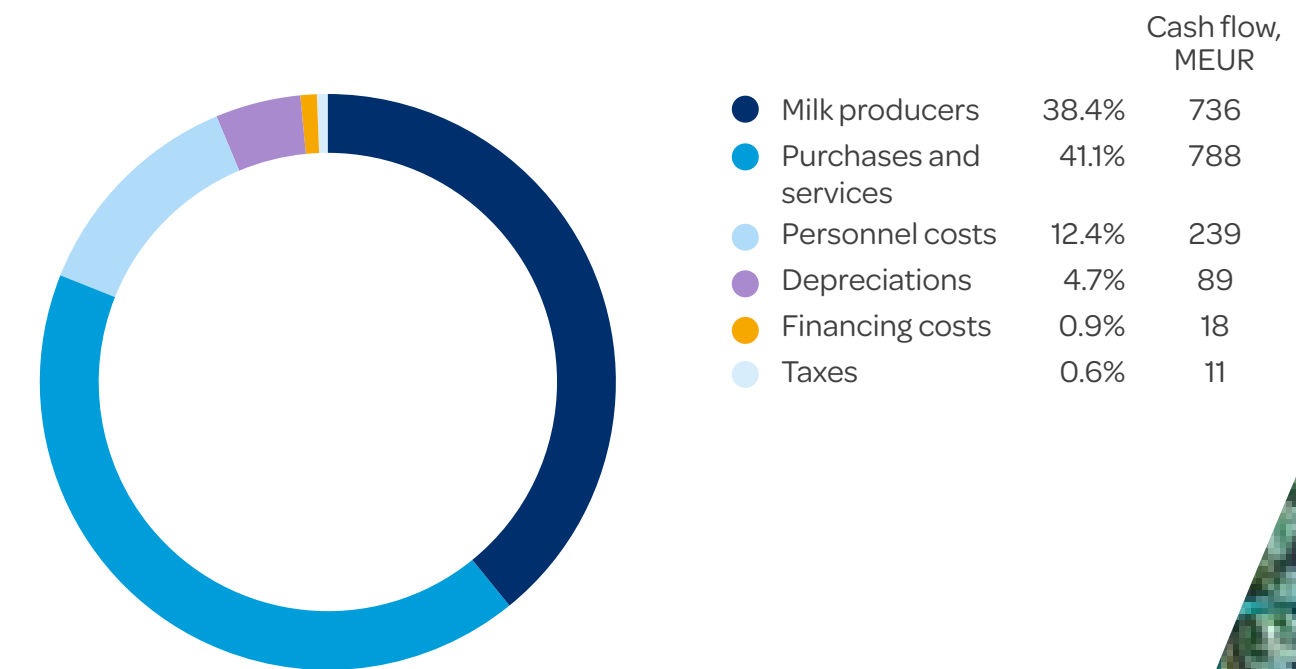
Valio Group net sales by area, 2021



**Valio's strategy**

<b>WHAT GUIDES OUR ACTIONS?</b>	<b>MISSION:</b> <i>Together we make life better</i>	<b>VISION:</b> <i>Leader in innovative dairy and food solutions</i>	<b>VALUES:</b> <i>Consumer and customer focus, Responsibility, Renewal, and Collaboration</i>	
<b>WHAT ARE OUR STRATEGIC TARGETS?</b>	OUR PROFITABILITY: <i>is among the best and we are the most wanted partner for our customers</i>			
<b>WHAT IS OUR COMPETITIVE ADVANTAGE?</b>	Committed and capable Valio people turning innovations into solutions			
<b>WHAT IS OUR PLAYFIELD?</b>	<i>Dairy centered business in home markets</i>	<i>Global ingredients and solutions</i>	<i>Food in selected markets</i>	<i>Exploration businesses</i>

Distribution of expenses in Valio Group, 2021





## Operating environment and trends

We are an international food sector player; our business is impacted by the global operating environment and the milk market situation as well as by domestic demand and competition.

### KEY FACTS ABOUT THE OPERATING ENVIRONMENT IN 2021

- Dairy products remain part of the human diet. Milk consumption declines in Western markets and grows in developing markets.
- Sustainability is more important than ever.
- Role of plant-based diets increases, especially in Western markets.
- Purchasing power in developing countries grows.
- Significance of dairy products grows, particularly in Asian diets.
- Rapid and unexpected changes in the operating environment require more flexibility.
- Food consumption and transportation shifts to new channels.

The operating environment was exceptionally challenging in 2021. The coronavirus pandemic continued for the second year, and the global costs of raw materials,

packaging, energy and logistics grew alongside overall cost inflation. Production costs at dairy farms rose to a record high. The variable costs for dairy farms increased significantly: about 9 cents per milk litre during 2021. The global increase in fertiliser, fuel and energy prices continued into 2022, and the war in Ukraine further accelerated the trend.

In Western countries, consumer interest in plant-based products is growing rapidly, and drinking milk has been on a downward trend for decades. Even though drinking milk has decreased, the consumption of many dairy products, such as cheese, has increased. Globally, however, the overall consumption of dairy products is growing as the population grows. In Asia, for instance, changes in middle-class consumption patterns are leading to higher consumption of dairy products.

At the same time, animal welfare and climate have emerged as important themes. In Finland, there is a growing dialogue about domestic food production: self-sufficiency creates security in foreign trade disruptions, such as during the coronavirus pandemic. Grassland- and cattle-based food production is critical for the security of Finland's food supply. Few food crops thrive in Finland's variable weather, but grass will grow everywhere, even in Lapland. In Finland, cows primarily eat grass.





# VALIO'S SUSTAINABILITY

Food consumption and food production have globally significant impacts on the environment, society, animals and people's lives. We want to do our part in solving global challenges. Responsibility for the environment, the economy, people and society is embedded in everything we do. Valio's cornerstones of sustainability are the cooperative approach, animal welfare and sustainable milk production through which we create jobs and wellbeing in Finland.

## What does sustainability mean to Valio?

We produce healthy food to fuel everyday life and to enjoy, and we bring people together around food. We want to nurture the Finnish food culture, and we take responsibility for Finland's security of supply. We create jobs for thousands of people, and we ensure the preservation of profitable food production in Finland.

Combating climate change is one of our focus areas. Our goal is to cut the carbon footprint of the milk chain to zero by 2035. We improve animal welfare, and we work to increase biodiversity. 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. We reduce emissions, grow carbon sinks and create circular economy solutions.

## Sustainability management

Valio's business strategy outlines the integration of sustainability in all operations and in all markets. Our business strategy is based on the owner strategy to develop sustainable milk production, climate efficiency and a circular economy, and to look after animal welfare. Within the Group Executive Board, Executive Vice President Sustainability and Stakeholder Relations is responsible for sustainability.

The sustainability management model includes decision forums and operative teams for environmental and social responsibility issues as well as for the commercialisation of sustainability. Executive Vice President, Sustainability, coordinates and prepares the business focus areas, which are approved by Valio's Executive Board; the progress of the focus areas is monitored in the sustainability forum.

Additionally, we arrange internal info and training events about sustainability topics. In 2021, we arranged for example events regarding verification of the sustainability of raw materials for the business operations and for procurement, as well as an info briefing regarding the EU's proposed Corporate Sustainability Reporting Directive for the Supervisory Board and the Board of Directors.

A cooperative approach and Valio's shared values, mission and vision are the cornerstones of our operations. Valio's Code of Conduct and other policies, such as our Marketing and Environmental policies, guide our operations. [Read more about Valio's operating principles.](#) →

### ENVIRONMENTAL MANAGEMENT AT VALIO

Valio's environmental team consists of experts from across the organisation, representing environment, climate, energy, logistics, packaging development and compliance. The team leads and coordinates the operational progress of the different areas. Senior Vice President, Climate Programme, chairs the environmental team.

Strategic topics are taken to the Clima forum, which is comprised of sustainability, production, logistics and business leadership, a representative from Valio's Board of Directors, and three Valio Group Executive Board members. The forum is chaired by the Executive Vice President of Sustainability and Stakeholder Relations, who is a member of the Executive Board. When necessary, the Clima forum takes matters to Valio Group's Executive Board or to the Board of Directors.

### SOCIAL RESPONSIBILITY MANAGEMENT AT VALIO

Valio's social responsibility team experts work across the Valio organisation on social responsibility issues, such as occupational safety, food safety, nutrition, human rights and equality. The team leads and coordinates the operational progress of the different areas. The team is chaired by the sustainability manager.

Valio's social responsibility focus areas are described on the right.

## Our social responsibility focus areas: People-centred operations



### SAFE WORKPLACE WITH A GOOD FEELING. OUR TARGETS:

- 0 accidents
- 0 burnouts at work
- Committed Valio people



### TAKING RESPONSIBILITY

- Respect for human rights
- Responsible supply chain
- Stakeholder collaboration



### INSPIRING EMPLOYER

- Values
- Empowering
- Flexible
- Progressive



### PROMOTING HEALTHY LIFESTYLES

- 130+ Heart Symbol products
- Nutrition commitments
- Valio Akatemia® supports youth sports



### WORKPLACE EQUALITY

- Equality
- Non-discrimination
- Inclusive
- Fair



### SAFEGUARDING FOOD SECURITY

- Equality in cooperatives, dairy farms as owners
- Food security in Finland
- Clean and safe raw materials and products
- World-class food safety culture

## Our sustainability work is based on topics of relevance to us

Valio's value chain has many phases that impact the wellbeing of people and the planet, and we have identified them. To define the relevant sustainability topics, we conducted a materiality assessment in 2021. The assessment was carried out in three phases on the basis of the guidelines of GRI standards:

1. We identified the material impacts and topics for us in our operating environment.
2. We assessed the material impacts and topics and took into account the expectations of stakeholders and expert opinions.
3. Valio's management validated the identified material topics.

The assessment drew on our extensive knowledge and materials regarding Valio's impacts on people and the environment as well as on the current and future legal requirements and changes in the operating environment.

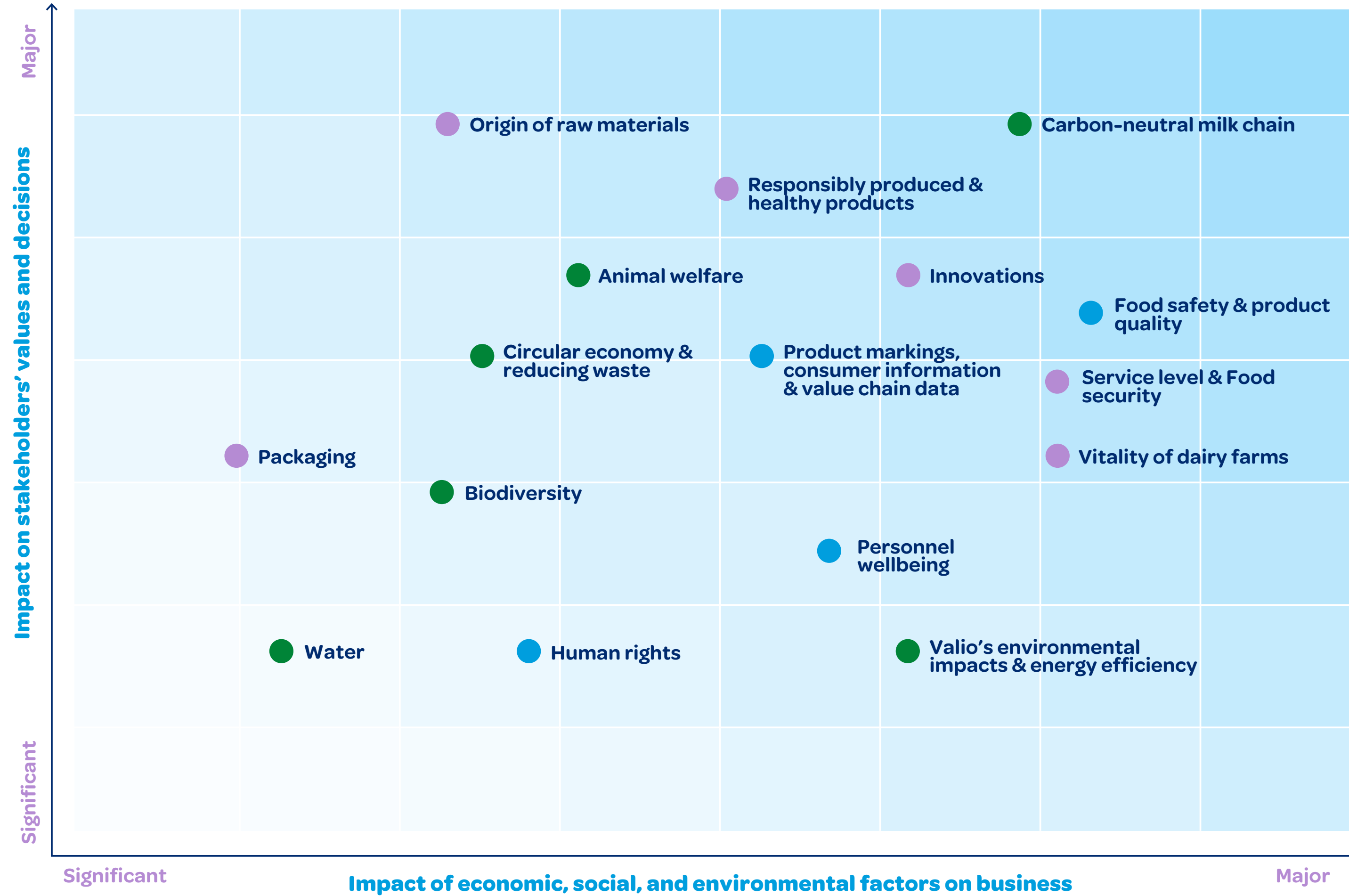
The stakeholder perspective is based on Valio-wide research materials and discussions about the expectations of different stakeholders, the results of the Valio Voice employee survey, and a separate expert survey. [Read more about Valio's stakeholders.](#) → Based on these, a materiality matrix was drafted and circulated for comments among the Valio Executive Board members before final approval in early 2022.





# Materiality matrix

CREATING SUSTAINABLE BUSINESS VALUE



## The UN Sustainable Development Goals

<p><b>Planet and animals</b></p> <ul style="list-style-type: none"> <li>Carbon-neutral milk chain</li> <li>Valio's environmental impacts &amp; energy efficiency</li> <li>Circular economy &amp; reducing waste</li> <li>Biodiversity</li> <li>Water</li> <li>Animal welfare</li> </ul>	
<p><b>People</b></p> <ul style="list-style-type: none"> <li>Personnel wellbeing</li> <li>Human rights</li> <li>Food safety &amp; product quality</li> <li>Product markings, consumer information &amp; value chain data</li> </ul>	
<p><b>Profit</b></p> <ul style="list-style-type: none"> <li>Responsibly produced &amp; healthy products</li> <li>Service level &amp; Food security</li> <li>Packaging</li> <li>Innovations</li> <li>Origin of raw materials</li> <li>Vitality of dairy farms</li> </ul>	

Valio's relevant sustainability topics are strongly linked to the UN Sustainable Development Goals.





## Sustainable business focus areas and targets

Valio's sustainability is based on the company's values of Consumer and customer focus, Responsibility, Renewal, and Collaboration. Based on the materiality assessment, we defined the sustainable business focus areas through which we create wellbeing for society. We also pursue business benefits from the focus areas. We want to be a frontrunner in promoting wellbeing and sustainable lifestyles, in advancing a carbon-neutral food chain and in securing nature's vitality. We have set targets for each focus area and we monitor the progress made.

## Focus areas of sustainable business

- SAFE FOOD AND FOOD SECURITY**
- Purity and origin of raw materials
  - Self-sufficiency, delivery reliability

- PRODUCTS AND INNOVATIONS FOR HEALTH AND WELLBEING**
- Responsibly produced products and product info
  - Nutritional and climate impacts of food, nutrition commitments

- ENVIRONMENTALLY SMART PACKAGING**
- Minimising climate impacts and taking actions towards a circular economy

- PEOPLE'S WELLBEING**
- Employee safety and wellbeing across the value chain
  - Expertise and reliability
  - Committed and capable Valio people

- REGENERATIVE AGRICULTURE**
- Carbon farming training and implementation of practices on farms
  - Vitality of dairy farms

- CIRCULAR ECONOMY AND SUSTAINABLE USE OF NATURAL RESOURCES**
- Use of manure and other by-products
  - Materials reuse and recycling
  - Sustainable energy solutions in production and logistics
  - Water consumption

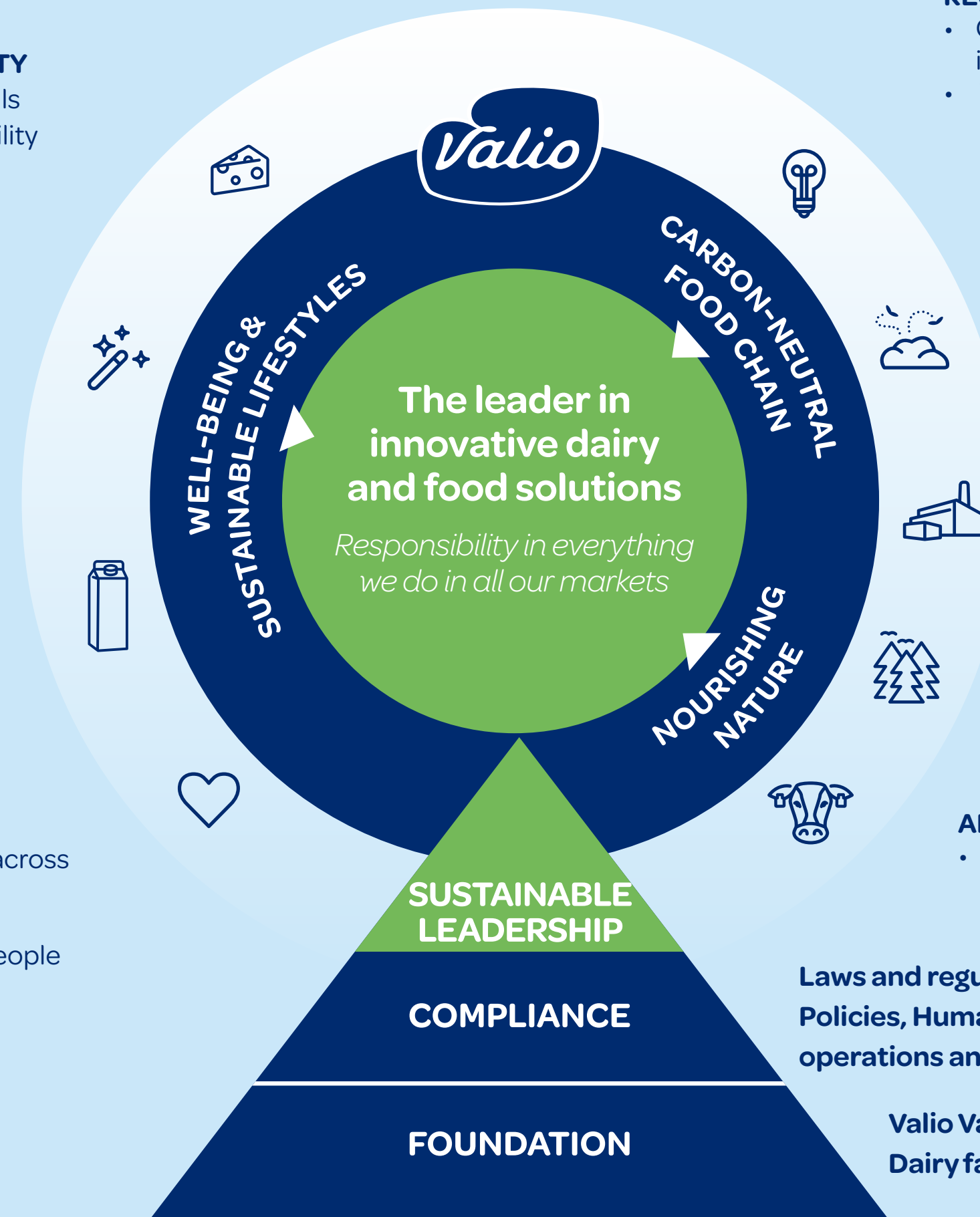
- EMISSIONS REDUCTIONS AND ENERGY EFFICIENCY IN FARMING AND MILK PRODUCTION**

- BIODIVERSITY RECOVERY**
- Biodiversity roadmap

- ANIMAL WELFARE**
- Sustainability programme for farms

Laws and regulations, Code of Conduct, Policies, Human rights, Sustainable operations and Supply chain

Valio Value's, Mission and Vision, Dairy farm cooperatives





FOCUS AREA	VALIO TARGET	PROGRESS IN 2021	STATUS
<b>Regenerative agriculture</b>	<b>2025</b> 1. All Valio farms measure the carbon footprint of their milk using Valio Carbo® Farm Calculator (2021: 1,000 farms).	1. More than 1,100 farms, i.e. about a quarter of all the dairy farms, calculated the carbon footprint of the milk they produced (in 2020).	ON-TRACK 
	<b>2025</b> 2. Train all Valio dairy farms to be carbon farmers (2021: 200 farms).	2. We trained ca. 50 new farms in carbon farming. The target fell short due to Covid-19. In all, about 350 farms have received the training.	DELAYED 
	<b>2030</b> 3. Carbon farming methods are used in all mineral soil fields at Valio farms by 2030.	3. In conjunction with the carbon footprint calculation, 700+ farms reported using carbon farming methods.	ON-TRACK 
	4. Reduce greenhouse gas emissions from organic farmland.	4. We published new cultivation recommendations for agricultural peatlands, supporting the achievement of emissions reductions.	ON-TRACK 
<b>Circular economy and sustainable use of natural resources</b>	1. Create an operation model for biomethane production that is easily accessible for farms and a model that is profitable for all parties involved. The long-term target is that the majority of manure from Valio dairy farms is processed in biogas plants.	1. Valio and energy company St1 signed an agreement to establish the joint venture Suomen Lantakaasu Ltd. Valio and St1 developed a hybrid model in which farms of different sizes can participate in biogas production either by supplying agricultural biomass or by producing biogas in their own biogas plant.	ON-TRACK 
	<b>2035</b> 2. Develop an operating model to improve opportunities to recycle agricultural plastic so that 100% of agricultural plastic from Valio dairy farms is recycled by 2035.	2. The opportunities to recycle agricultural plastics were assessed together with several companies in the plastic recycling sector.	ON-TRACK 

FOCUS AREA	VALIO TARGET	PROGRESS IN 2021	STATUS
<b>Emissions reductions and energy efficiency at dairy farms and production plants</b>	<b>2025</b> 1. Reduce the climate impacts of Valio dairy farms by 30%.	1. Total emissions from milk production decreased by 4% between 2019 and 2021. Valio Carbo® Farm Calculator doesn't yet take into account all climate actions taken by farms.	DELAYED 
	<b>2030</b> Reduce Valio production plant greenhouse gas emissions from electricity and heat energy (scope 1 and 2) by 47%. (Valio Science Based Targets).  2. In line with the Finnish energy industry's Energy Efficiency Agreement, improve Valio's operational efficiency by 7.5% by 2025 (compared to 2015).	2. Production plant emissions decreased between 2019 and 2021: heat energy and refrigerant leaks (scope 1) by 15%, and heat energy and electricity (scope 2) by 27%.  3. By the end of 2021, the total impact of all energy efficiency measures is about 6.5%, i.e. an annual energy savings of 46.3 gigawatt-hours. At this pace, we will exceed our 2025 target.	ON-TRACK   ON-TRACK 
<b>Biodiversity</b>	<b>2021</b> The 2021 target was to create a biodiversity roadmap that brings together a number of individual measures into a target-oriented package.	The biodiversity roadmap was completed in December; it contains three sub-areas: <ul style="list-style-type: none"><li>Dairy farm measures linked to the sustainability programme.</li><li>Valio's measures.</li><li>Consumer and customer measures related to products and campaigning.</li></ul>	COMPLETED 
<b>Animal welfare</b>	<b>2021</b> 1. Valio participated in the effort to certify Naseva (Centralised Health Care Register for Finnish cattle herds). All Valio farms belong to Naseva.	1. ETT ry was granted ISO 9001 certification, which indicates that the Naseva system complies with and promotes the health and welfare of production animals and food safety.	COMPLETED 
	2. At the beginning of the year, all our farms were within the sphere of the sustainability bonus, which we used as a basis for our evolving sustainability programme.	2. The sustainability programme proposal was presented at a dairy farmer seminar in December 2021; it is planned to take effect in 2023.	COMPLETED 



