

# SUSTAINABILITY REPORT



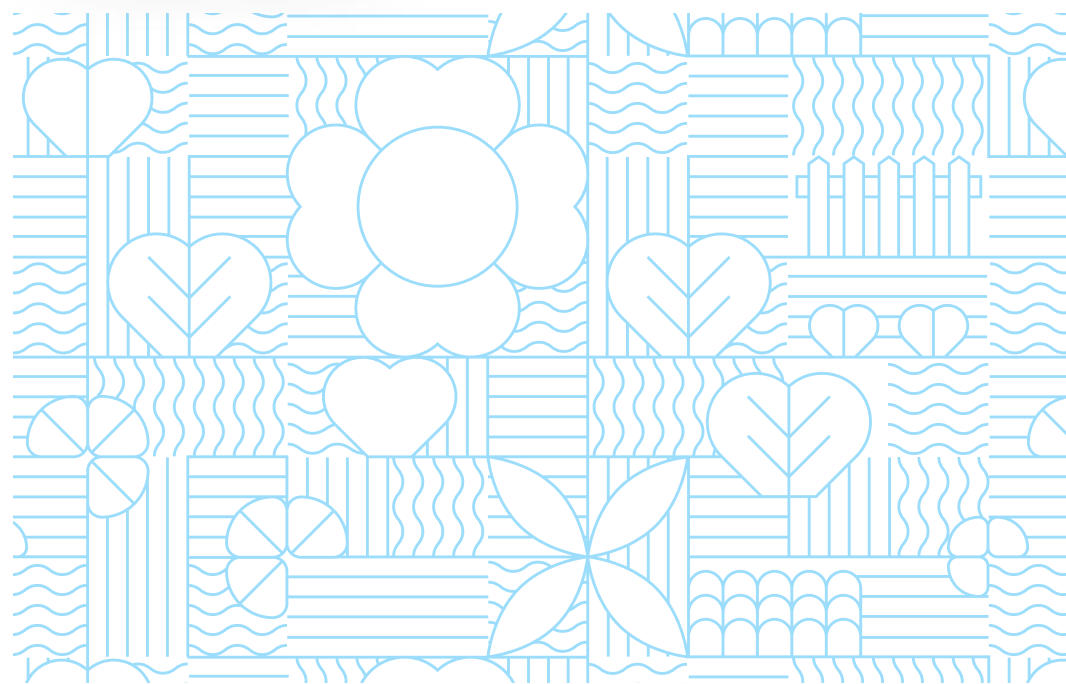
2023





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# VALIO IN BRIEF

Valio is Finland's leading dairy and food company and Finland's biggest exporter of food products. We produce delicious, high-quality milk- and plant-based products, and we also operate in the wholesale sector. Our joint stake in Suomen Lantakaasu Oy promotes a circular economy by producing biogas from dairy farm manure. We employ 4,211 people in Finland, Sweden, Estonia, China and the United States.