FOCUS AREA	VALIO TARGET	PROGRESS IN 2021	STATUS
<b>Food safety and food security</b>	Safe products: 0 public and customer recalls.  <b>2021</b> Delivery reliability target: 99.3%.	8 recalls (same number as in 2020).  Delivery reliability target of 99.3% achieved, which was a great accomplishment in the exceptional year of Covid-19.	AT LAST YEAR'S LEVEL →  COMPLETED ✓
<b>Products and innovations promoting health and wellbeing</b>	<b>2021</b> Nutrition commitments: 1. Develop nutritionally recommended, environmentally friendly recipes for home cooks.  2. Double the number of Valio's Heart Symbol recipes for professional kitchens.  3. Plate-model images of Valio's everyday recipes to encourage more vegetables in the diet.	1. At the beginning of 2021, we reported that the commitment was successfully achieved.  2. We exceeded our goal by developing 14 new Heart Symbol recipes for industrial kitchens.  3. We have shown 20 of our popular everyday recipes in the plate model format. The images are used in nutrition-related communications on our website.	COMPLETED ✓  COMPLETED ✓  COMPLETED ✓
<b>Environmentally smart packaging</b>	<b>2025-2030</b> We have set challenging long-term targets for single-use packaging made and sold by Valio in Finland:  1. Protects the product (safety, quality, no waste). 2. Towards a true circular economy. 3. Renewable and recyclable materials 100%.	1. We track consumer feedback related to packaging. Measured by microbiological feedback/1 million products sold. 2021: 2.8 ppm.  2. Packages are already now 100% suitable for collection systems (some of which are diverted to incineration): our target is 100% recycle ready packages. 2021: 86%.  3. 100% target means that our packages are made from renewable raw materials ie. fossil-free or recycled materials. 2021: 73%.	ON-TRACK →  ON-TRACK →  ON-TRACK →

FOCUS AREA	VALIO TARGET	PROGRESS IN 2021	STATUS
<b>People's wellbeing</b>	<b>2021</b> We implemented the global Valio Voice employee survey measuring Valio employee engagement, health and wellbeing, and value-based leadership.  Based on the survey, we defined 833 development measures to help us improve our performance.	Targets set for Valio Voice sub-areas.  Based on the 2021 Voice results, our strengths (=we are in the top 10% of benchmark companies): <ul style="list-style-type: none"> <li>Organisational fit 8.0; this measures the compatibility of the employee's and the company's values.</li> <li>Relationship with colleagues 8.5; this measures atmosphere and trust in co-workers.</li> <li>Work load management 7.3. We rank above the industry average, but it's a priority for us and has room for improvement. (Target is 0 work burnout).</li> </ul>	<b>New target will be set for 2022</b>





## Rating systems essential for Valio

Sustainable Brand Index™	Reputation&Trust survey	CDP	EcoVadis
Europe's largest sustainability-focused brand study is conducted by surveying consumer perceptions of the sustainability of brands.	In T-Media's Reputation&Trust survey, consumers name the most reputable Finnish companies.	Valio reports on its climate programme's content, progress, management, and stakeholder cooperation to the international CDP system.	EcoVadis assesses Valio's sustainability and the results are shared with Valio customers.
<b>FINLAND'S MOST SUSTAINABLE BRAND</b> Consumers considered Valio as Finland's most sustainable brand in the 2021 Sustainable Brand Index™ study. In 2021 Valio was ranked as number one for the eighth consecutive year.	<b>VALIO'S BEST-EVER SCORE</b> In the 2021 survey, Valio was the fifth most reputable company, and our score was at an all-time high of 3.88 (3.86 in 2020).	<b>VERIFYABLY STRONG CLIMATE WORK</b> In 2021, Valio received a score of B (programme content and effectiveness), and A- (stakeholder work), on a scale of A-F.	<b>TOWARDS THE TOP</b> Valio improved its result in the 2021 assessment and achieved a bronze medal.





# RESPONSIBLE CUSTOMER AND STAKEHOLDER COLLABORATION

Valio's key stakeholders are dairy farmers (i.e. Valio's owners), personnel, customers, consumers, goods and service providers, as well as societal decision-makers and influencers. Identifying the 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.

## Broad and active dialogue

We want to be transparent and engage in a broad dialogue with various stakeholders through in-person meetings and events, Valio's online service and social media channels, our consumer service, customer and owner magazines, and newsletters. Additionally, we participate in various research and cooperation projects with universities, research institutes and other companies.

## Valued partner for customers

Valio's customers include grocery store chains, restaurants, service stations, the food industry, nutritional service providers, and bakeries. Valio serves professional kitchens and the food industry in Finland and around the world.

It is important for us to be a reliable partner for our customers. We succeeded in keeping the delivery reliability to our Finnish customers above 99 per cent also during the exceptional year. In spite of the global logistical challenges for export deliveries, our reliability was 96.7%. We communicate about product defects or errors, recalls and distribution disruptions openly and quickly.

Our customers gave us excellent ratings in surveys:

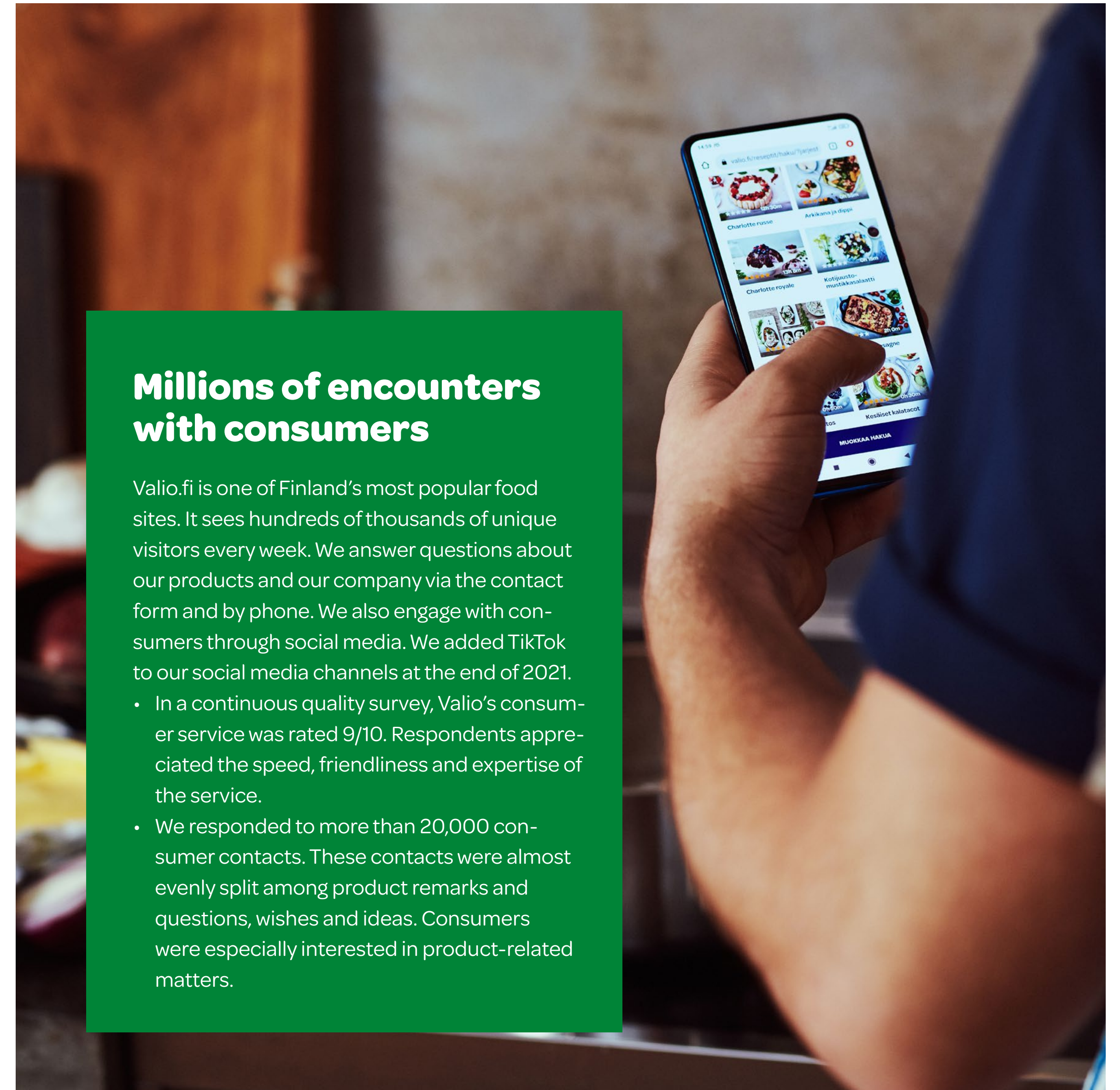
- **Grocery store business:** In 2021, we were number one in Factum's Grocery Central Buying survey, both in our peer group and among 32 fresh-product suppliers. Security of supply, reliability, expertise and responsibility are aspects valued by our customers.

- **Professional kitchens and food industry:** In the 2021 customer satisfaction survey conducted by the Onway consulting firm, Valio's Net Promoter Score (NPS) was excellent and further improved from the previous year to 86 (84 in 2020). Our customers especially value the expertise and good service of Valio employees and the high-quality products.
- **International Food Solutions sales for industrial kitchens:** Our customers value the expertise and good service of Valio employees, and pure and traceable products. Valio Food Solutions' NPS in the 2021 customer satisfaction survey was 59 and further improved from the previous year.

## Millions of encounters with consumers

Valio.fi is one of Finland's most popular food sites. It sees hundreds of thousands of unique visitors every week. We answer questions about our products and our company via the contact form and by phone. We also engage with consumers through social media. We added TikTok to our social media channels at the end of 2021.





- In a continuous quality survey, Valio's consumer service was rated 9/10. Respondents appreciated the speed, friendliness and expertise of the service.
- We responded to more than 20,000 consumer contacts. These contacts were almost evenly split among product remarks and questions, wishes and ideas. Consumers were especially interested in product-related matters.



## National and international advocacy

VALIO'S lobbying and stakeholder cooperation includes open dialogue with decision-makers and other stakeholders. Valio is involved in both European and international dairy industry advocacy. The aim is to ensure that decision-makers have a sufficient understanding of industry-specific aspects and the facts needed to support decision-making. [Read more.](#) →

## Cooperation with organisations promotes expertise and development of sustainability

FIBS	LOGY	SEDEX	BSAG (BALTIC SEA ACTION GROUP)
Through our membership in FIBS Pro, the largest corporate responsibility network in the Nordics, we promote sustainability expertise and collaboration.	We are a member of the Finnish Association of Purchasing and Logistics (LOGY). Through the professional network, we gain knowledge, training, experience, contacts and good practices to promote sustainability in logistics and procurement.	Sedex (Supplier Ethical Data Exchange) is a non-profit organisation that helps its members to promote responsible supply chains. We are an AB member of Sedex. We use Sedex to assess suppliers and to disseminate responsibility information to customers.	BSAG is an independent non-profit foundation working to restore the ecological balance of the Baltic Sea. Valio has collaborated with BSAG since 2019 in the areas of carbon farming and regenerative agriculture. Together we provide carbon farming training to Valio dairy farms.
			



**VALIO AKATEMIA® SUPPORTS YOUTH SPORTS**

Valio Akatemia® supports youth physical activities and wellbeing by awarding stipends and by promoting healthy lifestyles. Since 2013, stipends totalling some 1.2 million euros have been awarded to 2,500 recipients. In 2021, we awarded 300 recipients with stipends totalling about 130,000 euros.

- Cash stipends are intended to pay for things like participation fees.
- Product stipends provide snacks for training or sports travel.
- Event stipends can be used for a sports tournament, e.g.
- Nutritional stipends can be used for nutritional coaching, lectures or cooking classes for individuals or teams. In 2021, we awarded 40 nutritional stipends.

HYÖNNETTY 13.01.2022



Saaja

**Liikunnan Riemu ry - Lasten Liikuntakerho**

Määrä

**3 000€**



Image: Finnish Sports Gala





VALIO'S KEY STAKEHOLDERS	STAKEHOLDER EXPECTATIONS AND TARGETS	RESPONDING TO STAKEHOLDER EXPECTATIONS	STAKEHOLDER INVOLVEMENT AND INTERACTION
<b>Owners</b> (cooperatives and dairy farmers)	Milk price Securing economic viability Carbon-neutral milk chain Animal welfare Local production and employment impacts	Cooperative owner strategy Good governance Sustainable financial operation and maximum profit for producers Primary production services, carbon farming training Carbon-neutral milk chain	Cooperative's meeting Board of Directors and Supervisory Board work Meetings, cooperation forums, events and webinars Valma intranet, 'Maito ja me' magazine
<b>Suppliers of goods and services</b>	Supply relationship, long-term and fair partnership Product origin and quality Operational development Working conditions	Procurement policy and principles Valio's Supplier and Distributor Code of Conduct Supplier and product surveys Assessment of supply chain liability risks	Meetings and collaboration Supplier management procedures Food safety and quality audits Sustainability assessments and audits
<b>Personnel</b> (current and future)	Personnel wellbeing, occupational health and safety Diversity, non-discrimination and equal opportunities Competence development Good management Meaningful work Fair remuneration	Code of Conduct (Our ways of working - One Valio) Personnel strategy, supervisory work and management Equality and non-discrimination plan Recruitment process Responsible corporate culture	Employee satisfaction survey (Valio Voice) Employee info briefings Elected representatives Target and development discussions Recruitment meetings Employer image surveys Valio Whistle reporting channel
<b>Financiers</b>	Responsible economic activity, performance and balance sheet Future outlook Managing sustainability risks Reducing greenhouse gases (climate risks) Reducing food waste	Responsible financing Sustainability programme Science Based Targets for emissions reductions (SBTi)	Meetings with financiers CDP responses Sustainability reporting
<b>Customers</b>	Food safety Carbon footprint of milk value chain Delivery reliability Traceability of origin of raw materials Habitats and biodiversity Reducing food waste Packaging materials and circular economy Wellbeing and nutrition Occupational safety and wellbeing	Sustainability programme Carbon-neutral milk chain Packaging commitments Biodiversity roadmap	Continuous interaction, meetings, customer feedback Customer surveys Sustainability reporting Customer portals Website



VALIO'S KEY STAKEHOLDERS	STAKEHOLDER EXPECTATIONS AND TARGETS	RESPONDING TO STAKEHOLDER EXPECTATIONS	STAKEHOLDER INVOLVEMENT AND INTERACTION
<b>Consumers</b>	Food quality and taste Food safety Food security Animal welfare, ethicalness of animal-based raw materials Reducing food waste Affordability and domestic origin of food Production and origin of raw materials Climate impact of products Packaging and recycling Health, wellbeing and nutrition	Sustainable brand Innovations and product development Nutrition commitments Product labels and consumer information Sustainability programme Packaging commitments	Consumer service, consumer feedback and surveys, consumer information Responsible marketing policy Sustainability reporting Website, social media channels
<b>Organisations</b> (trade union, NGOs)	Climate impacts and biodiversity Animal welfare Respecting human rights Working conditions, occupational health and safety Responsible practices	Sustainability programme work Environmental management system Due diligence process Supplier and Distributor Code of Conduct Human rights assessments and audits	Meetings Sustainability assessments and audits
<b>Trade associations</b>	Economic conditions for domestic production, development of the operating environment Animal welfare Carbon-neutral milk chain	Advocacy and cooperation processes	Memberships, meetings, active participation
<b>Societal decision-makers</b>	Nutrition information Food security Employment through local production Security of supply and food sufficiency	Nutrition commitments	Information and meetings Public affairs newsletter
<b>Media</b>	Social influence and solutions Perspectives on the industry and the future Open interaction	Consistent, regular and honest communication Provision of expertise	Releases Media meetings, interviews On-call mediadesk
<b>Authorities</b>	Food safety Nutrition Animal diseases Environmental impacts Marketing practices	Compliance with permits and anticipation	Meetings Permit process Oversight
<b>Research facilities, universities and scientific community</b>	Nutrition information Environmental impacts of food products Information sharing Apprenticeships and job opportunities	Research collaboration and use of scientific data in product development, innovative work and operational development	Collaboration and participation in projects Visits to Valio Speaking engagements Theses



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**RESPONSIBLY PRODUCED, HEALTHY PRODUCTS** [49](#)

**HEALTHY PEOPLE** [55](#)

**SUSTAINABILITY FOUNDATION** [63](#)

# Focus areas



# CLIMATE, NATURE AND ANIMALS

We are aware of Valio's environmental impacts and we are actively reducing them. Our Climate Programme is aiming for a carbon-neutral milk chain by 2035. We strive for a circular economy, e.g. by developing our packaging and encouraging farms to produce biogas from manure. All Valio dairy farms have committed to our sustainability criteria promoting animal welfare. We pay our producers a sustainability bonus.

## Valio's Climate Programme – towards carbon-neutral dairy

Our goal is to cut the climate impacts of Valio's milk chain 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 dairy farms, in transportation, at the plants, in the manufacturing of packaging and elsewhere along milk's journey from the farm to the grocery store. Our work focuses on reducing emissions, not offsetting them.

While it is an ambitious goal, it is reachable through the collaboration between Valio and its dairy farms, agricultural and energy sector companies, and research institutes. We engage in research collaboration with the Finnish Meteorological Institute, VTT Technical Research Centre of Finland, Natural Resources Institute Finland, University of Helsinki, and others. Valio conducts high-quality life cycle assessment work that aims to measure emissions and emission reductions across the whole value chain – from dairy farms to consumers.

# Carbon footprint of milk, from field to table



## PRIMARY PRODUCTION AT FARM

93%

- 4.5% Fertiliser production
- 4.5% Manure handling: methane and nitrous oxide
- 6% Energy use at farm: fuels and electricity
- 26% Feed cultivation: nitrous oxide
- 49% Cow rumination: methane
- 3% Other inputs

## LOGISTICS AND FACTORIES

5%

- 1.5% Logistics
- 3.5% Energy use at factories

## PACKAGING

2%

## Carbon farming methods sequester atmospheric carbon dioxide into the soil and grow carbon sinks.

We are moving towards our 2035 goal primarily along three paths: We are sequestering more atmospheric carbon into fields, we are using manure to produce biogas, which is a replacement for fossil fuels in transportation, and we are reducing emissions from agricultural peatlands. Towards the end of the chain, the climate impacts are being reduced through energy-efficiency improvements at plants, and increased share of renewable energy, optimised transport routes, eco-friendly packaging, and reduced waste in production, at the grocery store and in the consumer's home. [Read more about the Climate Programme on our website.](#) →

Valio reports about its Climate Programme's content, progress, management and stakeholder cooperation in the international CDP system. In 2021, Valio received a score of B (programme content and effectiveness) and A- (stakeholder work), on a scale of A-F.

About 93% of the carbon footprint of one litre of semi-skimmed milk comes from primary production at farms. About half of this is methane (CH<sub>4</sub>) released from the digestive process of animals and from manure handling. The rest is nitrous oxide (N<sub>2</sub>O, 25–35%), generated in the nitrogen fertilisation of fields, and carbon dioxide from liming fields, energy use at farms and fertiliser production (CO<sub>2</sub>, 15–25%).





## Valio's climate impacts in 2021

**GREENHOUSE GAS EMISSIONS** from Valio's operations in Finland in 2021 were about 2.4 million carbon dioxide equivalent tonnes (Mt CO<sub>2</sub>e) (see table Greenhouse gas emissions from Valio's Finnish operations in 2021). Received raw milk accounted for 82% of this, energy use at production plants 5%, and logistics 2%. The rest of the emissions were related to raw materials used in product production, packaging, waste processing, energy in primary production, personnel travel, and product storage and handling at the grocery store and in consumer homes. The Climate Programme impacts of Valio's other functions are reported in the table Greenhouse gas emissions from Valio's other operations.

Valio has set 2019 as the base year for its climate programme, when the emissions calculation was standardised with the international Greenhouse Gas Protocol. Emissions are reported for the entire value chain – from primary production to the consumer. In 2021, emissions reductions in Valio's Finnish

operations (compared to base year 2019) were as follows: heat energy and refrigerant leaks (scope 1) 15 per cent, electricity and heat energy (scope 2) 27 per cent, received raw milk 4 per cent, and logistics 3 per cent. From 2019 to 2021, Valio Finland's total emissions decreased by about 6 per cent (see page 31: Greenhouse gas emissions from Valio's Finnish operations, 2019-2021).

The Greenhouse Gas Protocol does not currently include the carbon balance of agricultural land, i.e. the carbon emissions and carbon sequestration in the soil. Valio has estimated that carbon dioxide emissions from cultivated fields at dairy farms are about 1,4 Mt CO<sub>2</sub>e, calculated using the Intergovernmental Panel on Climate Change (IPCC) emissions factors. The estimating of soil carbon emissions and carbon sinks will become more accurate as research data increases and calculation guidelines improve. Valio actively participates in related research projects.

### Greenhouse gas emissions of Valio's Finnish operations, 2021

	2021
<b>Scope 1</b>	tCO <sub>2</sub> e
Heat (non-renewable)	63,200
Heat (renewable)*	95,800
Refrigerant leaks	500
<b>Scope 2</b>	
Heat (non-renewable)	16,900
Heat (renewable)*	30,900
Electricity (Market based)**	44,500
Electricity (Location based)**	31,400
<b>Scope 3</b>	
Raw milk***	1,998,600
Other raw materials, packaging and cleaning agents	60,400
Logistics	45,500
Waste	1,800
Work commute and business travel	3,800
Investments, energy production and use of products	197,800
<b>Total</b>	<b>2,433,000</b>

- Scope 1 includes emissions from Valio's own operations
- Scope 2 includes emissions from Valio's purchased electricity and heat
- Scope 3 includes all other indirect emissions from Valio's value chain

Greenhouse gas emissions from Valio's Finnish operations in 2021, as reported under the international GHG Protocol.

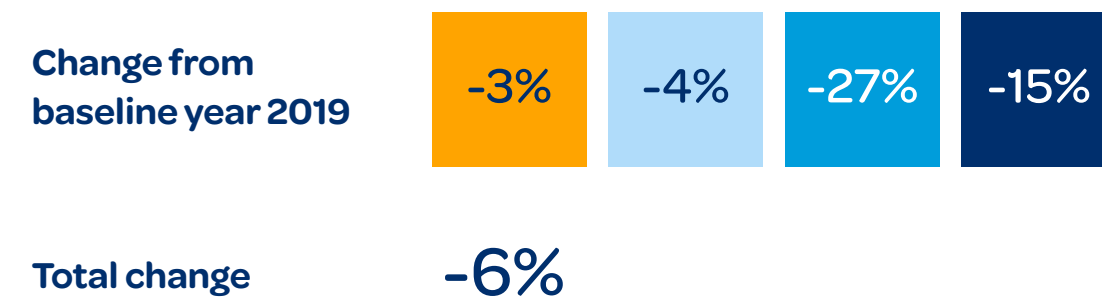
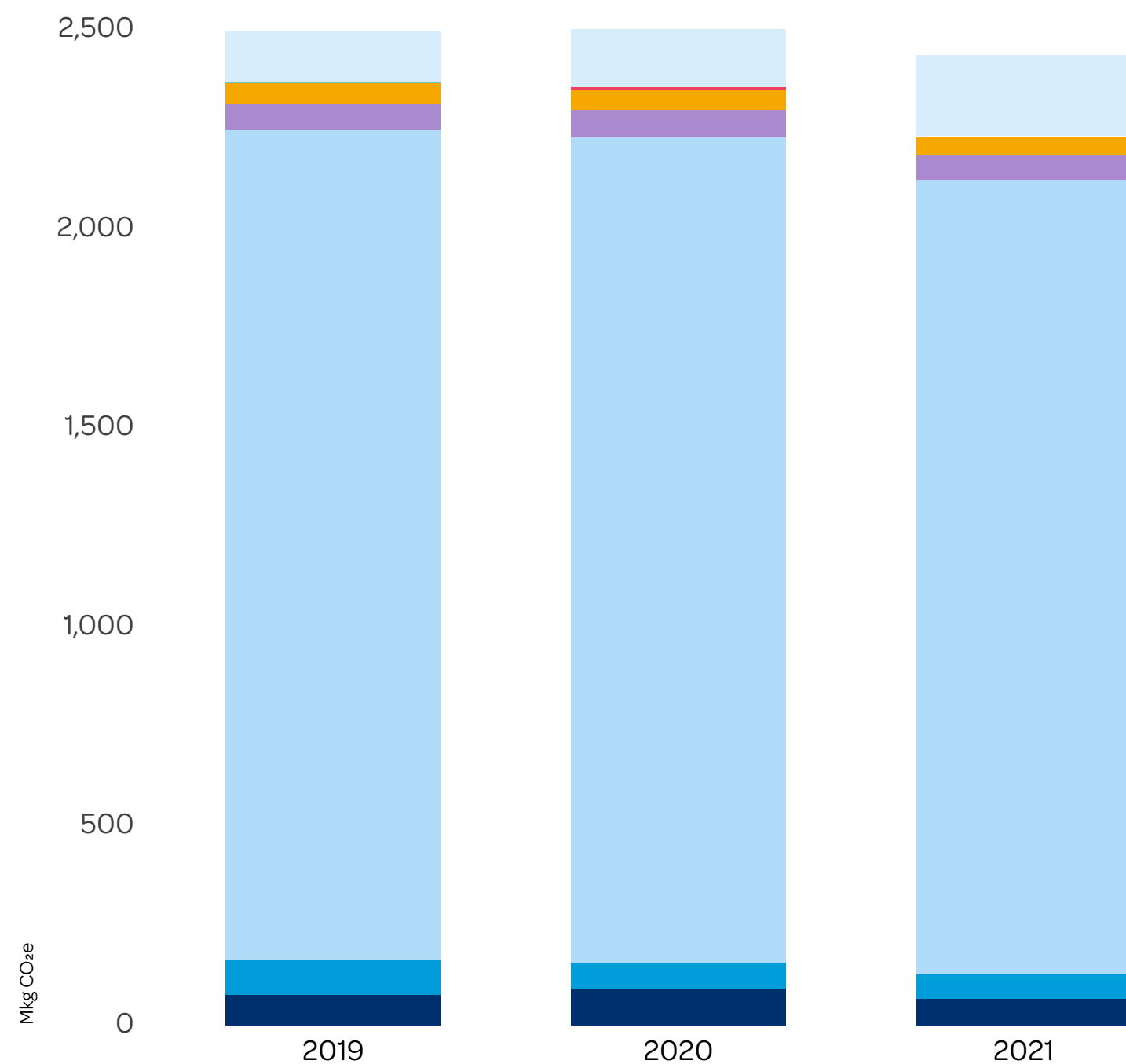
\* Valio's greenhouse gas emissions are reported in accordance with the International Greenhouse Gas Protocol (www.ghgprotocol.org). Accordingly, emissions from renewable energy sources are reported, but are computationally zero.

\*\* Emissions of purchased electricity are reported in Valio's total greenhouse gas emissions as Market and Location based. The Market-based figures are used in total emissions. 20% of Valio's purchased electricity in 2021 was renewable wind power.

\*\*\* Climate impact of raw milk received by Valio in 2021 was based on an accurate carbon footprint calculation of 1,100 dairy farms. This covers approximately 35% of the received raw milk. Coverage is constantly increasing as more dairy farms calculate their own carbon footprint. Valio Carbo® Farm Calculator is used in the calculations, which is based on a certified life cycle assessment model (certified by Carbon Trust in 2019).

## Greenhouse gas emissions and main emissions reductions from Valio's Finnish operations, 2019-2021

Greenhouse gas emissions from Valio's Finnish operations in 2019-2021, as reported under the international GHG Protocol. Emissions reductions are reported relative to 2019, the base year of Valio's Climate Programme. Emissions reductions were achieved across the entire value chain in 2021.



- Heat and refrigerant leaks (scope 1)
- Raw milk\*
- Logistics
- Work commute and business travel
- Heat and electricity (scope 2)
- Other raw materials, packaging and cleaning agents
- Waste
- Investments, energy production and product use

\*The amount of farm-specific carbon footprint calculations of the raw milk received by Valio has increased significantly during 2021. Valio Carbo® Farm Calculator is used in the calculations, which is based on a certified life cycle assessment model (certified by Carbon Trust in 2019). Currently, about 35% of the milk received is covered by the calculation. Based on the updated carbon footprint data, the emissions of raw milk in 2019 and 2020 have also been corrected, which affects Valio Finland's total emissions in 2019 and 2020 presented here.

### Greenhouse gas emissions from Valio's other operations

The climate impacts of Heimon Tukku, acquired by Valio, will be reported for 2021 separately in accordance with the reporting system in use (scope 1 and 2, scope 3 partially) for the time period after the acquisition 1.7.-31.12.2021. Going forward, the emissions will be reported as part of Valio Finland's emissions, and the calculation will be standardised. For Estonia and Russia, direct and indirect emissions (scope 1 and 2) will be reported.

	HEINON TUKKU	ESTONIA	RUSSIA
<b>Scope 1</b>	tCO <sub>2</sub> e	tCO <sub>2</sub> e	tCO <sub>2</sub> e
Heat		7,900	5,800
Refrigerant leaks	40		
Own vehicles	20	1200	
<b>Scope 2</b>			
Electricity (Market based)*	900	13,600	4,600
Electricity (Location based)*	600	6,200	2,100
District heating	400		
<b>Scope 3</b>			
Logistics and travelling	600		
Waste	100		
Packaging materials	0.1		
<b>Total</b>	<b>1,700</b>	<b>22,700</b>	<b>10,400</b>

\*Emissions of purchased electricity are reported in Valio's total greenhouse gas emissions as Market and Location based. The Market-based figures are used in total emissions.

# Climate Programme's most important achievements in 2021

1.

## The decision to establish a new Finnish biogas joint venture was published

In June 2021, the Finnish biogas sector took a big step forward when Valio and energy company St1 announced the start of cooperation. Producing biogas from manure can be financially advantageous for a dairy farm and can significantly mitigate milk's carbon footprint.

The best climate benefit and profitability is achieved when the manure-based biogas is used to replace fossil fuels used for transportation. In 2021, a total of 16 Valio dairy farms processed their manure in biogas plants, four farms were building biogas plants, and dozens of dairy farms expressed their interest in biogas production.

## CASE



## Suomen Lantakaasu Ltd

Suomen Lantakaasu Ltd is a joint venture owned by Valio and the energy company St1. The cooperation spans the entire value chain: Valio's dairy farms have the raw material for production, Suomen Lantakaasu is responsible for the production, and St1 will distribute the liquefied biogas. Both owner companies can also utilise biogas in their own logistics.

Suomen Lantakaasu's target is to annually produce one terawatt-hour of liquefied biomethane for use in heavy road and marine transportation by 2030. The target corresponds to seven per cent of the annual fuel demand of Finnish truck transportation.

The company's biogas production is based on a hybrid model that combines traditional

farm-scale and industrial-scale production. The intent is to use the model in several hybrid plant facilities around Finland. This will make production economically viable and provide wide regional coverage. At the same time, significant emissions reductions can be achieved: annual production of one terawatt-hour would reduce annual agriculture and transportation emissions by a total of 0.6–0.8 Mt CO<sub>2</sub>e.

Initially, some 330 farms would be within the sphere of the first hybrid plant facility. With the current agricultural structure, about 2,600 farms could participate in the company's biogas production by 2030. To achieve large-scale production, it is essential that participation is profitable for all parties involved.

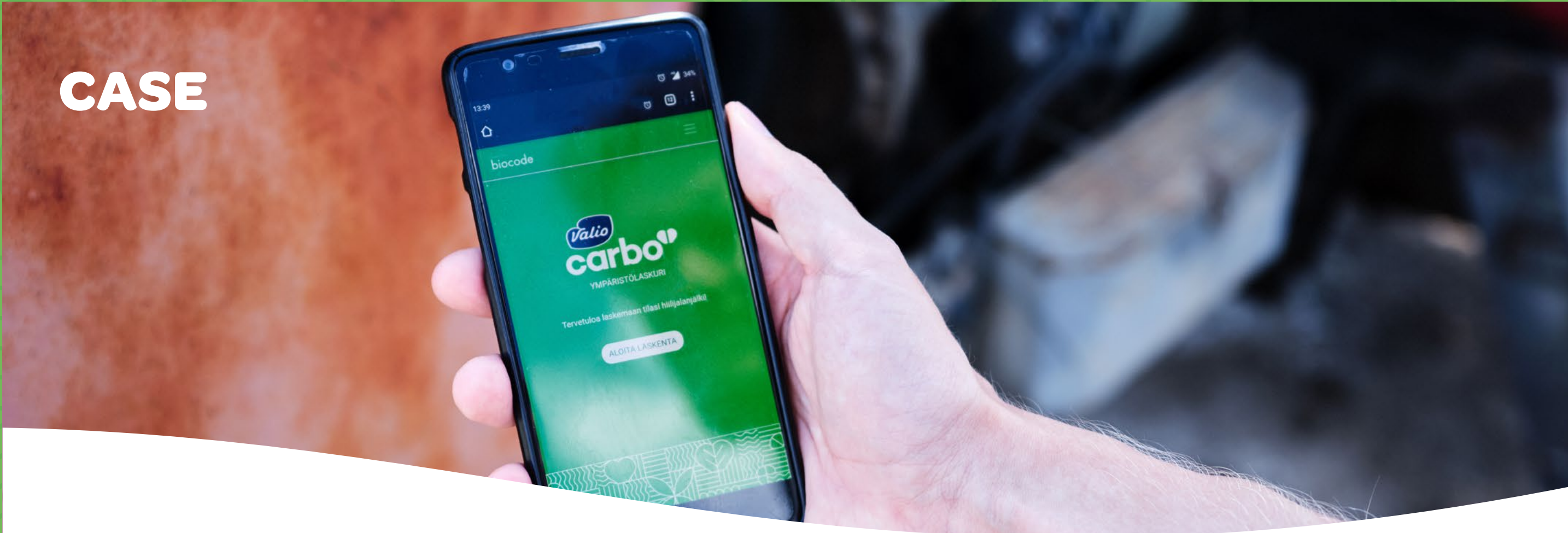


## Over 1,100 Valio dairy farms calculated their milk carbon footprint

2.

The Valio Carbo® Farm Calculator we developed for Finnish dairy farms was launched in October 2020. The calculator gives dairy farmers precise information about the climate and environmental impacts of the farm's raw milk. The calculation model has been certified by the Carbon Trust organisation and is based on the Intergovernmental Panel on Climate Change's (IPCC) recommendations, the European Commission's Product Environmental Footprint Category Rules (PEFRCR), and Valio's own scientific work that started as animal nutrition research 15 years ago. The technology platform was created by the Finnish Biocode.

We have held weekly trainings for farms since October 2020. In 2021, we held more than 80 training events and trained 1,800 dairy farms. Of these, more than 1,100 have reported their own raw milk carbon footprint to Valio. That covers about 35 per cent of the milk received by Valio. When the farm-specific baseline and emissions sources are known, the measures to reduce emissions can be targeted more accurately. Our goal is to decrease farm-level emissions by 30 per cent in five years.



## CASE

### Keskitalo farm, Haapavesi

The Keskitalo farm has been taking part in the Carbo® project's grass pilot for three summers. The target is to increase carbon sequestration of cultivated fields and to optimise the use of nutrients. In summer 2021, the soil's carbon flux was measured at the farm. A carbon flux analyser indicates how much carbon dioxide the soil is sequestering and releasing. The carbon flux measurements will continue in upcoming summers.

"We aim to reduce the soil's greenhouse gas emissions by keeping the grass renewal interval as long as possible. At the same time, however, it is important to maintain the density

of the growth and to do supplemental seedings when necessary. Our goal is always to aim for high yields," says farmer Tuukka Laitila.

The Keskitalo farm's carbon footprint is also being controlled with a new biogas plant, which became operational at the turn of the year.

"Developing the carbon footprint calculation is important so that the climate actions taken at the farm can be made visible. We look forward to seeing how the biogas plant impacts our carbon footprint number," Laitila says.

**Animals:** 195 cows, young cattle ca. 100  
**Barn:** Freestall barn built in 2012 and expanded in 2018; three automated milking stations.

**Pastures:** 320 hectares, two thirds are grass and the rest mixed grains (barley, wheat, and oats). 20 per cent of the pastures are peatland and the rest mineral soil.

**Grass:** Grass species include timothy, clover, meadow fescue, and perennial ryegrass.

**Carbon footprint of raw milk:** 0.96 kg CO<sub>2e</sub>/kg ECM (energy-corrected raw milk).

**3.**

### We developed a national model to calculate the carbon footprint of cattle farms

Valio, Atria and Natural Resources Institute Finland are working together to create a national model to calculate the carbon footprint of cattle farms. The model is based on Valio's previously developed Lypsikki LCA (Life Cycle Assessment) calculation model, which can be used to verify the differences between farms and the impacts that measures implemented at the farm level have on the raw milk carbon footprint. The Lypsikki LCA model is also the engine behind the Valio Carbo<sup>®</sup> Farm Calculator. The end result of the collaboration will be a national calculation model that takes into consideration the special characteristics of Finnish production in calculating the environmental impacts of milk and beef production.

**4.**

### Research on carbon sequestration of fields

We are working with top research groups and other grass chain expert companies in many research and development projects that focus on carbon sequestration of grasslands and efficient grass cultivation. Based on the research results, we have created carbon farming recommendations and a method for which we are seeking independent Gold Standard certification. Our partners include the Finnish Meteorological Institute, Natural Resources Institute Finland, VTT Technical Research Centre, University of Helsinki, University of Eastern Finland, Häme University of Applied Sciences, Yara, known for its fertilizer company Yara and Atria Tuottajat. The Valio-headed Carbo<sup>®</sup> project is one of the joint projects.

**5.**

### We trained more farms in carbon farming

Farmers can improve carbon sequestration by rotating crops, by increasing grass species diversity, and by keeping their fields green year-round. Together with the Baltic Sea Action Group (BSAG), we are training dairy farmers in carbon farming. By the end of 2021, we had provided training to some 350 farms, i.e. nearly 10 per cent of all Valio farms. We are the main partner in BSAG's E-College for regenerative agriculture. The free online course offers farmers and students information about regenerative agriculture and improving the soil health.

**6.**

### Climate-smart cultivation recommendations for Valio farms published

The biggest challenge in cutting milk's carbon footprint to zero is related to the fields that are former swamps or swamp forests that have been drained over decades. These account for about 10 per cent of Finland's arable land, but they produce about half of the agricultural climate impacts. The drainage, tillage, liming and fertilising accelerates the decomposition of peat and releases carbon dioxide into the atmosphere.

Greenhouse gas emissions from agricultural peatlands must be significantly reduced if we are to achieve our target of a carbon-neutral milk chain. We are actively involved in projects studying boreal agricultural peatlands' climate impacts and ways to reduce their emissions, such as the Climate change mitigation in organic soils

on cattle farms (OMAIHKA) project and the Lower-emission grass rotations on cultivated peatlands (VÄPÄ) project. Several Valio farms are participating in the projects; the release of greenhouse gases from their agricultural peatlands are measured around the year and farming methods that reduce emissions are tested.

Based on the study results, in 2021 we published farming recommendations that aim to mitigate the climate impacts of agricultural peatlands at Valio dairy farms. It is recommended to cultivate grass instead of annual crops. Reducing soil tillage, extending the period of grass rotation, and raising the groundwater levels decelerate the release of carbon from soil.

### Preparations made for pilot on methane emissions-reducing feed additive

The Dutch company DSM has developed a new feed additive that can reduce methane emissions from cattle by about 30%. In 2021, we worked with DSM and A-rehu on a feed trial involving nearly 400 cows. The pilot was implemented in early 2022.

**7.**



New farming recommendations mitigate the climate emissions of agricultural peatlands.

**8.**

### Science Based Targets accepted Valio's climate targets

In early 2021, the Science Based Targets initiative accepted our climate targets. The targets align with the Paris Agreement and aim to limit the climate warming to 1.5°C. We intend to halve the emissions from energy used at production plants and from milk production, and to reduce the emissions from milk collection logistics by at least one third by 2030. In addition to the shorter-term targets, Valio's Climate Programme aims for a carbon-neutral milk chain by 2035.



## Resource efficiency and environmental impacts of production

**THE PRACTICES** for calculating environmental indicators at Valio's plants in Finland, Russia and Estonia vary due to, for example, regulatory guidance in these countries. In this section, we present the 2021 environmental data to the extent that the data are in a comparable form.

### ENERGY EFFICIENCY AND RENEWABLE ENERGY SOURCES

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.

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 per cent from the 2015 level. So far, the combined impact of the energy-efficiency actions accounts for about 6.5 per cent of our 2015 energy consumption, i.e. an annual energy savings totalling 46.3 GWh. We will exceed the target, if we will continue at this pace.

### Energy consumption by source in Finland

	UNIT	2017	2018	2019	2020	2021
Consumption of heat	GWh	485	499	499	494	491
Peat	%	42	36	27	35	25
Heavy fuel oil	%	4	0	0	0	0
Light fuel oil	%	3	6	6	5	9
Natural and liquid gas	%	10	12	10	10	10
Renewable fuels	%	40	47	55	48	56
Domestic fuels	%	81	83	83	83	81
Consumption of electric energy	GWh	225	239	238	243	237
<b>Total energy consumption</b>	<b>GWh</b>	<b>710</b>	<b>738</b>	<b>730</b>	<b>737</b>	<b>728</b>



**Energy consumption at Valio's production plants, 2021 (MWh/a)**

	FINLAND	ESTONIA	RUSSIA	TOTAL
Electricity (renewable)	47,871	0	0	47,871
Electricity (non-renewable)	188,086	17,989	6,019	212,095
Electricity (total)	235,957	17,989	6,019	259,966
Heat (renewable)	285,928	0	0	285,928
Heat (non-renewable)	198,041	30,751	7,787	236,579
Heat (total)	483,969	30,751	7,787	522,507
Renewable total	333,799	0	0	333,799
Non-renewable total	386,127	48,740	13,806	448,673
<b>All total</b>	<b>719,926</b>	<b>48,740</b>	<b>13,806</b>	<b>782,472</b>

**Energy consumption at Valio's production plants, 2021 (TJ/a)**

	FINLAND	ESTONIA	RUSSIA	TOTAL
Electricity (renewable)	172.3	0.0	0.0	172.3
Electricity (non-renewable)	677.1	64.8	21.7	763.5
Electricity (total)	849.4	64.8	21.7	935.9
Heat (renewable)	1,029.3	0.0	0.0	1,029.3
Heat (non-renewable)	712.9	110.7	28.0	851.7
Heat (total)	1,742.3	110.7	28.0	1,881.0
Renewable total	1,201.7	0.0	0.0	1,201.7
Non-renewable total	1,390.1	175.5	49.7	1,615.2
<b>All total</b>	<b>2,591.7</b>	<b>175.5</b>	<b>49.7</b>	<b>2,816.9</b>

Energy-efficiency actions in 2021:

- Construction of a flue gas condenser-heat pump system at the Lapinlahti plant and its commissioning at the turn of 2021-2022 .
- Operational development of heat recovery networks.
- Improving the efficiency of heat distribution systems.
- Reducing the process water circulation time of aseptic tanks.
- Installation of LED lighting.

The type and amount of emissions depend on the fuel used. Renewables account for an increasing share of the energy sources we use. In 2021, the share of renewable fuels in our heat production in Finland was 58% (51). Wind power accounted for about 20% of electricity procurement in Finland.

We have performed test runs using solely biofuels in solid fuel fired boilers at our Seinäjoki plant, and we will continue the test use at the Lapinlahti plant in 2022. The goal of the test use is to determine how the boiler plants should be modified so that peat combustion can be discontinued at these plants. In 2021, we decreased the use of peat compared to 2020.



**We acquire more and more energy from renewable sources and improve our energy efficiency. By doing so, we reduce the greenhouse gas emissions of our factories and target carbon neutrality also for them.**

**ENVIRONMENTAL IMPACTS AT PLANTS**

Our activities are guided by Valio's environmental policy and our environmental management system, which has ISO 14001 certification covering Finnish and Estonian operations. We have identified the most significant environmental impacts of our operations, and we are committed to reducing them by continuously improving our operations from a life-cycle perspective. The environmental audits in 2021 did not reveal any substantial shortcomings in our operations. [Read more about the environmental impacts of Valio's operations on our website.](#) →

**Water use in Valio's production plants, 2021 (m<sup>3</sup>)**

	FINLAND	ESTONIA	RUSSIA	TOTAL
<b>Fresh water withdrawal by source</b>				
Municipal waterworks	4,428,646	0	0	4,428,646
Groundwater (own wells)	468,458	581,154	63,710	1,113,322
Surface water (own treatment)	110,691	0	0	110,691
Cooling water from water bodies	2,920,128	0	0	2,920,128
Water recycled and reused	1,484,138	0	n/a	1,484,138

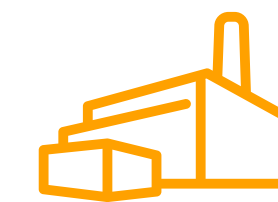
**Wastewater discharge 2021 (m<sup>3</sup>)**

	FINLAND	ESTONIA	RUSSIA	TOTAL
Wastewater to a municipal wastewater treatment plant	5,398,232	0	0	5,398,232
Wastewater to own wastewater treatment plant	0	623,117	0	623,117
Wastewater to own pretreatment and then to a municipal WWTP	0	0	63,710	63,710
Cooling water to water bodies	2,920,128	0	0	2,920,128

In 2021, the amount of wastewater increased and the wastewater load decreased clearly compared to the previous year. The increase in the wastewater volume is linked to the challenges of using recycled water at one site.

**WATER CONSUMPTION AND WASTEWATER**

We monitor our wastewater load and volume by comparing them to the milk volume received. Our target for 2021 was to limit the increase in water consumption to 0.5 per cent relative to the milk volume received and to reduce the wastewater load by 1.0 per cent. We achieved the wastewater load target, but missed the water consumption target. For 2022, we are aiming to keep the wastewater volume at the 2021 level and to reduce the wastewater load by 0.4 per cent relative to the milk volume received. In 2021, the single most significant investment affecting environmental impact management was the investment in a flue-gas condenser at the heat plant of the Lapinlahti factory.



**We use recycled water generated in powder dehydration in areas that don't jeopardise the safety of food products.**

### MATERIAL EFFICIENCY AND WASTE MANAGEMENT

Our goal is to use raw materials and consumables resource-efficiently. The waste management goal is to implement the principle of priority, i.e. to divert as much material as possible for reuse and material recycling. The most significant change in waste management in 2021 was the substantial decrease in the amount of waste going to biogas production. The change was driven by a reduction in waste.

The amended Waste Act that took effect in 2021 and the new waste decree do not significantly impact the waste management of Valio's own Finnish functions, but in the coming years they will have a significant impact on the costs of recycling the packaging of products Valio releases to the markets.

### EMISSIONS TO AIR

The choice of fuels for thermal energy production and the better control of the combustion process were reflected in the decrease in nitrogen and sulphur oxide emissions in 2021. Dust emissions from powder dehydration increased in 2021 because two drying units had difficulties meeting the conditions of the environmental permit. Both units underwent extensive studies and test runs to achieve the permit conditions.

### Raw materials used in Valio's own production plants, 2021 (tn)

	FINLAND	ESTONIA	RUSSIA	TOTAL
Raw milk	1,745,015	224,280	0	1,969,295
Fruits and fruit preparations	10,595	1,712	n/a	12,307
Other raw materials (sugars, salts, vegetable oils etc.)	24,314	369	n/a	24,683
Packaging materials	28,446	2,942	n/a	31,388

### Waste management by type and disposal method, 2021 (tn)

	FINLAND	ESTONIA	RUSSIA	TOTAL
Hazardous waste	124	12	n/a	136
Reuse & Recycling (plastic, metal, glass, paper etc.)	1,763	502	n/a	2,265
Waste to energy	1,092	0	n/a	1,092
Composting and biogas	21,733	5	n/a	21,738
Waste incineration	356	237	n/a	593
Waste to landfill	128	70	514	712

### Nitrogen oxides (NOX), sulphur oxides (SOX) and other significant air emissions, 2021 (tn)

	FINLAND	ESTONIA	RUSSIA	TOTAL
Nitrogen oxides	238	15	n/a	253
Sulphur oxides	104	39	n/a	143
Particles	6	1	n/a	7
Powder dryers, dust emissions	18	0	0	18

## We are reducing waste

**WE HAVE REDUCED** the waste generated in our production through hundreds of development projects during 2019-2021. Reducing waste was part of the 2018 launch of the strategic #2021 programme that aimed to increase the milk return through efficiency improvements, operational development and new profitable business. Our main objective was to reduce waste from the use of milk raw material and from quality defects and operations by 20 per cent over a three-year period.

During the #2021 period, we renewed operational reporting and technological capability, enabling better data management and, e.g., the development of a more real-time milk raw material reporting system. We continued implementing the One Valio approach at plant management events. We trained a lot of quality improvement experts at plants to systematically implement improvement projects to eliminate waste.

Additionally, we built a technology platform for integration with the plant's automation systems, enabling us to obtain and standardise data for use in various applications and to make waste, e.g., a more transparent part of daily management practices. The savings yielded by the projects in the #2021 programme exceeded our target by almost one third. However, changes in the operating environment brought added challenges during the #2021 period, and the set target of a 20% overall reduction in waste was not achieved.

At the beginning of 2022, we published the new strategic #2025 programme; it aims to halve the milk raw material waste, quality defects and the identified wasted time. In 2022, we will continue with improvement projects for the key spearhead project streams and the use of the technology platform in them.



## CASE



## Waste fit for consumption is donated

**OUR PRIMARY OBJECTIVE** is to eliminate waste from our production. If this isn't possible, we want to ensure that all waste is utilised. Food waste not fit for human consumption is diverted to feed and feedstock for biogas production. In 2021, we worked with the various functions to create principles for donating Valio's end products fit for consumption and waste products. These principles help to ensure that food doesn't go to waste and that donating is done responsibly.

The waste products can be diverted to personnel and to charity, for example. The guidelines ensure that the products are properly marked, the food donation activities of the selected partners are responsible and the food safety of the donated products is ensured.





## Logistics efficiency reduces emissions

We optimise our milk collection and distribution routes to avoid unnecessary trips, and we fully load trucks. Milk collection from dairy farms in Finland is carried out by roughly 50 subcontractors and 71 trucks. On average, the trucks were on the road for more than 20 hours per day, every day, in 2021. The average age of the collection fleet is about two years. All the trucks meet the latest EURO 6 emissions standards. Larger trucks are used to reduce emissions. In 2021, the total milk collection kilometres decreased by 6 per cent compared to the previous year.

We distribute more than one third of Finland's temperature-controlled food every year. Joint distribution with other companies reduces the environmental load of product distribution and decreases the number of kilometres driven.

### KEY LOGISTICS FIGURES IN FINLAND

Average trip of milk from farm to dairy is

**79 km.**

Average trip of milk from dairy to grocery store is

**88 km.**

Delivery reliability of products to grocery stores is

**99%.**

A container load of products is exported from Finland every

**20 minutes.**

Our products are exported to roughly

**60 countries.**



## Biogas-powered milk collection

**BIOGAS IS A RENEWABLE FUEL** and its use in our transportation is the circular economy at its best. Using biogas can reduce greenhouse gas emissions from transportation by as much as 85 per cent compared to fossil fuels. In 2021, we had three trucks running on liquefied biogas (LBG). February brought the rollout of the first milk truck running on compressed biogas (CBG) made from manure. Biogas-powered trucks racked up a total of some 900,000 kilometres in 2021. That's approximately 4.4 per cent of total milk collection kilometres. The use of biogas has resulted in a 0.9 MKg decrease in carbon dioxide emissions compared to traditional diesel.

# ENVIRONMENTALLY SMART PACKAGING

## Minimising climate impacts

### Packaging commitments

#### TOWARDS A CIRCULAR ECONOMY AND MINIMISING CLIMATE IMPACT



### PRIORITY AREAS



Our goal is environmentally smart packaging. We are committed to protecting products, to minimising food waste, to using packaging that truly aligns with a circular economy, and minimising climate impacts by using packaging solutions that are made from renewable plant-based or recycled materials. The carbon footprint of Valio's packaging is about two per cent of the product's total carbon footprint.

### GOOD PACKAGING PREVENTS FOOD WASTE

The most important task of packaging is to protect the product, ensure its safety and shelf-life, and thus prevent food waste. In 2021, we further boosted the quality control of the packaging and the packaging process at our production plants.

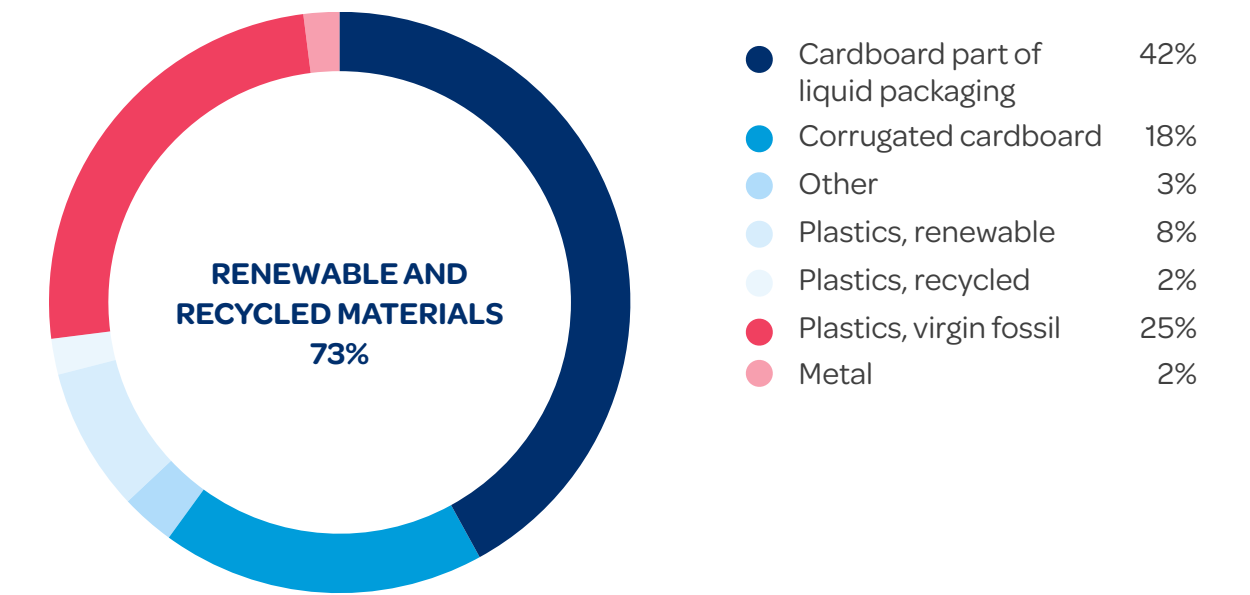
The number of microbiological consumer complaints decreased from the previous year: Of one million packaged products in 2021, only 2.8 units were spoiled by mould, for example; the corresponding figure in 2020 was 3.4.

### RENEWABLE AND CIRCULAR ECONOMY MATERIALS CONSERVE NATURAL RESOURCES

Thanks to renewable plant-based and circular economy-friendly packaging materials, we are conserving natural resources and reducing climate emissions. Our goal is that by 2030 all the single-use packaging materials we manufacture and sell in Finland are made from renewable or recycled materials. [Read more on our website.](#) →

In 2021, about 73 per cent of our single-use packaging materials were made from renewable plant-based or recycled materials. About 28 per cent of the plastic packaging was made from renewable or recycled materials.

### Single-use packaging materials in Finland, 2021 (17.9 MKG)



Renewable or recycled plastics 28%  
Recycle-ready packages about 86%

In 2021, we introduced the first yoghurt cup that can be recycled with cardboard; it has 67 per cent less plastic than an ordinary yoghurt cup. In 2022, we aim to launch several new products packaged in the cardboard-based cup. This will help in the continued reduction of the amount of packaging plastic needed.

We also successfully continued the use of recycled plastic in our sliced cheese packaging. All sliced cheese packaging contains at least 55 per cent recycled plastic. [Read more on our webpage.](#) →

**TOWARDS A TRUE CIRCULAR ECONOMY BY RECYCLING PACKAGING**

All of Valio's single-use packaging sold in Finland is easy to recycle in packaging collection systems. Unfortunately, all packaging materials from collection systems do not yet end up within the sphere a true circular economy, i.e. into new products. In 2021, we set a new goal for packaging: by the end of 2025, all the packaging we produce will be recycle-ready and have the potential to have a new life as a new product.

At the request of consumers, we have added easy-to-find, plain-language recycling instructions to our packaging to make everyday life easier. They help to ensure that the packaging ends up as new products. The 2020 introduction of the new recycling instructions has advanced as planned.

Currently, about 86 per cent of the packaging materials we use can end up as new products through a

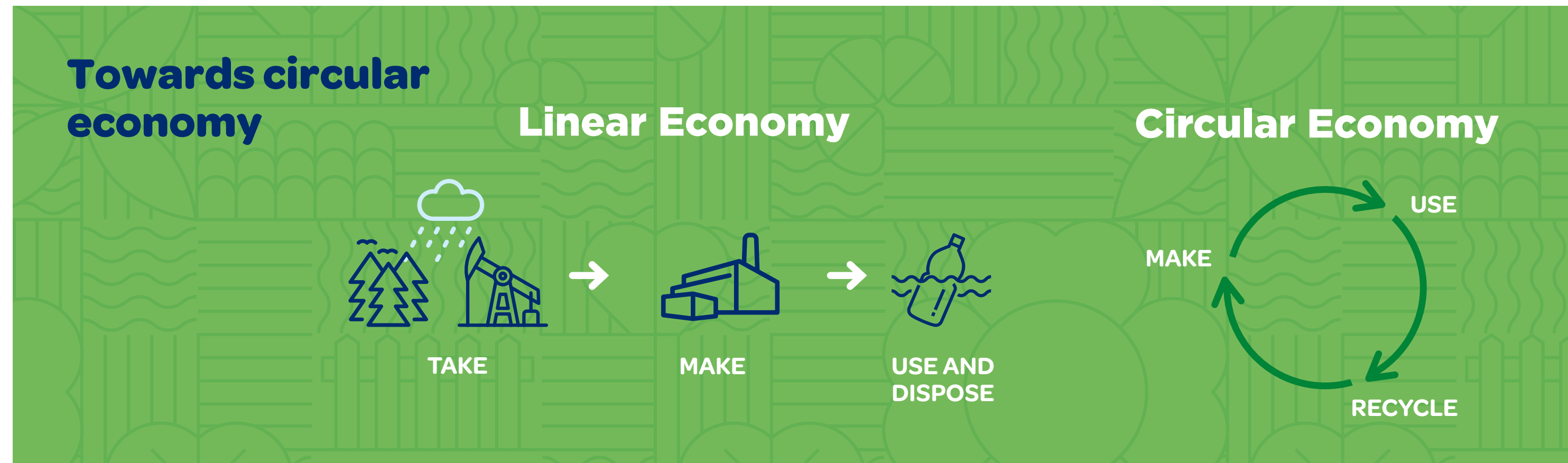
truly circular economy. For example, when recycled, the plastic part of the Valio PROfeel® protein quark cup can later be seen on a store shelf as, say, a flower pot manufactured from recycled plastic. The wrap around the cup may end up as the wrap around a Valio Koskenlaskija® cheese container. The aluminium lid, when recycled, can find new life as, e.g., a new car part.

In transporting milk, yoghurt and other products, we use recyclable plastic milk crates, dollies, and trays (used about 40.5 million times/year). This way we avoid using the same amount of single-use cardboard boxes or units. The plastic units that are worn out or are damaged in use end up in plastic recycling.

We package export products in cardboard transport and wholesale packaging. Their recyclability is compliant with EU guidelines. The recyclability in the destination country depends on the local recycling arrangements.

**NEW PACKAGING REGULATIONS**

In the EU, legislation on packaging has changed – and is changing significantly. The changes also affect Valio's operations. In 2022, we will prepare for the new requirements of the EU's Single Use Plastics Directive 2019/904/EU and waste legislation. Our biggest projects include the design and ramp-up to implementing the directive's requirement that the cap on a beverage container remains attached to the container. For our part, we will prepare a Green Deal agreement and practical measures to reduce the consumption of plastic single-serving packaging during 2022.



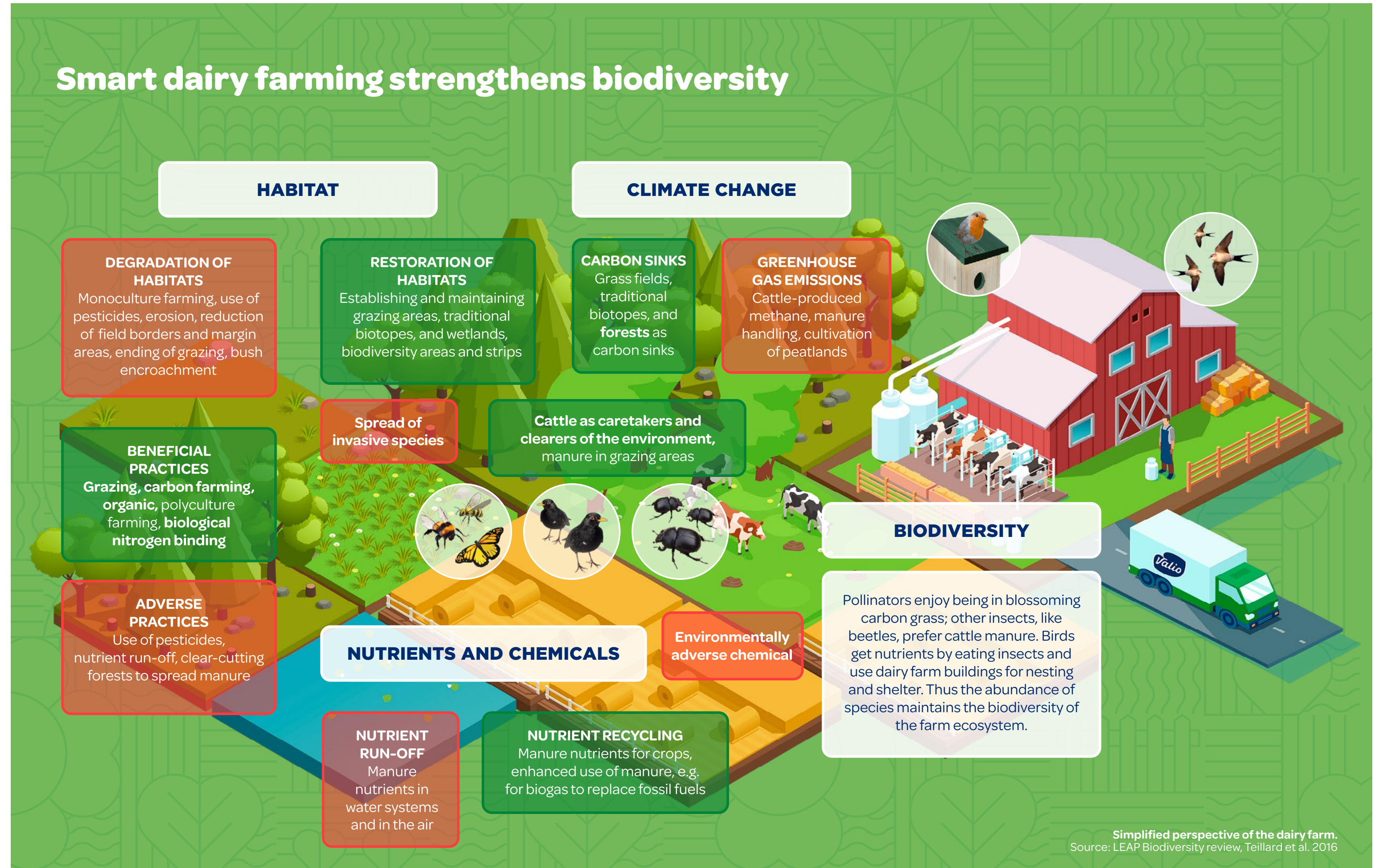
## Responsible milk production with dairy farm sustainability programme

Since the beginning of 2021, all Valio dairy farms have committed to our sustainability criteria. Valio pays a sustainability bonus of two cents per litre of milk. We are continuously developing the sustainability programme. In 2021, we prepared new programme measures from which the dairy farmers can choose the most appropriate for their farm for implementation starting in 2023. The new measures promote outdoor access for animals, biodiversity of the farm environment and carbon sequestration.

## Biodiversity

Valio dairy farmers are a significant land owner group in Finland, and farms have both positive and negative impacts on nature. **The best ways to secure biodiversity** are related to carbon farming practices, organic milk production, and the grassland grazing of dairy cattle.

In spring 2021, we started giving Valio farmers the possibility to apply for support for biodiversity actions. Support was granted to 13 farms for biodiversity pastures, flower meadows and wetlands. In summer 2021, we continued surveying valuable natural sites at farms in collaboration with landscape experts from the Rural Women's Advisory Organisation. The goal of these surveys is to increase dairy farmers' awareness of the farm's biodiversity and opportunities and ways to promote it.



The surveying was done during the summer at 20 farms. The advisory service has received excellent feedback from farmers, and magnificent areas of high natural value have been discovered at the farms.

In late 2021, a biodiversity roadmap that lays out our journey towards diversified farming was completed. We are verifying the nature-positive impacts through research, and we want to communicate the impacts openly. We are developing and offering products that strengthen biodiversity.

## Animal welfare

**ANIMAL WELFARE IS THE FOUNDATION** of our operations. Valio is a company owned by dairy farmers; taking care of animals is their daily work.

### ANIMAL WELFARE IS SYSTEMATICALLY MONITORED

We can't ask a cow directly about its experience, but studies show that animal welfare is shaped by four areas:

1. Good conditions
2. Proper feeding
3. Health
4. Opportunity for species-appropriate behaviour

At Valio dairy farms, the aim is to ensure that cows have all of these. In Finland, Naseva, the Centralised Health Care Register for Finnish Cattle Herds, maintained by Animal Health ETT, is used to monitor and assess welfare largely from the same basis as the international Welfare Quality® assessment protocols. Information about the occurrence of infectious diseases, disease protection and analyses results are collected in Naseva, and the use of veterinary pharmaceuticals is monitored. One of the conditions for the Valio sustainability bonus is that the farm is included in Naseva.

Farms participating in Naseva have an annual health care visit by a veterinarian who assesses animal welfare aspects, such as feeding, conditions, health and behaviour. The veterinarian and the farmer together draw up a plan for measures to improve animal health and welfare. The annual veterinarian visit is the minimum requirement for farms set by Naseva, but farm visits can be more frequent if necessary. All health care-related data, such as medications and the results of different samples, are stored in Naseva by the laboratory, the tending veterinarian or the dairy farmer.

Naseva was granted ISO 9001 certification in June 2021. The assessment was conducted by Kiwa Inspecta, the certification body in Finland. The certificate tells consumers that proactive and systematic efforts to promote animal health and welfare and food safety are being carried out at Naseva dairy and meat production farms.

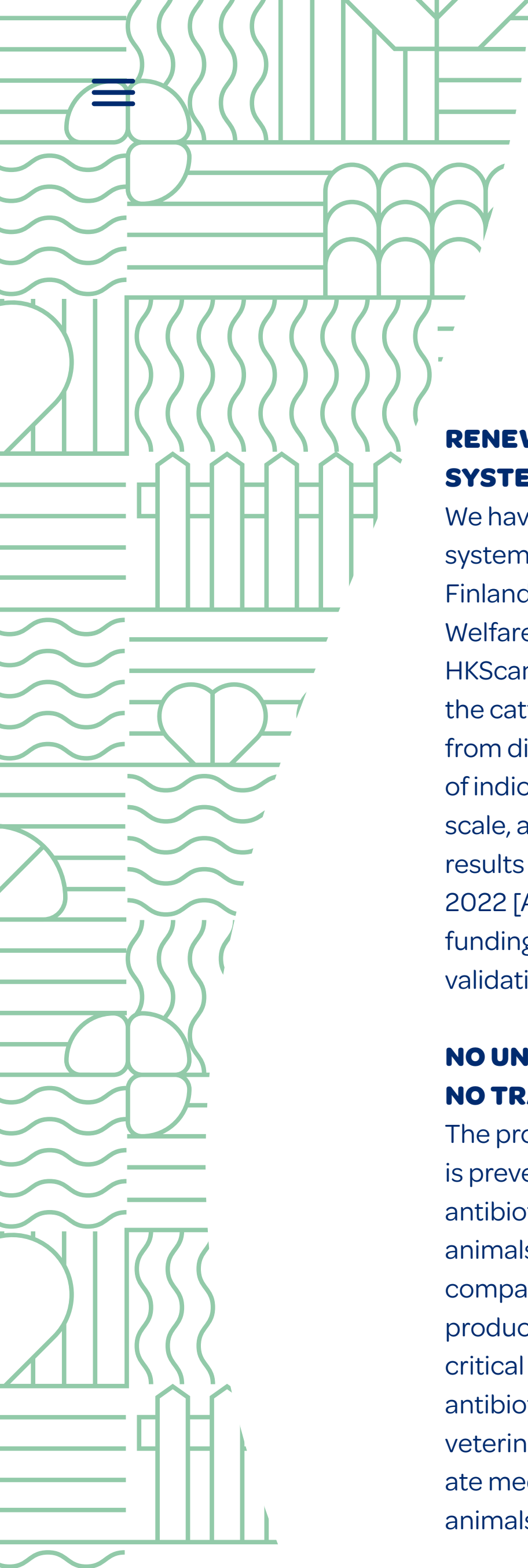
## CASE



### Biodiversity strips provide shelter and food for birds and insects

**VALIO DAIRY FARMS** maintain biodiversity by, e.g., grazing animals and cultivating multiple species of grass. Establishing biodiversity strips in and alongside a field can provide shelter and food for the species living in the field. We encourage and support dairy farmers in planning and implementing new biodiversity actions. The photo shows a biodiversity strip in Kukkulan Tila Oy's barley field.





**RENEWAL OF ANIMAL WELFARE ASSESSMENT SYSTEM INDICATORS**

We have renewed the animal welfare assessment system together with the Natural Resources Institute Finland, University of Helsinki Research Centre for Animal Welfare researchers, and veterinarians from ETT and HKScan. The Naseva Dairy-Well project first looked for the cattle-appropriate welfare indicators, collected from different sources. After the multi-phase selection of indicators, the set of indicators were tested on a small scale, and then the final indicators were selected. The results will be presented at the Maataloustieteen Päivät 2022 [Agricultural Science Days] in June 2022. Further funding is being sought for more extensive testing and validation.

**NO UNNECESSARY ANTIBIOTICS REGIMENTS, NO TRACE ANTIBIOTICS**

The proliferation of antibiotic-resistant bacterial strains is prevented at Valio dairy farms by treating cows with antibiotics only when there is a proven need. Production animals in Finland are given medication in moderation compared to, e.g., southern European countries, and production animals are not treated with antibiotics critical to human medicine. In Finland, cows are not given antibiotics as a preventive measure. If a cow is sick, a veterinarian will examine it and prescribe the appropriate medication. Records of medications administered to animals must also be kept.

**How is animal welfare assessed?**



We verify milk purity by testing for trace antibiotics. If a cow is treated with antibiotics, its milk is tested clean after a waiting period before milking into the farm's tank. 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. These measures ensure that there are no trace antibiotics in the products.

**COWS MOVE FREELY IN FREESTALL BARN, STANCHION BARN ARE GRADUALLY DISAPPEARING**

In a freestall barn, cows can move about freely year-round and they can eat and rest when they choose to. Milking is done at a milking station or by an automatic milking system. About 40 per cent of the Valio farms' barns are freestall barns, and more than two thirds of the cows live in them. In a conventional stanchion barn, each cow has its own stall where it eats, drinks, and rests; it is also milked there. Stanchion barns are gradually disappearing because most of the dairy farms going out of business – particularly the smaller farms – are farms with stanchion barns. Valio's requirement that new barns must be freestall barns is contributing to the decreasing number of stanchion barns. About 30 per cent of all the milk supplied to Valio is produced in stanchion barns.

About 70 % of dairy farms are grazing cows and young cattle during summer and about 18 per cent of the dairy farms provide year-round outdoor access. We advise farms to take into consideration grazing and exercise opportunities whenever planning a new barn.

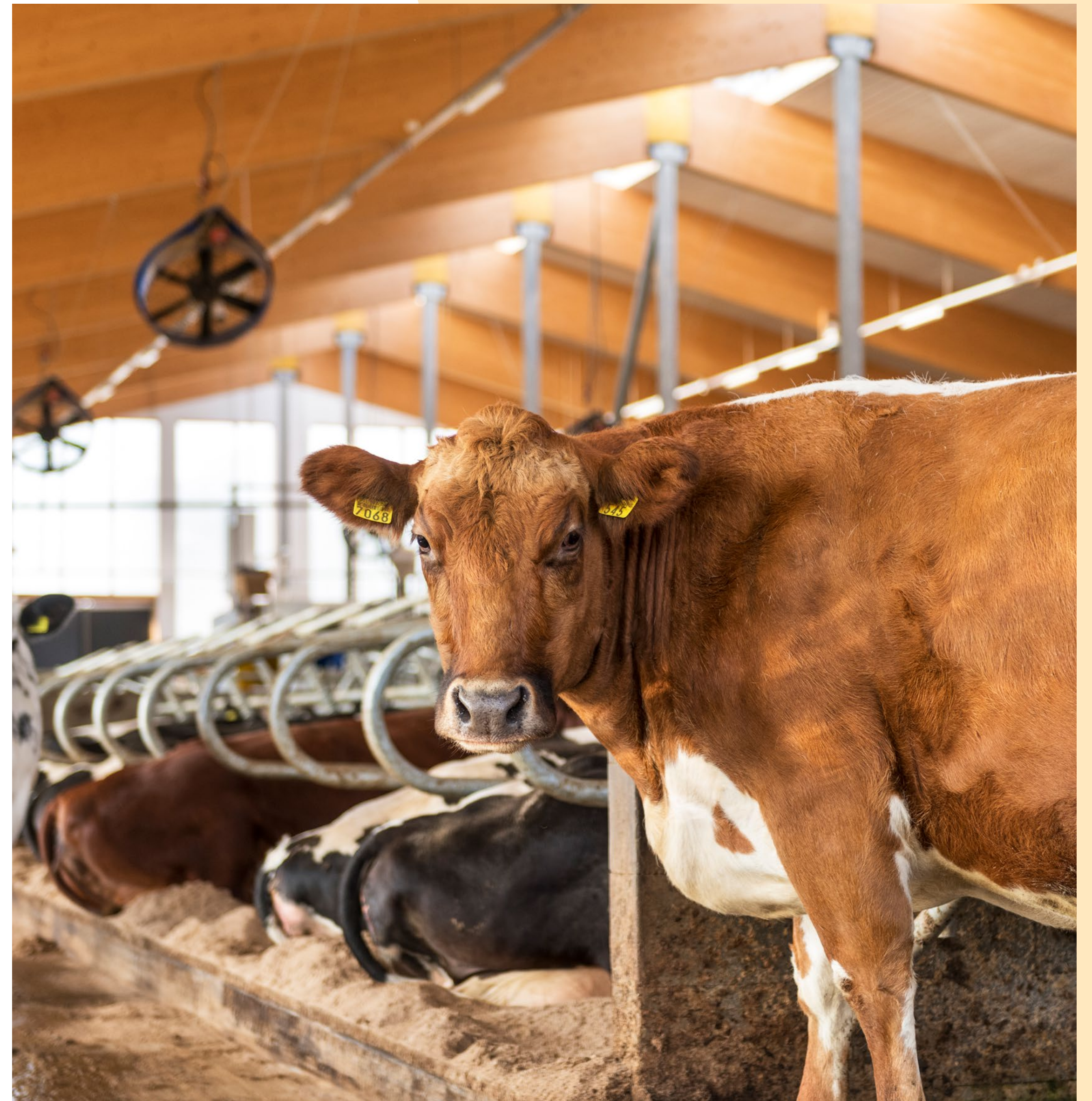
**Key figures on cow exercise and outdoor access in 2021**

- More than 40 per cent of the barns are freestall barns. Since freestall barns are usually bigger than stanchion barns, more than two-thirds of the cows live in freestall barns.
- Cows or young cattle at some 70 per cent of the dairy farms graze for at least three months and at least six hours per day. Additionally, cattle at some of the farms move about in exercise yards during summer.
- At Valio's organic dairy farms, all animals graze on grass and live in freestall barns.
- About 18 per cent of the dairy farms have arranged regular year-round outdoor access for cows.

**PAIN RELIEF FOR DISBUDDING**

Calves are disbudded, i.e. their horn buds are removed, for safety reasons: caretakers and other animals are safer when the animals don't have horns. Disbudding a calf is a less harmful procedure to the animal than de-horning an adult animal.

As of the beginning of 2021, a requirement at all Valio farms is that sedation and anaesthetic must be given to a calf prior to disbudding. The animal is given adequate pain medication also after the procedure. This way, the procedure causes the animal as little stress and pain as possible. Most of the farms have been using this practice already for years.



## Farm support and audits ensure animal welfare

Maintaining and developing the welfare of cows requires work, knowledge and support. Dairy farmers are supported in their work by Valio's primary production experts and by some 20 experts that work in the cooperatives. Valio's laboratory service produces data on the quality of feed and milk, analyses milk yield recording and mastitis samples, and performs gestation tests from milk samples. The cooperative experts offer no-cost consultation and support in issues related to milk quality, milk processing equipment, feed production, new investments and more.

Valio and its cooperatives also arrange a variety of training courses for dairy farmers and dairy farm workers. In addition, we take part in research and development work that aims for better health and welfare for cows and calves.

Our goal is to audit 20 per cent of our farms per year. In 2021, an audit was conducted at 19.5 per cent (13.6) of the farms. During a farm visit, a production advisor from the cooperative observes how well the farm's milk production process aligns with Valio's approach: how milk quality, animal welfare, feeding and general cleanliness are managed at the farm. If a shortcoming is found, the dairy farmer receives instructions on remedying the issue. In the most serious cases, milk collection is suspended until the shortcomings are corrected.

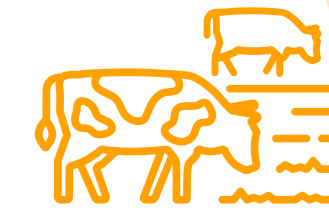
An expert from the local cooperative will visit a farm also if there is a drop in the milk quality or a disruption in production. We are constantly developing our collaboration also with healthcare and supervisory veterinarians.

### MILK QUALITY AT ITS BEST

Healthy, thriving cows receiving proper nutrition and care produce clean, high-quality milk. In 2021, the share of the best milk (E-rated) remained on a good level at 97.1 per cent (In 2021, the share of the best milk (E-rated) remained on a good level at 97.1 in 2020). As in the previous year, less than 0.01 per cent of the milk was in the weakest quality rating, 2. Excellent milk quality requires continuous monitoring by the dairy farmer and a quick response to deviations. Milk quality is verified before the milking of every cow. In the daily quality verification of the farm tank milk, temperature and one's own senses are important tools. Additionally, the dairy farmer monitors the milk's cell and bacterial counts and the milk composition analysis results of every milk collection.

In conjunction with every milk collection visit, milk truck drivers inspect the temperature, smell and appearance of the farm tank milk. Only milk that meets the requirements can be pumped into the truck's tank. The drivers also test the milk for microbial traces of pharmaceuticals before it is delivered to the dairy's silo.

[Read more about animal welfare on our webpage. →](#)



**We take part in research and development efforts that seek to improve the health and welfare of cows and calves.**





# RESPONSIBLY PRODUCED, HEALTHY PRODUCTS

Domestic food and self-sufficiency are an important part of Finland's security of supply, and domestic food production has important employment impacts.

## Delivery reliability and food security

Domestic food production is important for Finland's security of supply because foreign imports are not always certain. Sustainability of the food system and the importance of securing critical functions are highlighted, particularly in times of crisis. For example, there was concern about food availability in Finland during the coronavirus pandemic. However, it quickly became apparent that goods were on the grocery store shelves because the security of supply and preparations worked. Valio's delivery reliability to customers has remained above 99 per cent throughout the pandemic.

Domestic production also has important employment impacts. Choosing domestic food products can support Finnish jobs and livelihoods.



## Products made from clean and sustainably produced raw materials

Clean Finnish milk is the foundation of most Valio products. The quality and safety of all the milk we use is carefully ensured through proper handling and regular sampling. [Read more about milk production.](#) →

In addition to milk, we also use many other raw materials. The quality and food safety of each raw material is ensured through a detailed raw material analysis, which is approved before the product is put into production. Additionally, we have assessed raw material-specific liability risks, and, based on the supply chain liability risks, we have identified the raw materials requiring special attention and whose production involves a particularly high level of globally known liability risks. These raw materials are primarily agricultural production plant products or raw materials of animal origin.

In 2021 we created policies on the use of palm oil, cocoa, coffee and soy. We expanded our product development process to recognise these policies in the planning of new products. We also did a lot of work on raw material conversions for existing products. We advanced the policies by mapping the current landscape of raw materials use, by exploring alternative certified raw materials from our suppliers, and by launching several product conversion projects. Every raw material conversion is a meticulous effort in order to ensure the product's flavour profile, quality and availability. The targets and progress of the policies are presented in the accompanying table.

YEAR 2021

VALIO'S DIRECTION

FOCUS AREAS

REPORTING

In 2022, we will update the assessment of raw material-specific liability risks and will integrate it into the product development process. We will raise product developers' and buyers' awareness of raw material-related liability risks so that they can be taken into better account in the planning of new products.



### Progress of raw materials policies

	TARGET	PROGRESS 2021	SITUATION IN 2020	SITUATION IN 2021
<b>PALM OIL</b>	No palm oil in consumer products.	No palm oil in consumer products.	100%	100%
	Palm oil in industrial products verifiably certified.	Raw material is RSPO SG certified. RSPO certification of the supply chain was acquired for the production plant.	0%	100%
<b>SOY</b>	No soy in consumer products.	No soy in consumer products.	99%	100%
	Soy is not used in feed in Finland.	No soy in feed.	100%	100%
<b>COCOA</b>	Only certified cocoa is used.	Certification for one plant's cocoa raw materials and UTZ certification of the supply chain was acquired for the plant.	0%	3.6%
		Identified a certified alternative for three of the biggest cocoa raw materials, which covers the majority of Valio's cocoa products. Conversion projects for products were launched.		
<b>COFFEE</b>	Only certified coffee is used.	Identified a certified alternative for the coffee raw materials in use, and a raw material conversion project was launched.	0%	0%



## Food safety is the top priority

We constantly strive for better food safety management in our procurement, production and logistics. Our food safety targets include, e.g., the continuous reduction of foreign objects and other product defects that cause recalls. Food safety is one of our responsibility focus areas.

A foreign object is any object that doesn't belong in the food product, e.g. a piece of packaging material. Some foreign objects can be detrimental to consumers' health. In 2020, we found that the feedback on foreign objects had not decreased as we had anticipated. Therefore, in 2021 we implemented an extensive foreign object project in which we identified targets of development to reduce foreign object occurrences. The project will continue in 2022 and beyond.



**We want to continuously improve our already good standards. An example of this is our foreign object project.**

The number of recalls in 2021 was the same as in 2020 (8 in total).

- One of the recalls was due to a microbiological defect and thus led to the issuing of a press release.
- The recall of one trading product was due to an EU-wide ethylene oxide crisis. Ethylene oxide shall not be used in food products in the EU. Recalls of Valio's own products were able to be avoided thanks to stricter procurement management, although ethylene oxide was the single biggest cause of recalls also at the Finnish level.
- Other recalls were made as a precautionary measure or for poorly visible or erroneous date markings.

In 2021, we improved food safety also by developing the assessment and control of sabotage risks, the assessment of counterfeit risks and the related analysis plan, and supplier management. The number of product safety concerns received from consumers decreased significantly from the already low level.

In 2022, the most important focus in terms of food safety is the development of Valio Finland's food safety culture. Additionally, among other things, we are developing our food safety crisis activities and continuing the development of counterfeit risk management.

## Innovations to promote health and wellbeing

Valio's product development is based on listening to the consumer and on products that taste delicious and emphasise nutritional benefits. When Nobel Laureate A.I. Virtanen headed the Valio laboratory, the concept of using innovations to improve wellbeing became our guiding principle.

In 2021, our most important product launches promoting health and wellbeing included yoghurts and berry soups with no added sugar. We introduced the product family's new single-serving yoghurts packaged in board-based cups instead of plastic. The **Valio PROfeel®** series of protein products was expanded to new products, such as protein puddings. We removed the plastic spoon and lid from the product packaging to reduce plastic. We expanded the range of **Valio Oddlygood®** plant-based products to the food preparation products category. This brings consumers new kinds of opportunities when preparing food.

In 2021, Valio had some 50 organic products for sale in Finland and in export markets. Organic milk for the Valio Luomu™ products is produced at about one hundred organic farms around Finland. The cows at these farms move about freely in freestall barns, and during summer they graze in pastures. Organic products are an easy choice for consumers to promote biodiversity, because grazing with organic, polyculture farming and the recycling of organic matter increases biodiversity. More spe-



cies thrive in organic fields than in other fields. In 2021 we also ensured that domestic organic berries can be used in the production of our organic juices. Where necessary, we developed the production range to comply with the EU's new regulation on organic products.



## Responsible marketing communications

We are committed to the responsible marketing of our products, our services and our operations. Our marketing communications are compliant with applicable laws and regulations, and are honest and truthful. Valio's Responsible Marketing Policy sets forth the principles for all Valio markets. It is reviewed annually.



## CASE

### Baking makes good

Studies show that in addition to providing delicious baked goods, baking is also a way to show love, care and friendship to those near and dear. Baking is seen as meditative and even therapeutic, and baking with others is a social event. In the marketing of our baked goods in spring 2021, we wanted to tell consumers about social impacts of baking and encourage people to bake for their loved ones and other important people. The 'Bakers always make good' slogan sums up Valio's baking ethos for consumers: whenever you bake, you are doing something good for you and for others. Based on the results of the survey we conducted about the baking campaign, our message was well received by consumers. We will continue inspiring people to bake by offering products and services that make baking easy and rewarding.



## Nutritional responsibility

We want to encourage Finns to eat healthier and in line with nutritional recommendations. We improve the nutritional quality of the Finnish diet and nutritionally responsible practices through nutrition commitments, among other things. A nutrition commitment is the National Nutrition Council of Finland's operating model that is part of Society's Commitment to Sustainable Development (Commitment2050). In the last five years we have published six targeted and measurable commitments and we are planning new ones. Public commitments are available on the [Commitment2050 website \(in Finnish\)](#). →

In 2021 we achieved and reported on the targets related to our three earlier commitments.

### 1. VALIO WILL DEVELOP NUTRITIONALLY RECOMMENDED, CLIMATE-FRIENDLY RECIPES FOR HOME COOKS

We want to offer consumers nutritionally recommended recipes that are easy and suitable for home cooks and that are also more climate-responsible alternatives. We use the Heart Symbol meal criteria as an indicator of nutritional quality. As climate-responsible criteria, we use the more climate-friendly diets introduced in FoodMinimum project. We achieved the target on schedule, and at the beginning of 2021 we published on Valio.fi 10 recipes created on the basis of the above-mentioned criteria.

### 2. VALIO WILL DOUBLE THE NUMBER OF ITS HEART SYMBOL RECIPES FOR PROFESSIONAL KITCHENS

We want to offer professional kitchens and catering services more recipes that are aligned with nutritional recommendations. Our goal was to double the number of Heart Symbol recipes for professional kitchens by 2022. We exceeded our target by developing 14 new Heart Symbol recipes for industrial kitchens.

### 3. PLATE MODEL PICTURES OF VALIO'S EVERYDAY RECIPES ENCOURAGE MORE VEGETABLES IN THE DIET

We are committed to creating plate model-based pictures of 20 of our everyday food recipes by 2022, and we will communicate on our website how a main course can be turned into a well-balanced meal by adding a side of salad or other vegetables, for example. The images have been used in, e.g., the article [Plate model is a great tool for meal planning](#) (in Finnish).

At the end of 2021, we had a total of 131 Heart Symbol products in our product portfolio in Finland. A product with the Heart Symbol is a better choice in terms of the fat content and type, sugar and salt, in its product category.

## We offer comprehensive product info online

Valio.fi, one of Finland's most popular food sites, is also where we provide extensive information about our products. You can use the search function to find product alternatives that fit your diet (e.g. lactose-free, gluten-free, vegan) or responsibility-based preferences (e.g. Heart Symbol or Hyvää Suomesta [Produced in Finland] label). In 2021, we updated the Finnish-language

product descriptions and started translating them into Swedish and English to reach even more people.

We offer recipes for consumers, professional kitchens and catering services. Nutrition information, our menus and our calculators can be used by home cooks, professional chefs and nutrition professionals.



## CASE



### Muru the recipe bot works around the clock

In March 2021, we launched the recipe bot Muru on our website. Muru, an artificial intelligence-based chatbot, makes it easier for users to find the Valio.fi recipes and content they are interested in and to get answers to possible problems in the kitchen. Muru uses AI and machine learning to interpret the questions that are asked and connects the questions to the answers it has learned.

By year end, Muru had engaged in more than 36,000 chats. A peak number of visi-

tors, more than 8,000 chats, was reached in December. Muru's accuracy is excellent: the bot has been able to answer as much as 96 per cent of the questions asked.

We have found that the questions the bot receives are asked in a different way than with a search engine. Users don't necessary know what kind of food they want to make. In fact, the chats with Muru have been used also in the planning of new content for webpages.



# PEOPLE'S WELLBEING

Committed and capable Valio people are our most important competitive advantage and thus at the core of our strategy. In 2021, we invested in the competence development, wellbeing, equality and safety of our people.

## People at the core of the strategy

The health, safety and wellbeing of Valio employees and those working in our supply chain are the foundation of our operations. The exceptional conditions caused by the coronavirus pandemic continued in 2021.

For both remote and in-person workers, we continued our pandemic practices and management in line with Valio's hybrid strategy of anticipate, test, trace, and isolate. The prolonged exceptional circumstances challenged our employees' coping skills, so we put special emphasis on mental wellbeing. Employees working in person and remotely in all Valio countries did a tremendous job of implementing the strategy and ensuring operational excellence as the exceptional circumstances continued.

### WE FOCUSED ON MENTAL WELLBEING

In addition to the pandemic, other changes in working life – such as digitalisation, job fragmentation – and a more hectic society are challenging the coping skills at many workplaces, including ours. While Valio has already had policies in place to support mental wellbeing, it is important to us to ensure that every Valio employee has the information, know-how and tools to take care of their own and their team's mental wellbeing and coping skills.

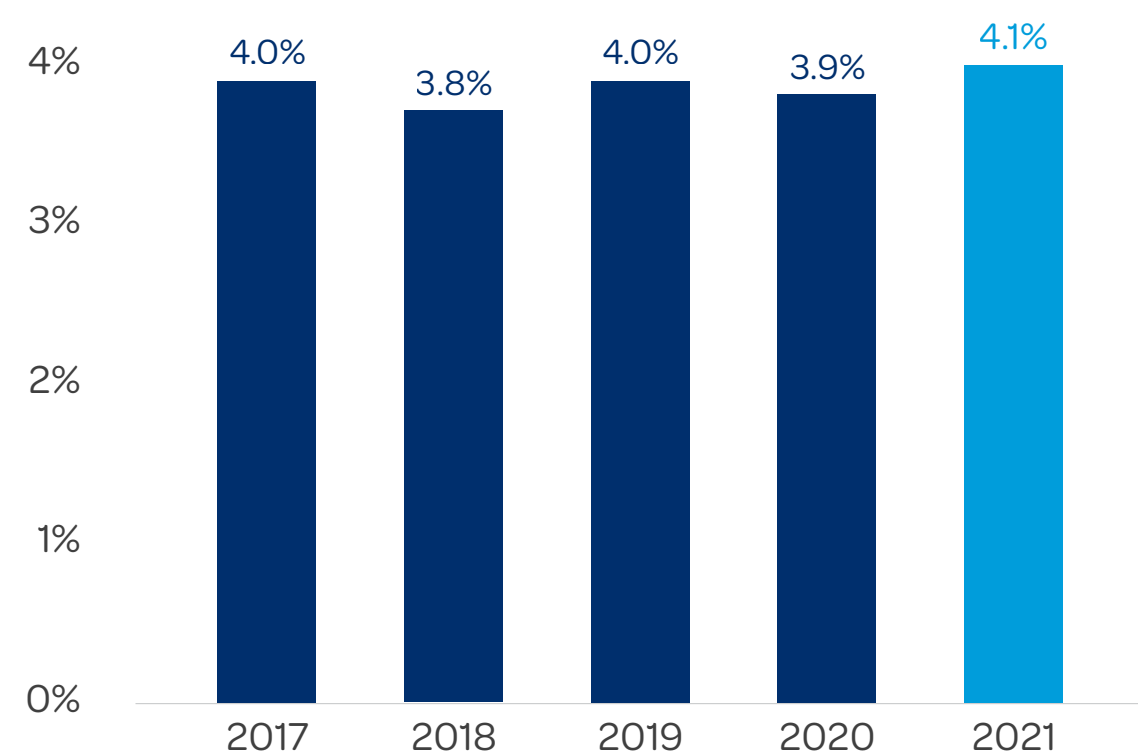
The MIELI Finnish Association for Mental Health recognised our commitment to supporting mental health by designating Valio as a Hyvän mielen työpaikka® (Workplace with a Good Feeling). It has inspired us to create a Mental wellbeing programme that extends to 2025. The programme covers themes like good sleep, sufficient resources, a strong mind and active daily life. The themes are widely relevant to Valio employees

working in different types of jobs and have emerged in employee surveys, occupational health monitoring and in discussions with Valio employees.

We focused even more on occupational health efforts and introduced new forms of support for mental wellbeing. We tried offering low-threshold brief therapy for Valio employees. The brief therapy pilot was so successful that we took it into continuous use. For 2022, we expanded the scope of the occupational health agreement to include consultations with specialists, imaging, occupational physiotherapy and weekend visits. The agreement expansions were decided based on the findings of occupational health professionals and the wishes of Valio employees. Additionally, we annually arrange two global mental wellbeing-themed weeks to encourage Valio employees to talk about mental wellbeing.

Despite the pandemic, sickness absences have remained at a good level.

**Sickness absences in Valio Finland**



**Strategy implementation through people continued at a good pace**

The implementation of our new strategy in 2021 brought many changes within the Valio Group. With the Heino Tukku acquisition, we welcomed 342 new Valio employees and new expertise. The spin-off of the Oddlygood™ business brought new recruits for example in Finland and in the USA as well as the development of a new kind of cooperation model.

In 2021, we made the implementation of target and development discussions throughout the organisation as one of the Group's performance indicators. We wanted to ensure that every Valio employee has a clear picture of how their job is linked to the implementation of the strategy. Target and development discussions were held in all Valio countries, and 95 per cent of the personnel within the sphere of them took part in the discussions.

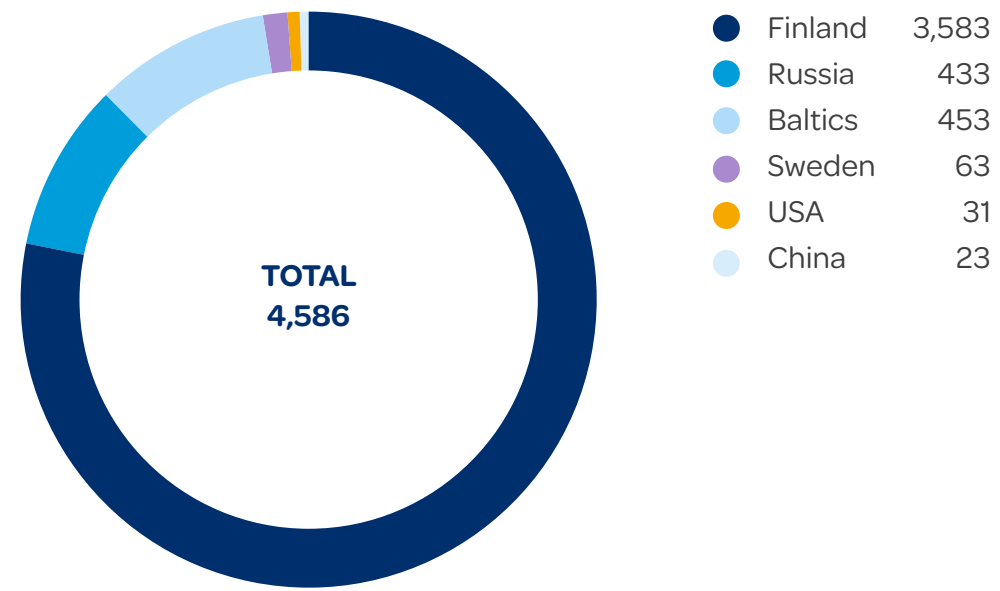
We also invested in the implementation of the focus areas of the VAI (value-added ingredients) powder business, in line with our strategy. In the context of VAI powders, we started a project to identify the strategy-required changes needed in competence and know-how in research and development activities, sales, product category work, quality, and production in both the short and long term. The project covers recruiting, competence development, culture, processes and management areas. In 2021, we recruited VAI experts for Finland and China.



We also invested in internalising the strategy by arranging two strategy and leadership forums that brought together some 100 Valio key employees from different countries. The goal was to strengthen the key individuals' ability to lead strategy implementation and renewal. The theme was innovation management: developing of a culture of innovation and leadership across all Valio operations. Our corporate culture has been built around innovativeness throughout Valio's history.

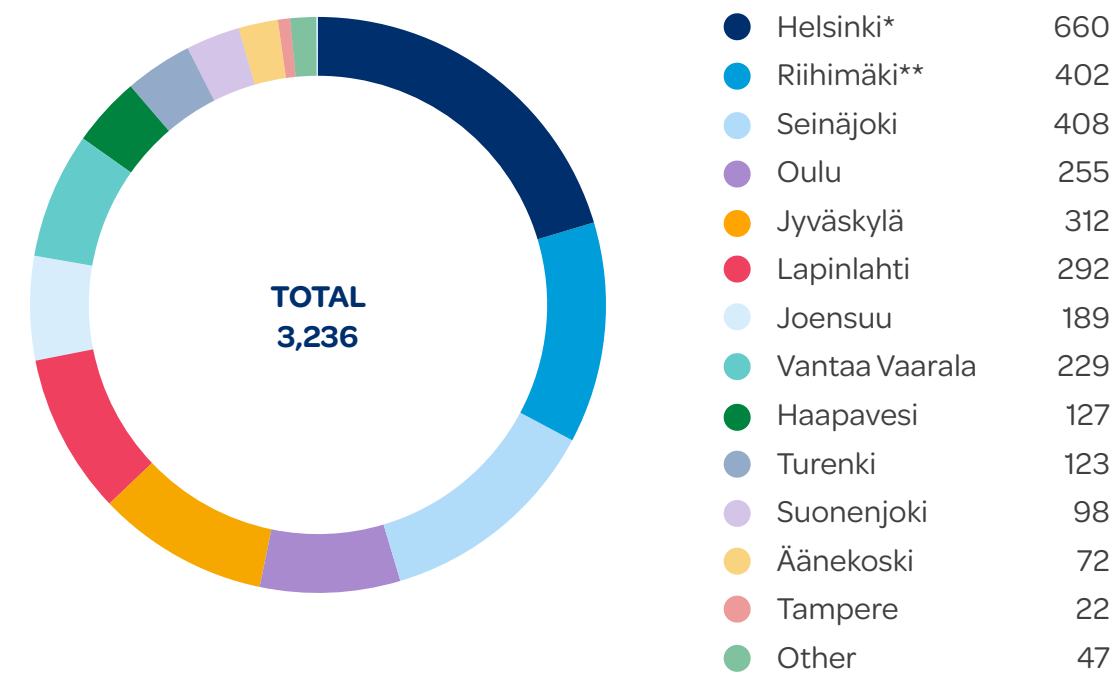


**Personnel by country\***



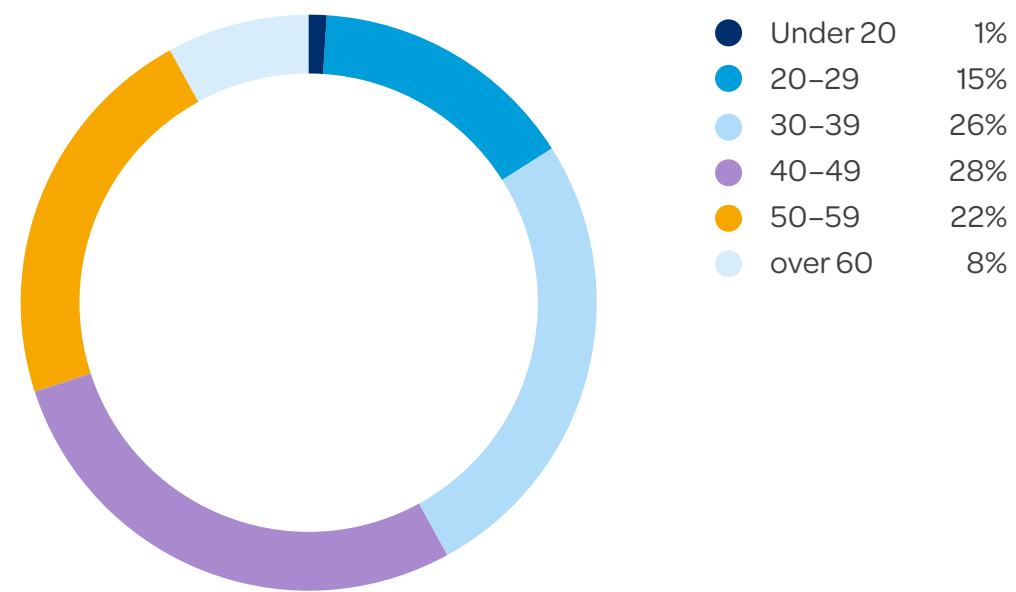
\*Number of employees, all contract types.

**Personnel by site in Finland, 2021\*\*\***



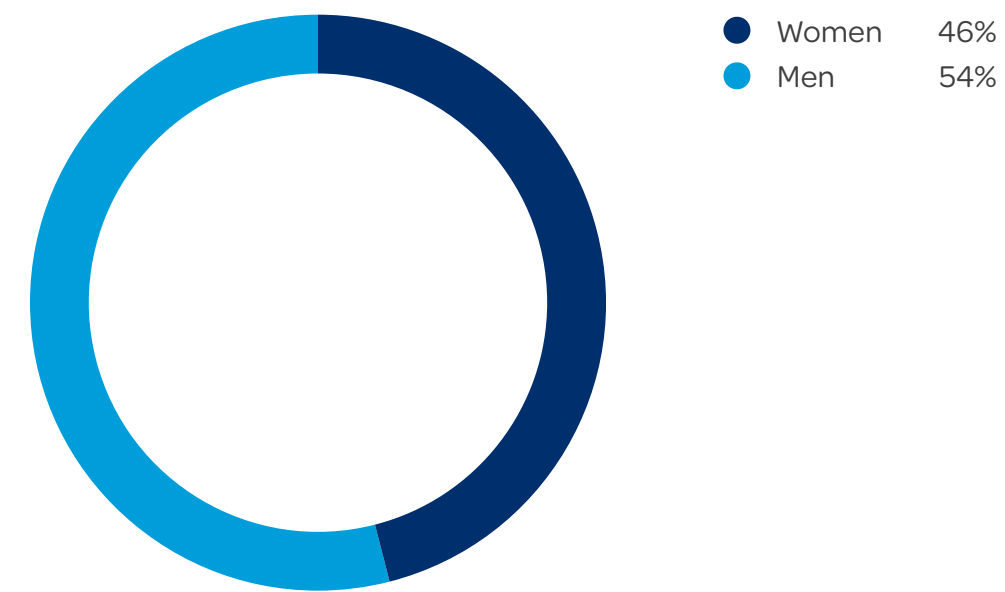
\*Figure includes all Helsinki sites.  
 \*\*Figure includes Riihimäki R2 (108).  
 \*\*\*Number of employees active/proportional. Figure includes Valio Ltd employees.

**Personnel by age, 2021\***



\*Global.

**Employees by gender, 2021\***



\*Global.

**WE DEVELOP COMPETENCE THROUGH ON-THE-JOB LEARNING, COACHING AND TARGETED RECRUITMENT**

The continuing pandemic has been particularly challenging for supervisors. That is why the development of the coaching leadership approach has been a priority of HR work throughout Valio. We supported supervisors and experts with various coaching events:

- Some 50 supervisors from Finland took part in the new Succeed as a Supervisor training package. The programme will continue in 2022, and it will also be launched in all subsidiary countries.
- We trained supervisors in performance management and in providing feedback. There were 170 participants.

We will continue the development of coaching leadership in 2022, and we'll start systematically training supervisors and experts at the Finnish production plants. The coaching leadership programme will be implemented in all Valio functions in the coming years.

The majority of Valio employees work in a factory, wholesale or warehouse environment. Their annual trainings are mainly related to food and occupational safety and to statutory obligations and quality systems. Additionally, Lean Six Sigma trainings were arranged to support continuous improvement. Late in the year, we also started harmonising and updating the safety training. The intension is to complete it in 2022. To strengthen business expertise, we started an international Valio LEAD programme; 28 Valio employees took part in 2021.





**Developing the coaching leadership approach is an important focus area in our HR work. We will implement a systematic coaching leadership training programme in all Valio functions in the coming years.**

On-the-job learning accounts for the majority of training. In Finland, an average of 4.9 hours was spent in formal training (5.0 men/4.8 women). For subsidiaries, we will create and develop systematic training monitoring over the coming years.

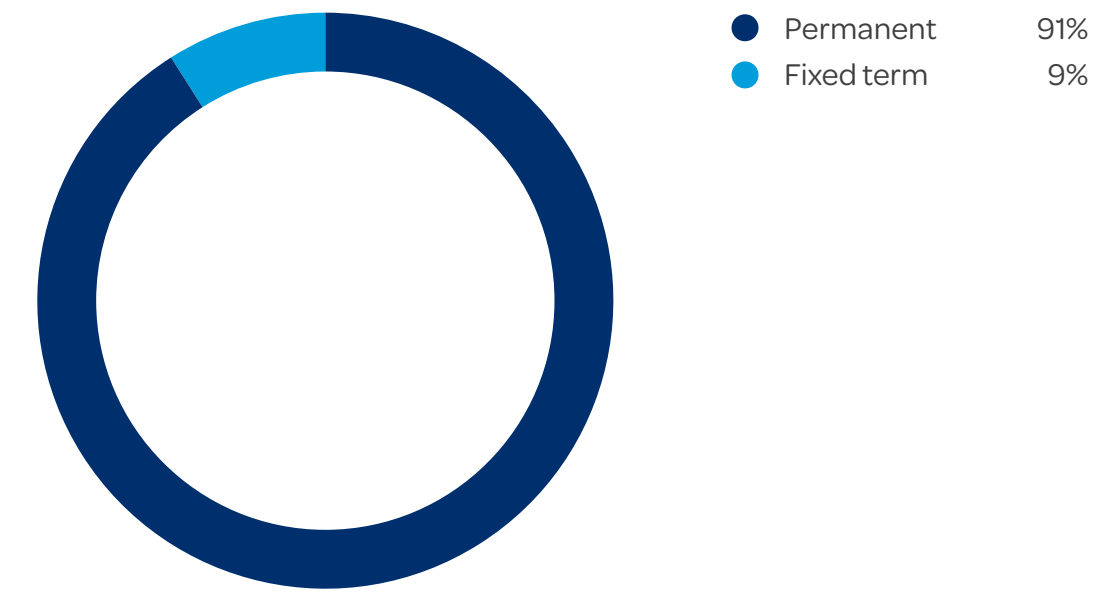
We strengthened our expertise also with targeted recruitments. We implemented a Trainee programme for recent college graduates. Through the programme, we recruited ten future experts for professional positions.

We prepared for post-pandemic working by defining the new hybrid working model. The planning took into account the employees' expectations and feedback.

**WE LISTEN TO VALIO PEOPLE**

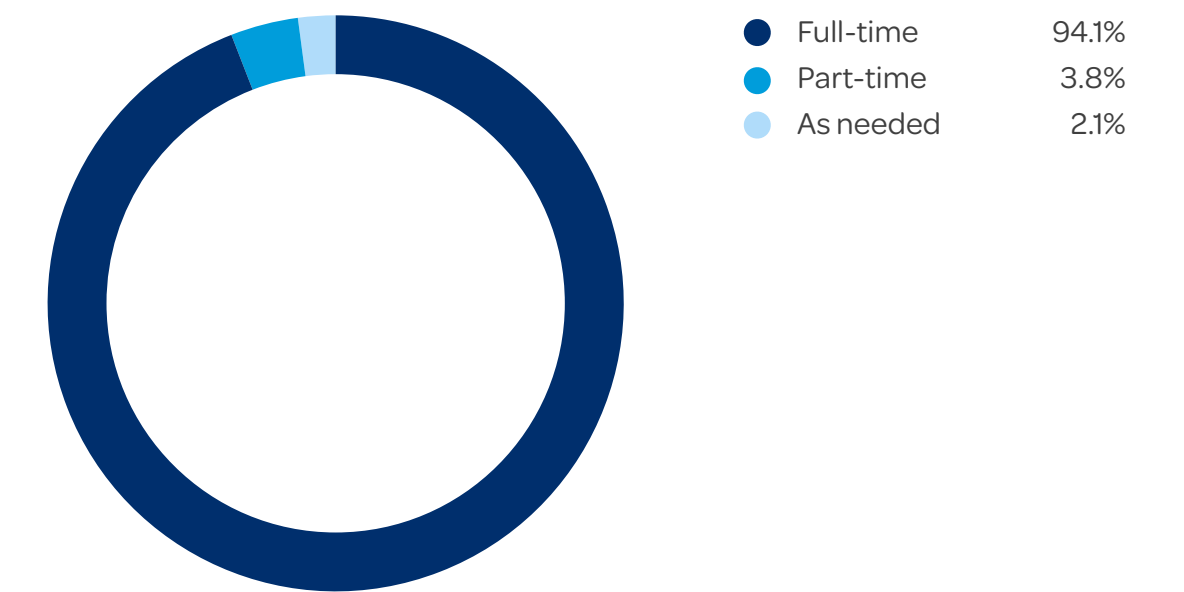
In 2021, we carried out two employee surveys: in spring, the new Valio Voice survey was piloted in the head office functions, and in autumn it was conducted across Valio. The Valio Voice survey is a new way to measure employee engagement, to listen to the Valio people and to give everyone an opportunity to influence their own work.

**Employees by contract type, 2021\***



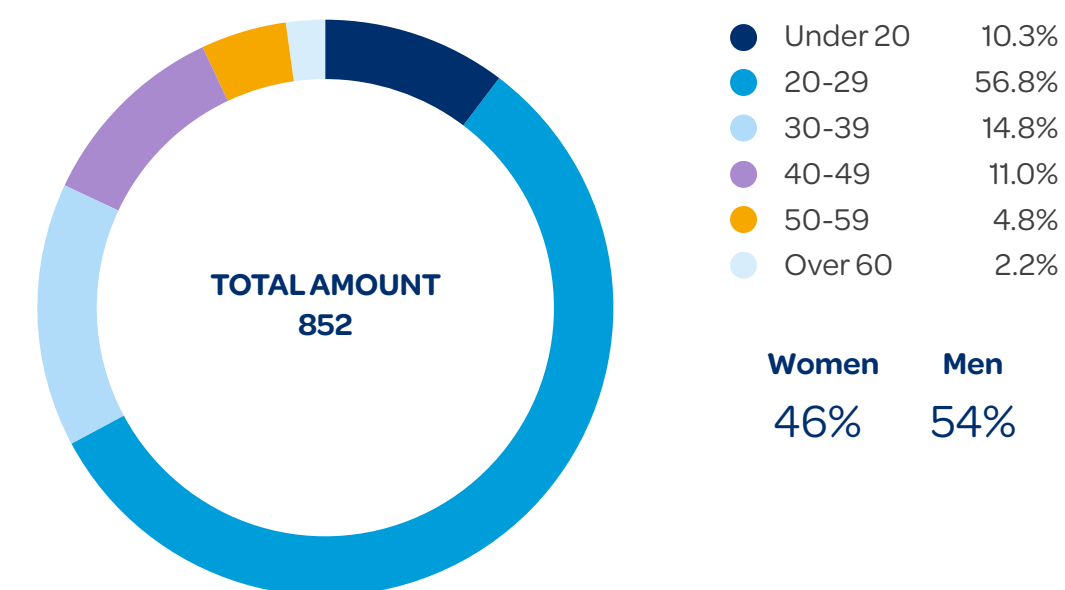
\*Global. Method of calculation – total/proportional

**Nature of employment, 2021\***



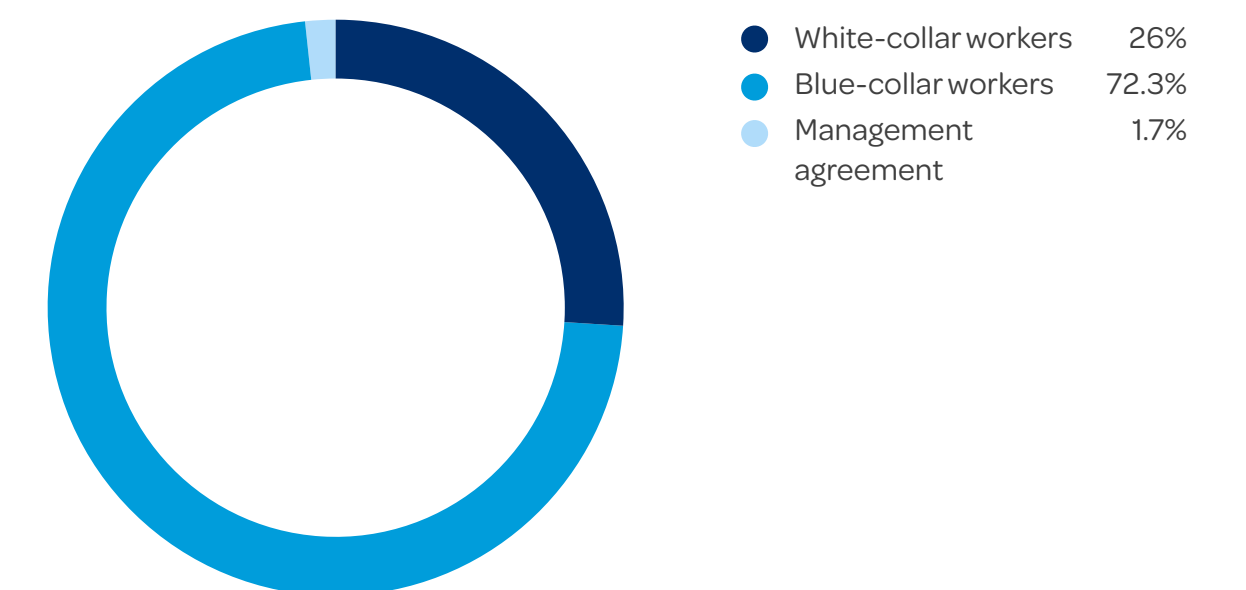
\*Includes Valio Ltd Finland employees.

**Total number and demographics of new hires, 2021\***



\*Valio Ltd. Note: Excluding subsidiaries. Counting all new people who have started during the year. Figures include summer workers and interns. Calculated as headcount.

**Collective bargaining agreements, 2021\***



\*Includes Valio Ltd Finland employees.

**White-collar workers** = MVL contractual salaries, Trade Union Pro, YTN Federation of Professional and Managerial Staff, and general collective agreement.  
**Management agreement** = Management agreements.  
**Blue-collar workers** = MVL and SEL.

## Equality at work and equal opportunities

Equality and non-discrimination are our key values and part of Valio's Code of Conduct principles. We promote equality and non-discrimination purposefully in all our operations. The measures are included in Valio's Equality and Non-Discrimination Plan, which has been compiled in collaboration with personnel representatives. All Valio employees complete Valio's Code of Conduct training. Additionally, Valio USA also annually arranges virtual training on anti-harassment.

In 2021 we invested in promoting equality and non-discrimination, starting with Finland. We updated Valio Finland's Equality and Non-Discrimination Plan together with personnel representatives convened from different areas of the organisation. We are implementing the plan in 2022. At the same time, the effort will be expanded to all Valio's operating countries.

Examples of our priorities in promoting equality and non-discrimination in practice include: We promote the equitable recruitment of all genders in the various jobs. We want to create equal opportunities for all for career advancement and job rotation. We develop working conditions to ensure they are suitable for men, women and non-binary people. It is important to us in the recruitment phase that the job vacancies attract applications from people of all genders. During the employment relationship, we pay attention to work arrangements and



**Rate of permanent employee turnover 2021**

**Turnover rate\***

**3,4 %**

**Men**

**1,8 %**

**Women**

**1,6 %**

\*Valio Ltd.  
Note! Does not include subsidiaries.  
Counting individuals who have resigned from a permanent post adjusted to the number of permanent employees.  
Formula (The number of individuals who have resigned from a permanent post during the year / The number of permanent employees 31.12.2021).

thus aim to facilitate a good work-life balance. Additionally, we promote and uphold gender equality in the conditions of employment, especially regarding levels of pay.

We immediately address inappropriate conduct and discrimination. Our employees can report observations of suspected misconduct through the Valio Whistle channel. [Read more about the Valio Whistle channel.](#)→

**We want every Valio employee to feel valued and accepted as a member of the work community.**



## Aiming for zero work injuries and accidents

Our long-term goal is zero work injuries and accidents. Our operations are guided by a global safety policy. In 2021, promoting work safety was heavily influenced by the coronavirus pandemic. Ensuring a healthy and safe environment for the Valio employees in factories, warehouses, wholesale sites, offices and at remote sites was, in fact, the biggest effort of the year. We did very well in managing and responding to the coronavirus pandemic. Alongside coronavirus safety, we continued our persistent work to improve work safety by focusing on everyday practices and ensuring smooth everyday life despite the pandemic.

We encourage personnel to immediately report any hazardous situation they observe, and we use global management model to investigate injuries. We continuously evaluate and improve our ways of working based on the information gained through risk assessments, workplace surveys, incident reports, accident investigations, and occupational health statistics. Valio employees can participate in the proactive advancement of safety and work wellbeing in many ways, and we regularly arrange various safety-themed trainings for our own employees and for external players working at Valio sites. [Read more about this on Valio's website.](#) →

### OCCUPATIONAL ACCIDENTS ARE MOST OFTEN CAUSED BY MOVEMENT AND ARE MINOR

Globally, there were seven per cent more occupational accidents in 2021 than in the previous year. Occupational accidents at Valio are mostly minor and cause only brief absences. The accident frequency was 21 accidents per million hours worked. There were no reports of occupational diseases nor were there any fatal workplace accidents.

Of the occupational accidents in Finland, 39 per cent did not result in absences; 22 per cent resulted in absences of 1-3 days. The most common occupational accidents in Finland involved falls or slipping (29% of the cases), a sudden strain on the individual (19%), and cuts and injuries caused by a rough object (18%). 13 per cent of the occupational accidents in Finland happened during work commutes.

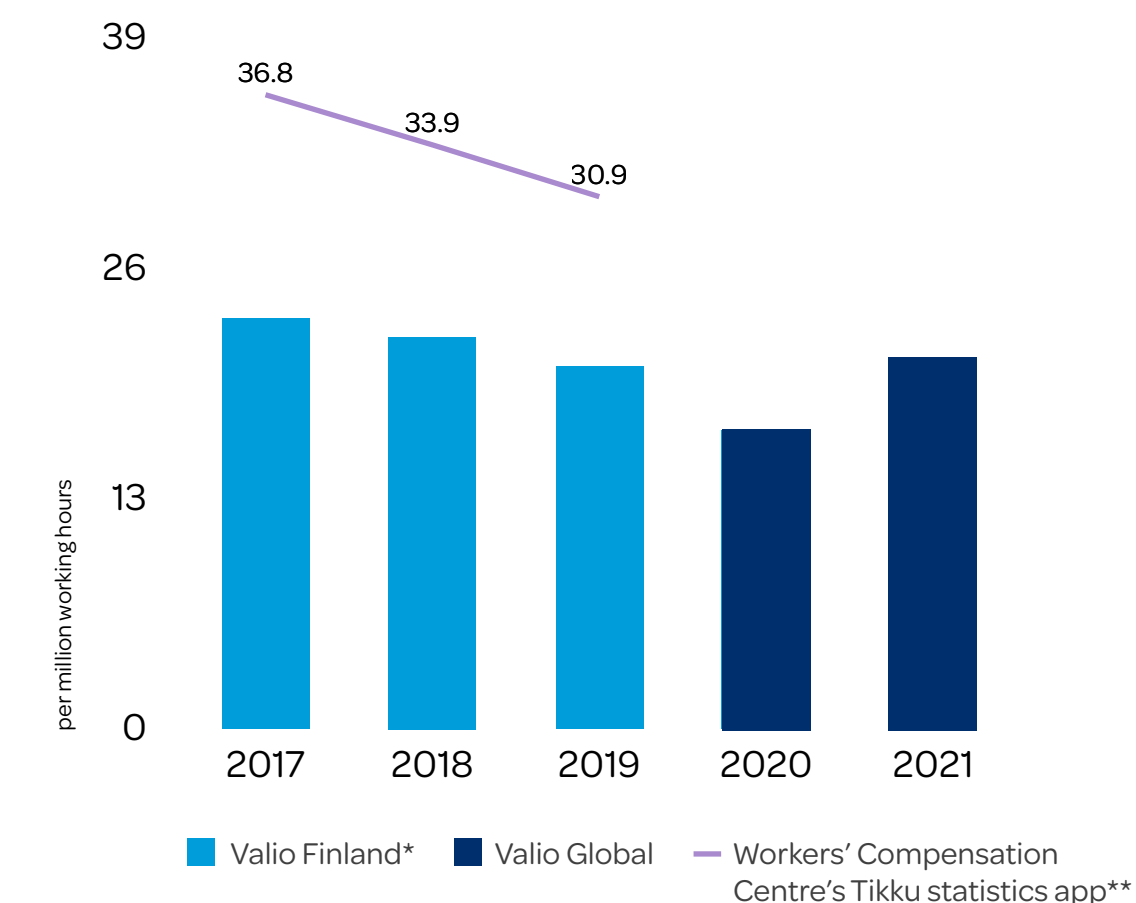
The occupational safety theme in 2021 was Take five for safety. The theme was reflected in the spring campaign and in other communications. We revised our internal procedures on processing and communicating about accidents to facilitate learning within the organisation. At the end of the year, we conducted a gap analysis under the guidance of the consulting and auditing company Kiwa Inspecta to identify remaining areas for improvement related to the ISO 45001 occupational health and safety management system. We will use the results to continue our development work in 2022. Because of the coronavirus pandemic, full progress was not achieved in all the planned occupational safety development projects in 2021. Among other things, the global review of the safety management model was pushed to 2022.



**Occupational safety is a long-term collaboration that requires the efforts of all employees.**

### Accident frequency

Figures for 2017–2019 cover Valio Ltd's accidents in Finland. Starting in 2020, we report accidents globally.

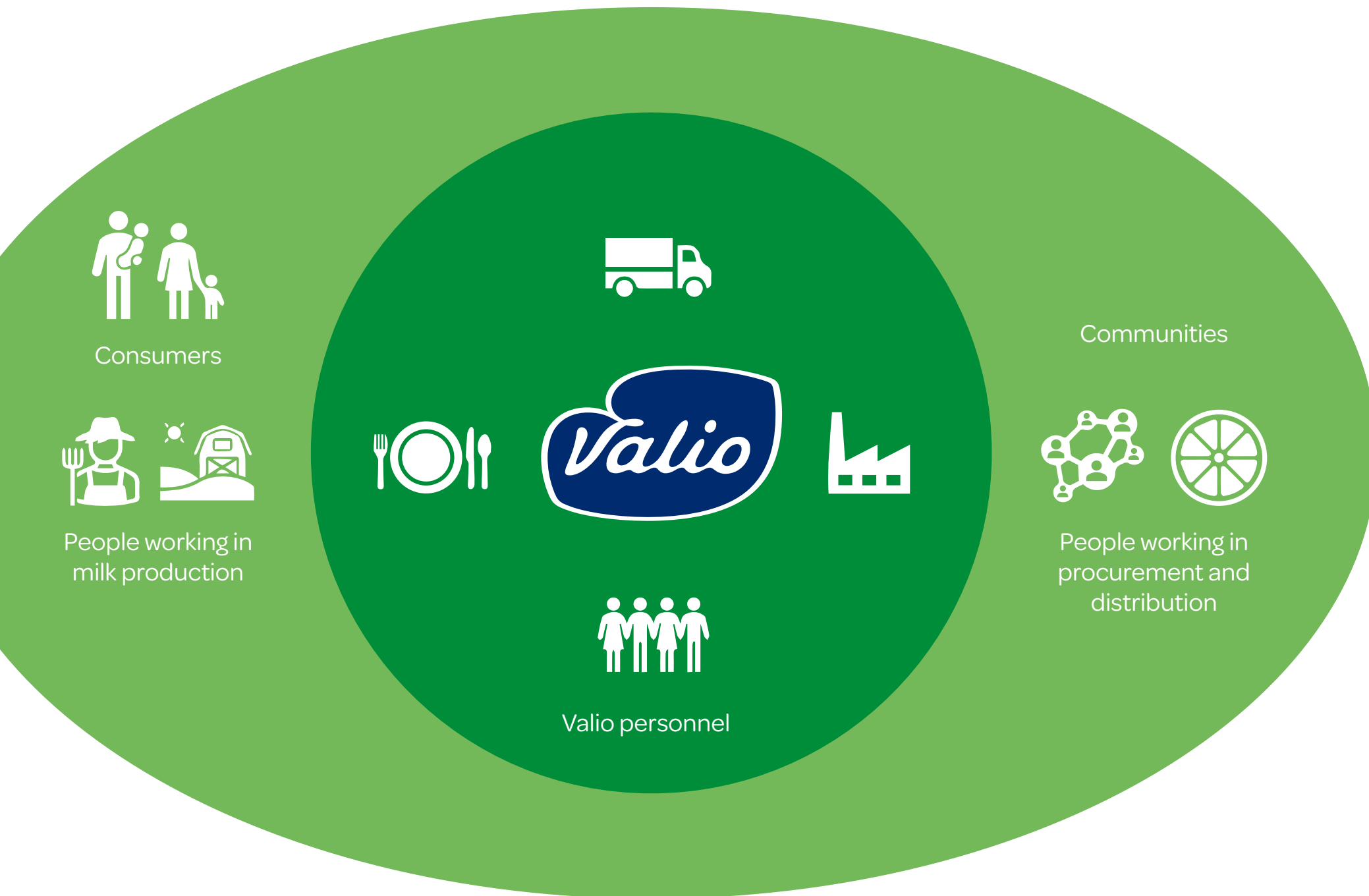


Includes at-work accidents involving Valio Ltd's employees and resulting in an absence from work or in treatment expenses. Does not include professional diseases or commuting. The statistics are compiled in accordance with the recommendations of the Workers' Compensation Centre (lost-time injury, LTI).

\*Valio's Mutual Insurance Company.

\*\*Workers' Compensation Centre, Tikku statistics app.

## Valio's operations impact people directly and indirectly



Valio's internal policies and the mutual interaction among Valio employees have a direct impact on our employees. The outer perimeter shows the people who are indirectly impacted by Valio's own operations or its supply chain.

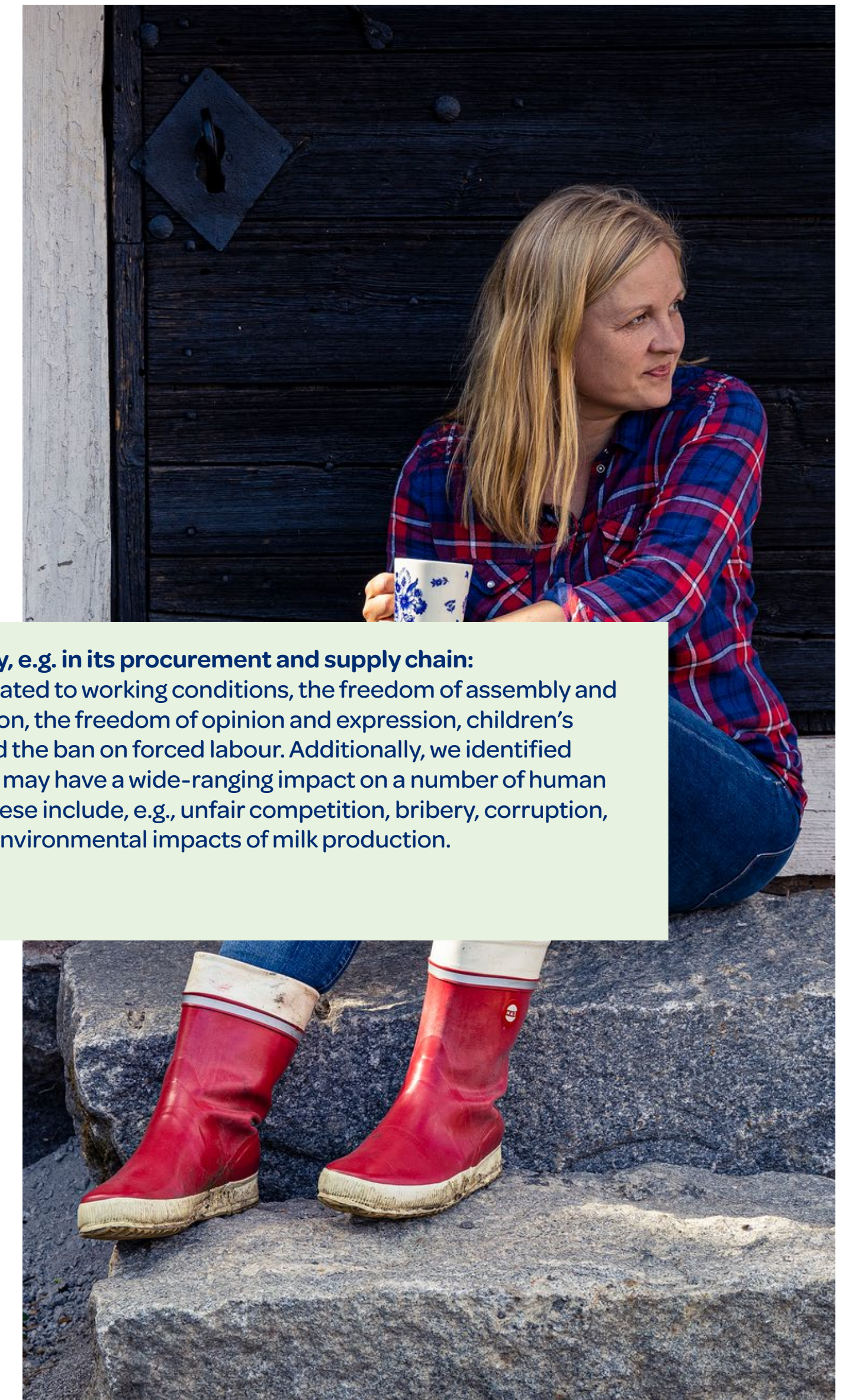
## We respect human rights

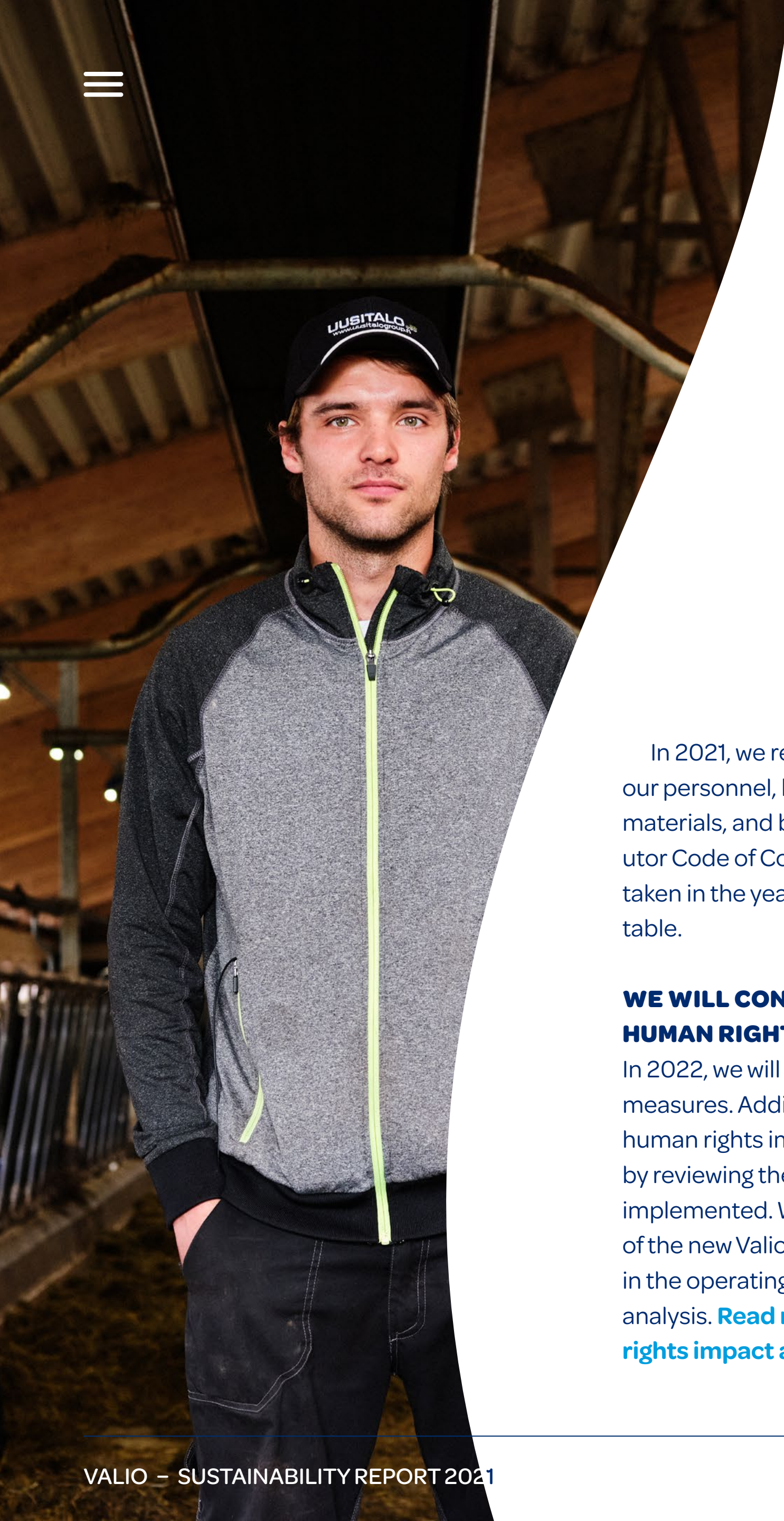
Valio is committed to respecting human rights and business ethics, and to ensuring a fair, equal, supportive, safe and healthy workplace for personnel. The Code of Conduct (Our ways of working – One Valio) covers our human rights policy and guides our personnel. [Read more about the Code of Conduct.](#) →

We carried out an extensive human rights impact assessment in 2019. [Read more about the assessment on our website.](#) →

<p><b>If these risks materialise, Valio can impact on the following human rights:</b></p>	<p><b>Directly in our own operations:</b> Human right to health, safe working conditions, as well as non-discrimination and non-harassment.</p>	<p><b>Indirectly, e.g. in its procurement and supply chain:</b> Rights related to working conditions, the freedom of assembly and association, the freedom of opinion and expression, children's rights and the ban on forced labour. Additionally, we identified risks that may have a wide-ranging impact on a number of human rights. These include, e.g., unfair competition, bribery, corruption, and the environmental impacts of milk production.</p>
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We continuously monitor the materialisation of human rights impacts as part of daily work (meetings, discussions, etc.) and through internal and external reporting channels. Internal findings and incidents, such as hazards and accidents, related to food and occupational safety are reported at our Finnish sites to the relevant observation programme. In other topics, Valio uses the global Valio Whistle reporting channel. We immediately address human rights risks that have materialised, in line with the reporting process.





In 2021, we reduced human rights risks, e.g. by training our personnel, by creating a new policy on high-risk raw materials, and by implementing the Supplier and Distributor Code of Conduct, updated in 2020. All the measures taken in the year are presented in the accompanying table.

**WE WILL CONTINUE AND DEEPEN OUR HUMAN RIGHTS IMPACT ASSESSMENT**

In 2022, we will continue to improve the management measures. Additionally, we will assess the timeliness of human rights impacts and the effectiveness of measures by reviewing the existing assessments and the measures implemented. We will also take into account the impacts of the new Valio Aimo® wholesaler and other changes in the operating environment, and we will deepen our analysis. [Read more about maintenance of the human rights impact assessment. →](#)

Human rights risk	Development target	Measures 2021
<b>Irresponsible activities</b>	<b>Compliance with the Code of Conduct</b>	<ul style="list-style-type: none"> <li>Online training on the Code of Conduct, updated in 2020, provided for all Valio employees globally. <a href="#">Read more about the training. →</a></li> </ul>
<b>Supply chain risks</b>	<b>Supplier and Distributor Code of Conduct requirements</b>	<ul style="list-style-type: none"> <li>Adoption of the Supplier and Distributor Code of Conduct, updated in 2020.</li> <li>Adoption of the global food safety requirements for suppliers</li> <li>Procurement training. <a href="#">Read more about Supplier management. →</a></li> </ul>
<b>Raw material risks</b>	<b>Management of high-risk raw materials</b>	<ul style="list-style-type: none"> <li>High-risk raw material policies (cocoa, palm oil and soy) and their promotion in Valio's operations.</li> <li>More detailed, raw material-specific reviews (e.g. coffee). <a href="#">Read more about raw materials. →</a></li> </ul>
<b>Breach of Valio's values, ethical business principles, regulations or laws</b>	<b>Channel for raising concerns</b>	<ul style="list-style-type: none"> <li>Expanding the Valio Whistle channel to also external stakeholders and development of the process. <a href="#">Read more about the Valio Whistle channel. →</a></li> </ul>
<b>Harassment, discrimination</b>	<b>Equality and non-discrimination</b>	<ul style="list-style-type: none"> <li>Valio Voice survey, Equality task force, update to Equality and non-discrimination programme. <a href="#">Read more about non-discrimination. →</a></li> </ul>
<b>Occupational safety and wellbeing</b>	<b>Improving occupational safety and wellbeing</b>	<ul style="list-style-type: none"> <li>Developed occupational safety and wellbeing in accordance with our global development programme. <a href="#">Read more about occupational safety. →</a></li> </ul>
<b>Environmental impacts</b>	<b>Reducing environmental impacts</b>	<ul style="list-style-type: none"> <li>We identified several environmental impacts that also impact people. <a href="#">Read more about environmental impacts. →</a></li> </ul>



# SUSTAINABILITY FOUNDATION

## The Code of Conduct is the foundation of our work culture

**Valio's Code of Conduct** defines the common rules for Valio employees. It describes our ways of working. The Code of Conduct is based on Valio's values and covers the shared ethical principles applied by Valio and by which Valio employees must conduct themselves.

We use a separate **Supplier and Distributor Code of Conduct** to communicate our sustainability principles to our partners and to define how our partners must take them into account in their operations. As part of the supplier approval process, our supply chain partners commit to compliance with Valio's sustainability principles. [Read more about responsible sourcing.](#) →

In addition to internal communication, all new Valio employees review the Code of Conduct as part of Valio's induction programme. Valio employees also complete Code of Conduct online training every other year. In 2021, our personnel completed training on the renewed Code of Conduct. The training consisted of seven scenarios in which the Valio employee had to apply our shared principles. These scenarios were:

- Gifts and entertaining
- Data security and data protection
- Sponsorships and raffles
- Human rights
- Occupational safety
- Work wellbeing and coping
- Equality and respect for others

As part of the training, Valio employees responded to the application of our ethical principles as follows:



**84%**

**of Valio employees believe that respecting human rights in Valio's operations is important.**

**85%**

**of Valio employees are well informed about Valio's data security and data protection requirements as well as identify situations in which additional information is needed, and they know where to get help.**

Extensive training of production personnel in particular requires careful planning. The completion of training upon arrival of the new employees varies.

Completion of training by country in 2021:

Estonia	100%
Finland	89%
Sweden	100%
USA	100%
Russia	86%
China	100%

We regularly monitor the completion rate of Code of Conduct trainings. Our target is that training is completed by more than 90 per cent of employees in each country. In 2022, we will focus on Code of Conduct training for the personnel working with Valio Aimo® wholesale business, and we will deepen the training content of the previous year with discussions on ethical scenarios.

### **Anti-corruption and anti-bribery**

We have zero tolerance for all forms of bribery and corruption. In our operations, we comply with anti-corruption and anti-bribery laws and the principles outlined in Valio's Code of Conduct. We prevent corruption and conflicts of interest also through internal investment and procurement and sales contract approval policies and a contract signing policy. We have defined internal Trade Compliance guidelines to identify customers and suppliers. The purpose of identifying customers and

suppliers is to prevent corruption, money laundering and the funding of terrorism.

We comply with Valio's internal guidelines in receiving and offering gifts and hospitality and in avoiding conflicts of interest. Every Valio employee must report any illegal or unethical activity they observe to Valio's CEO, HR Manager, Legal Affairs, or Risk Management. The report can be made also anonymously through the Valio Whistle reporting channel.

### **WE OPENED THE VALIO WHISTLE CHANNEL ALSO TO EXTERNAL STAKEHOLDERS**

Internal and external stakeholders can use the Valio Whistle channel to report activities related to Valio that are not in compliance with Valio's values, ethical principles or the law. The reporting channel can be used to confidentially and anonymously report serious concerns related to Valio's operations or practices.

In 2021, we received 24 reports through the Valio Whistle channel and two reports from outside the channel. We handled all the reports in accordance with the relevant management process. The report topics varied from inappropriate conduct to Code of Conduct violations and responsibility.

During the year we conducted an extensive review of the requirements and situation with regard to reporting channels in Finland; the sources and tools we used included UN principles, legislation, Corporate Human Rights Benchmark methodology, studies and interviews. Based on the review, we drafted a stakeholder analysis that took into account the stakeholders' expectations related to Valio's responsibility actions, the role as a potential whistleblower, and the perspectives and forms

of stakeholder dialogue to be considered when designing the channel. As a result of the work, we updated our reporting process and expanded its use also to external stakeholders. We also clarified the classification of reports and subsequent measures. We will begin reporting about the reports in line with the new classification in 2023. [Read more about how the reporting channel works and the handling process.](#) →







## Transparent supply chain

The most important areas of responsible sourcing are food safety, supply chain transparency, social responsibility and environmental responsibility. Together with the product categories, the sourcing team, product development, the food safety team and packaging development, we verify the quality, safety, and origin of the raw materials, as well as the regulatory compliance of the packaging. We require also our suppliers and subcontractors to commit to our responsible ways of working.

**Valio's sourcing policy** and principles guide our procurements. We ensure the food safety and responsibility of the supply chain through a supplier approval and management process. Our suppliers must commit to Valio's **Supplier and Distributor Code of Conduct**. Suppliers who supply food or food safety-related products or services to Valio must commit to compliance with Valio's food safety-related requirements and guidelines. [Read more about supplier management procedures.](#) →

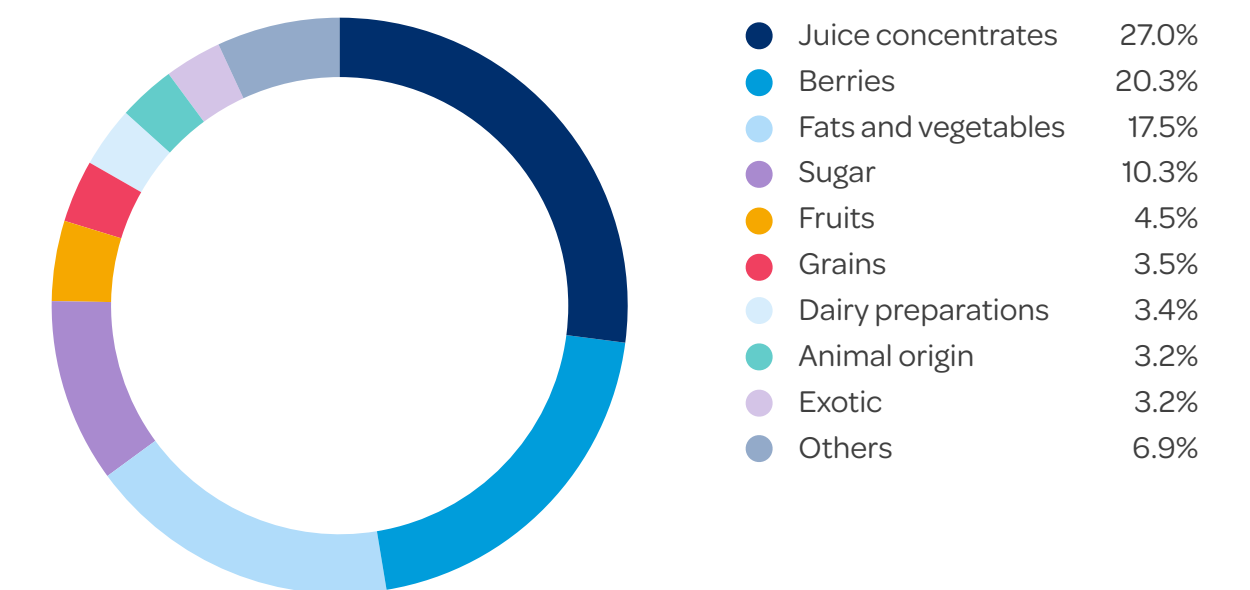
### MILK AND OTHER RAW MATERIAL SOURCING

Milk accounts for more than 95 per cent of the raw material kilos used in the products we make in Finland. All the products made and sold in Finland are made from Finnish milk which Valio sources from its cooperatives. [Read more about sustainable dairy farming.](#) →

Products manufactured in other countries are made using local milk. We always aim for raw materials and end products of a high quality.

In addition to milk, our raw ingredients include, e.g., juice concentrates, berries, vegetable oils, sugar, fruits and grains. We know the raw materials supply chain all the way to the manufacturer. The raw material categories we use, excluding milk, and their percentage of our procurements in Finland are presented here.

### Raw material categories, 2021



**SOURCING OF MATERIALS AND SERVICES**

The sourcing of materials and services that support production and operations, i.e. indirect sourcing, accounts for a big part of our procurements. The biggest indirect procurement categories are logistics, maintenance, marketing, real estate maintenance and IT.

**WE MONITOR THE RESPONSIBILITY OF SUPPLIERS AND DISTRIBUTORS**

In 2021, we updated the supplier approval process. We started to more systematically commit suppliers to the Supplier and Distributor Code of Conduct, which we updated in 2020.

In the direct sourcing of raw materials and packaging materials, we require all suppliers to commit to Valio's Supplier and Distributor Code of Conduct. We have about 230 such suppliers. In indirect sourcing, we have about 3,800 suppliers. In line with our updated approval processes, we require our approximately 1,200 main suppliers to commit to Valio's Supplier and Distributor Code of Conduct. In 2021, about 25 per cent of the existing suppliers signed the new Code of Conduct. The supplier cooperation varies from continuous to project-specific cooperation. We will continue the supplier commitment process in 2022.

We are continuously expanding the responsibility perspective in the supplier approval process. In addition to the existing supplier surveys, in 2021 we developed and tested a new sustainability survey; it will be taken into use for raw material and packaging material manufacturers in 2022. The survey takes into account a wide range of

supplier responsibility practices, including environmental and social responsibility. We will use the survey to identify suppliers whose advancement of responsible practices requires more verification and cooperation.

We audit our suppliers on the basis of risk assessments. Our own audits are focused on ensuring food safety and quality. In other responsibility aspects, we use Sedex Members Ethical Trade Audit (Smeta) and Business Social Compliance Initiative (BSCI) audits conducted by third parties. Because of the prolonged pandemic, we haven't been able to audit the suppliers as planned. However, we have conducted remote audits and some on-site audits.

Less than 0.1 per cent of our raw materials are from countries that Amfori BSCI has classified as risk countries. We use the Sedex risk assessment tools to monitor the results of the responsibility assessments and audits (Smeta) of our suppliers. Our aim is to become an Amfori BSCI member in early 2022 and to then utilise the BSCI audit results more comprehensively.

We aim for uniform practices in all our operating countries. The supplier and distributor approval practices and classification from different responsibility perspectives were introduced to our subsidiaries in 2021, and they started implementing the practices. In 2022, we will focus on the development of supplier management practices in trading products.



**RESPONSIBLE SOURCING PROGRAMME**

One area of Valio's strategic sustainability initiative area is our customers' expectations for responsible business. With that in mind, we created a responsible sourcing programme containing principles and goals and a roadmap. The aim is that our sourcing will be more sustainable from an environmental, economic, and social responsibility perspective, and we will be able to monitor our progress and better respond to customer expectations.

In conjunction with the programme, we arranged joint workshops for procurement personnel, and we participated in webinars and in theses work. These helped to increase the understanding of different aspects of sustainability, as well as to define longer term targets for responsible sourcing and to plan measures to achieve the targets.

The advancement of the programme and the realisation of its targets are regularly reported to the Valio Executive Board in the sustainability forum.

In direct sourcing, i.e. in the procurement of raw materials and packaging, ensuring food safety is critical. The approval of new suppliers, manufacturers, raw materials and packaging materials requires continuous work, as does maintaining approval of existing suppliers and manufacturers. Certificates and surveys must be updated and renewed regularly.

The coronavirus pandemic has created challenges for our suppliers: for example, certification audits have not

been carried out within the planned timetable, and there have been delays in issuing certificates. We also worked to advance raw material policies by exploring alternative certified **raw materials**.

In indirect sourcing, e.g. in the procurement of services, our aim is to identify key procurement categories with high liability risks and, together with our suppliers, plan measures to mitigate the risks. In 2021, we clarified our targets and procedures in procurement's joint workshops. We want to develop a systematic process for identifying liability risks as part of procurement category strategy work. In 2021, we prepared the assessment tool needed to identify the risks. We will continue working on it in 2022.

To assess the climate impacts and carbon footprint of procurements, in 2021 we tested a tool that would help us to identify the procurement categories with the biggest CO2 emissions. Based on the test results, we adopted the tool. The aim is to start pilots with suppliers in the procurement categories with the biggest climate emissions. In the pilots, we aim to find good ways to work together and to agree on common measures to reduce emissions with our key suppliers.

We want to make the procurement sustainability work more systematic, and the responsibility topics have already been included in supplier cooperation and meetings.



**Responsibility work with Berner is done in partnership and with a dialogue**

"We have required suppliers to operate responsibly by having them commit to Valio's Supplier and Distributor Code of Conduct. But we haven't had more in-depth information about their sustainability actions and achievements," notes Valio's Purchasing Manager **Antti Tapiola**.

"To help to ensure the responsibility of our supply chain, we decided to open a dialogue with our suppliers' sales and experts. The aim was to discuss sustainability programmes, actions, achievements and targets with a broader group of people to get a more complete picture of our suppliers' sustainability work."

The cooperation was deepened with Berner, for example. Berner is a family-owned

Finnish company that supplies Valio with direct and indirect sourcing products, like juice concentrates, various salts, vinegar, and laboratory equipment, accessories and reagents. Berner also provides servicing of the laboratory equipment it sells.

"We arranged a sustainability workshop with Berner. Both companies found the workshop to be a success, and, in fact, we agreed to continue the open dialogue also going forward. We have strong confidence in advancing issues both in business and in sustainability, which requires continuous development. We are already planning a sparring session about Valio's sustainability survey for indirect suppliers," Tapiola says.

## Governance and remuneration

Finnish milk producers own Valio through cooperatives and we always pay out our operational profit to the milk producers. Valio's Board of Directors, comprising four Valio dairy farmers, assesses how much Valio can afford to pay the cooperatives for the milk at any given time. We pay cooperatives a milk price for the received milk. The cooperatives pay a producer price to the farms and independently decide on changes in the milk producer price. The Board of Directors also monitors Valio's operative management's activities and the business. The Board members belong to the five cooperatives that deliver milk to Valio. Valio is owned by a total of 13 cooperatives.

Valio Ltd's decision-making bodies are the Annual General Meeting, the Supervisory Board and the Board of Directors. Additionally, Valio's Executive Board is responsible for the day-to-day management of the business operations and exercises operational decision-making power.

[Read more about the activities and key individuals of Valio's governance bodies and the Executive Board. →](#)

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

### SUPERVISORY BOARD REMUNERATION

In 2021, Valio's Supervisory Board was paid a total of EUR 166,060 in monthly and meeting fees.

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

### BOARD OF DIRECTORS REMUNERATION

In 2021, Valio's Board of Directors was paid a total of EUR 181,480 in monthly and meeting fees.

- Chairman EUR 3,820/month
- Vice Chairman EUR 2,720/month
- Member EUR 2,220/month
- Meeting fee 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, such as a car and phone, Valio's upper management has profit-sharing targets and retirement benefits. In 2021, Valio Group's Executive Board included six members and the CEO. Members of the Executive Board were paid salaries and bonuses as follows:

- Total salaries and bonuses EUR 2,773,259



## Risk management

The aim of risk management is to identify significant events and uncertainties that can affect the achievement of Valio's strategic, operational and financial targets, and cause accidents. Proactive risk management helps to prevent risks from materialising and to see opportunities more clearly.

As a significant receiver of milk and a manufacturer and distributor of food products, the continuity of business operations, processes and information systems is critical for Valio. Our goal is to keep delivery reliability to our customers at a high level every day while also taking care of the beginning of the chain, i.e. the throughput of milk produced by the owners. As a security of supply-critical company, Valio's business has a societal dimension – securing the food supply of Finns not only in everyday life and celebrations, but also in exceptional situations.

Food safety and quality are at the core of Valio's risk management. If these fail, there is a risk of personal injury caused by the products as well as potential liability risks for consumers and Valio's customer companies. The occupational safety target is zero injuries and accidents.

Reputational risks damaging the Valio brand are also linked to the issues mentioned above.

Each function and subsidiary is responsible for identifying and managing the risks in its own area. The Risk Management Office supports the risk management work of the organisations by developing risk management procedures and is responsible for the Group's Enterprise Risk Management. The three focus levels of risk identification are legislative and regulatory risks (compliance), operational and project risks, and business risks. Group-level peak risks can emerge in any organisational level and impact the parent company and the subsidiaries.

The Risk Management Office governs Valio Ltd's non-life insurance policies and the insurance programmes covering the entire Group. It also guides the insurance activities in the subsidiaries. Insurance policies are hedges against risks of damage that significantly impact Valio Group's ability to operate. Insurance coverage and adequacy of insurance amounts are continuously assessed, e.g. in conjunction with the risk mapping of sites, taking into account the Group-level perspective.





SUSTAINABILITY REPORTING AND SCOPE [71](#)

GRI INDEX [72](#)

# Reporting

## Sustainability reporting and scope

We report Valio's financial and sustainability results once per year. The Sustainability Report is published in conjunction with the publication of Valio's Board of Directors' Report and Financial Statements. The Sustainability Report covers the same Valio operations and its financial figures include the same information as Valio's Financial Statements. The financial figures are based on data verified by a third party (PricewaterhouseCoopers).

This Sustainability Report covers Valio's activities in 2021 and early 2022. It covers Valio's operations in Finland and, in part, in its other operating countries. In conjunction with the figures and other information, the relevant operations are specified.

The Sustainability Report complies with the requirements of the updated indicators of the Global Reporting Initiative (GRI). In the sustainability reporting, Valio has focused on the information's accuracy, balance, clarity, comparability, timeliness, completeness, sustainability context, and reliability. [The GRI standards comparison table.](#) →



## GRI INDEX

GRI STANDARDS DISCLOSURE		LOCATION	COMMENTS
<b>GRI 2: GENERAL DISCLOSURES (2021)</b>			
<b>Organizational profile</b>			
2-1	Organizational details	pp. 3, 5	<a href="http://www.valio.com/we-are-valio/">www.valio.com/we-are-valio/</a>
2-2	Entities included in the organization's sustainability reporting	pp. 3, 71	
2-3	Reporting period, frequency and contact point	p. 71	mediadesk@valio.fi +358 10 381 2118  Date of the report: 27th April 2022
2-4	Restatements of information	GRI index	No restatements to the previously reported information.
2-5	External assurance	GRI index	The report has not been externally assured.
<b>Activities and workers</b>			
2-6	Activities, value chain and other business relationships	pp. 3-4, 13, 65-67	
2-7	Employees	pp. 57-58	In 2021, Valio employed 288 summer workers.
2-8	Workers who are not employees		The wholesale business employs a variable number of temporary employees who are not in Valio's or Valionova's payroll. Temporary workers are able to make up for unexpected absences and provide flexibility to fluctuation in volume.



GRI STANDARDS DISCLOSURE		LOCATION	COMMENTS
<b>Governance</b>			
2-9	Governance structure and composition		<a href="http://www.valio.com/we-are-valio/company/owners-and-governance/">www.valio.com/we-are-valio/company/owners-and-governance/</a>
2-10	External initiatives		<a href="http://www.valio.com/we-are-valio/company/owners-and-governance/">www.valio.com/we-are-valio/company/owners-and-governance/</a>
2-11	Chair of the highest governance body		<a href="http://www.valio.com/we-are-valio/company/owners-and-governance/">www.valio.com/we-are-valio/company/owners-and-governance/</a>
2-12	Role of the highest governance body in overseeing the management of impacts	pp. 11, 15	
2-13	Delegation of responsibility for managing impacts	p. 15	
2-14	Role of the highest governance body in sustainability reporting	pp. 11, 15	Valio's Executive board has approved the material topics, other reporting topics have been approved by the director responsible for the specific topic. The sustainability report has been approved by the member of the Management Team responsible for Sustainability and Stakeholder Relations.
2-15	Conflicts of interest	GRI index	In addition to the Code of Conduct, Valio has "668 MGT Valio Ltd Ethical guidelines - Bribery and conflicts of interest" procedure in place. This does not contain all the reporting requirements of the GRI standard.
2-16	Communication of critical concerns	p. 64	<a href="http://www.valio.com/sustainability/responsible-leadership/valio-whistle-channel">www.valio.com/sustainability/responsible-leadership/valio-whistle-channel</a>
2-17	Collective knowledge of the highest governance body	p. 15	
2-18	Evaluation of the performance of the highest governance body		Valio's Board of Directors regularly evaluates its performance as a self-assessment.
2-19	Remuneration policies	p. 68	Omitted due to confidentiality constraint.
2-20	Process to determine remuneration	p. 68	Omitted due to confidentiality constraint.
2-21	Annual total compensation ratio	GRI index	Omitted due to confidentiality constraint.



GRI STANDARDS DISCLOSURE			LOCATION	COMMENTS
<b>Strategy, policies and practices</b>				
2-22	Statement on sustainable development strategy	p. 8		
2-23	Policy commitments	pp. 15, 37, 52, 59, 60-61, 63-65	<a href="http://www.valio.com/sustainability/responsible-leadership/policies">www.valio.com/sustainability/responsible-leadership/policies</a>	
2-24	Embedding policy commitments	pp. 11, 61-66		
2-25	Processes to remediate negative impacts	pp. 61-62, 64		
2-26	Mechanisms for seeking advice and raising concerns	pp. 61, 64	<a href="http://www.valio.com/sustainability/responsible-leadership/valio-whistle-channel">www.valio.com/sustainability/responsible-leadership/valio-whistle-channel</a>	
2-27	Compliance with laws and regulations	p. 64		
2-28	Membership associations	p. 24	<a href="http://www.valio.com/we-are-valio/company/stakeholder-relations">www.valio.com/we-are-valio/company/stakeholder-relations</a>	
<b>Stakeholder engagement</b>				
2-29	Approach to stakeholder engagement	pp. 22-26		
2-30	Collective bargaining agreements	p. 58		The unions are not known for the subsidiaries.



GRI STANDARDS DISCLOSURE			LOCATION	COMMENTS
<b>GRI 3: MATERIAL TOPICS (2021)</b>				
3-1	Process to determine material topics		pp. 16-17	
3-2	List of material topics		pp. 16-18	
3-3	Management of material topics		pp. 15, 18-20, 37, 61-62	<a href="http://www.valio.com/sustainability/sustainability-in-production/resource-efficiency">www.valio.com/sustainability/sustainability-in-production/resource-efficiency</a>
<b>ECONOMIC STANDARDS</b>				
<b>GRI 201: Economic performance (2016)</b>				
201-2	Financial implications and other risks and opportunities due to climate change		pp. 28-30	Board of Directors' Report 2021
201-3	Defined benefit plan obligations and other retirement plans		<a href="http://www.valionelakekassa.fi/yritys/">www.valionelakekassa.fi/yritys/</a> (in Finnish)	
<b>GRI 203: Indirect economic impacts (2016)</b>				
203-1	Infrastructure investments and services supported		pp. 32-35	
203-2	Significant indirect economic impacts		pp. 3-4, 14, 40, 53	
<b>GRI 204: Procurement practices (2016)</b>				
204-1	Proportion of spending on local suppliers		p. 65	
<b>GRI 205: Anti-corruption (2016)</b>				
205-2	Communication and training about anti-corruption policies and procedures		pp. 63-64	
205-3	Confirmed incidents of corruption and actions taken		p. 64	
<b>GRI 206: Anti-competitive behavior (2016)</b>				
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices		GRI index	No cases in 2021.

GRI STANDARDS DISCLOSURE			LOCATION	COMMENTS
<b>ENVIRONMENTAL STANDARDS</b>				
<b>GRI 301: Materials (2016)</b>				
301-1	Materials used by weight or volume		p. 39	
<b>GRI 302: Energy (2016)</b>				
302-1	Energy consumption within the organization		pp. 36-37	
302-4	Reduction of energy consumption		pp. 36-37	
<b>GRI 303: Water and Effluents (2018)</b>				
303-1	Interactions with water as a shared resource			<a href="http://www.valio.com/sustainability/sustainability-in-production/resource-efficiency">www.valio.com/sustainability/sustainability-in-production/resource-efficiency</a>
303-2	Management of water discharge-related impacts			<a href="http://www.valio.com/sustainability/sustainability-in-production/resource-efficiency">www.valio.com/sustainability/sustainability-in-production/resource-efficiency</a>
303-3	Water withdrawal		s. 38	Valio does not use sea water.
303-4	Water discharge		s. 38	Valio does not use sea water.
<b>GRI 304: Biodiversity (2016)</b>				
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas		GRI index	Valio's production sites are located in areas marked as industrial areas and thus, not located in or nearby areas that have an official environmental protection class.
304-2	Significant impacts of activities, products, and services on biodiversity		pp. 44-45	
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations		GRI index	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.



GRI STANDARDS DISCLOSURE			LOCATION	COMMENTS
<b>GRI 305: Emissions (2016)</b>				
305-1	Direct (Scope 1) GHG emissions		pp. 30-31	
305-2	Energy indirect (Scope 2) GHG emissions		pp. 30-31	
305-3	Other indirect (Scope 3) GHG emissions		pp. 30-31	
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions		p. 39	
<b>GRI 306: Waste (2020)</b>				
306-1	Waste generation and significant waste-related impacts		p. 39	
306-2	Management of significant waste-related impacts			<a href="http://www.valio.com/sustainability/sustainability-in-production/resource-efficiency">www.valio.com/sustainability/sustainability-in-production/resource-efficiency</a>
306-3	Waste generated		p. 39	
306-4	Waste diverted from disposal		p. 39	
<b>SOCIAL STANDARDS</b>				
<b>GRI 401: Employment (2016)</b>				
401-1	New employee hires and employee turnover		pp. 58-59	
<b>GRI 403: Occupational health and safety (2018)</b>				
403-1	Occupational health and safety management system		p. 15	<a href="http://www.valio.com/sustainability/sustainability-in-production/wellbeing-and-safety-at-work">www.valio.com/sustainability/sustainability-in-production/wellbeing-and-safety-at-work</a>
403-2	Hazard identification, risk assessment, and incident investigation		p. 60	<a href="http://www.valio.com/sustainability/sustainability-in-production/wellbeing-and-safety-at-work">www.valio.com/sustainability/sustainability-in-production/wellbeing-and-safety-at-work</a>
403-3	Occupational health services		pp. 55-56	
403-4	Worker participation, consultation, and communication on occupational health and safety		pp. 55-56, 58, 60	<a href="http://www.valio.com/sustainability/sustainability-in-production/wellbeing-and-safety-at-work">www.valio.com/sustainability/sustainability-in-production/wellbeing-and-safety-at-work</a>



GRI STANDARDS DISCLOSURE		LOCATION	COMMENTS
403-5	Worker training on occupational health and safety	p. 60	<a href="http://www.valio.com/sustainability/sustainability-in-production/wellbeing-and-safety-at-work">www.valio.com/sustainability/sustainability-in-production/wellbeing-and-safety-at-work</a>
403-6	Promotion of worker health	pp. 55-56, 60	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	p. 60	<a href="http://www.valio.com/sustainability/sustainability-in-production/wellbeing-and-safety-at-work">www.valio.com/sustainability/sustainability-in-production/wellbeing-and-safety-at-work</a>
403-9	Work-related injuries	p. 60	<a href="http://www.valio.com/sustainability/sustainability-in-production/wellbeing-and-safety-at-work">www.valio.com/sustainability/sustainability-in-production/wellbeing-and-safety-at-work</a>
<b>GRI 404: Training and education (2016)</b>			
404-1	Average hours of training per year per employee	pp. 57-58	
404-2	Programs for upgrading employee skills and transition assistance programs	pp. 57- 59	Valio has several procedures in place for changes in working life, including in the event of retirement, e.g. age program, transmission of tacit knowledge and arrangements for flexible working and working time.
404-3	Percentage of employees receiving regular performance and career development reviews	p. 56	
<b>GRI 405: Diversity and equal opportunity (2016)</b>			
405-1	Diversity of governance bodies and employees	p. 57	<a href="http://www.valio.com/we-are-valio/company/owners-and-governance/">www.valio.com/we-are-valio/company/owners-and-governance/</a>
<b>GRI 406: Non-discrimination (2016)</b>			
406-1	Incidents of discrimination and corrective actions taken	p. 64	
<b>GRI 416: Customer health and safety (2016)</b>			
416-1	Assessment of the health and safety impacts of product and service categories	p. 51	
<b>GRI 417: Marketing and labelling (2016)</b>			
417-1	Requirements for product and service information and labeling	pp. 52, 54	All labeling of Valio's products is subject to legislation.



[www.valio.com](http://www.valio.com)