## Personnel 31 Dec 2023

FINLAND	BALTICS (ESTONIA)	SWEDEN	USA	CHINA
3,634	458	68	25	26

FOUNDED IN  
**1905**

**Market leader  
in dairy products  
in Finland**

**Nobel prize  
in chemistry**  
IN 1945

**2,3  
bn**  
TURNOVER

PLANT BASED PRODUCTS  
**ODDLY-GOOD**  
AND  
**GOLD&GREEN®**  
OF HELSINKI

**3,400**  
DAIRY FARMERS  
OWN VALIO

**25%**  
VALIO'S SHARE OF  
FINNISH FOOD EXPORT

VALIO  
**Aimo**  
WHOLESALE

**All profits  
for the farmers**



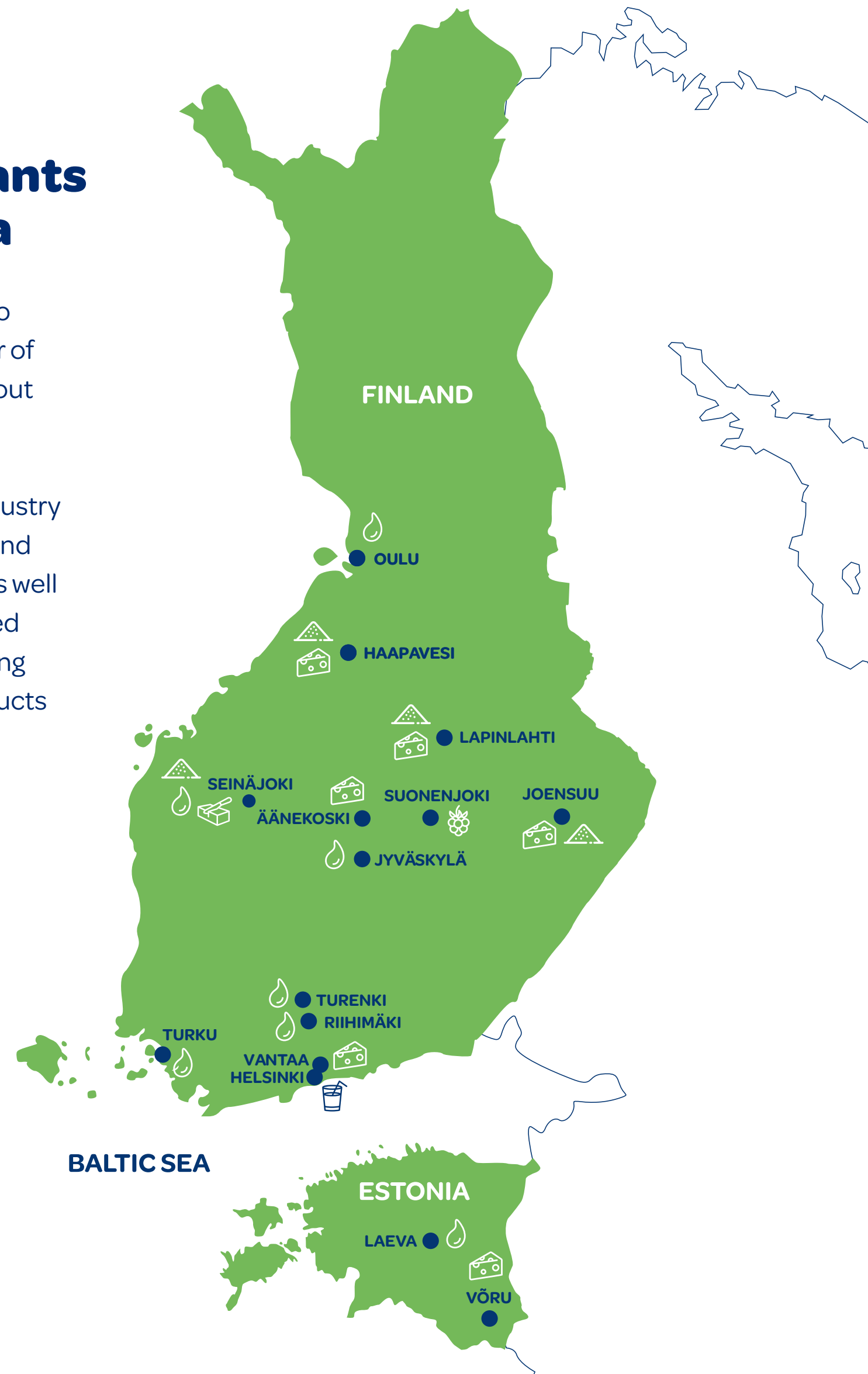


## Valio's production plants in Finland and Estonia

**VALIO HAS 13 PLANTS** in Finland and two in Estonia. We are Finland's largest exporter of food products. Our exports account for about 25 per cent of Finland's total food exports.

We export products for consumers and industry to roughly 50 countries. We supply butter and milk powders for use in the food industry, as well as snack products, cheeses and plant-based products for consumers. About 200 shipping containers and export loads of Valio's products leave Finland every week.

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

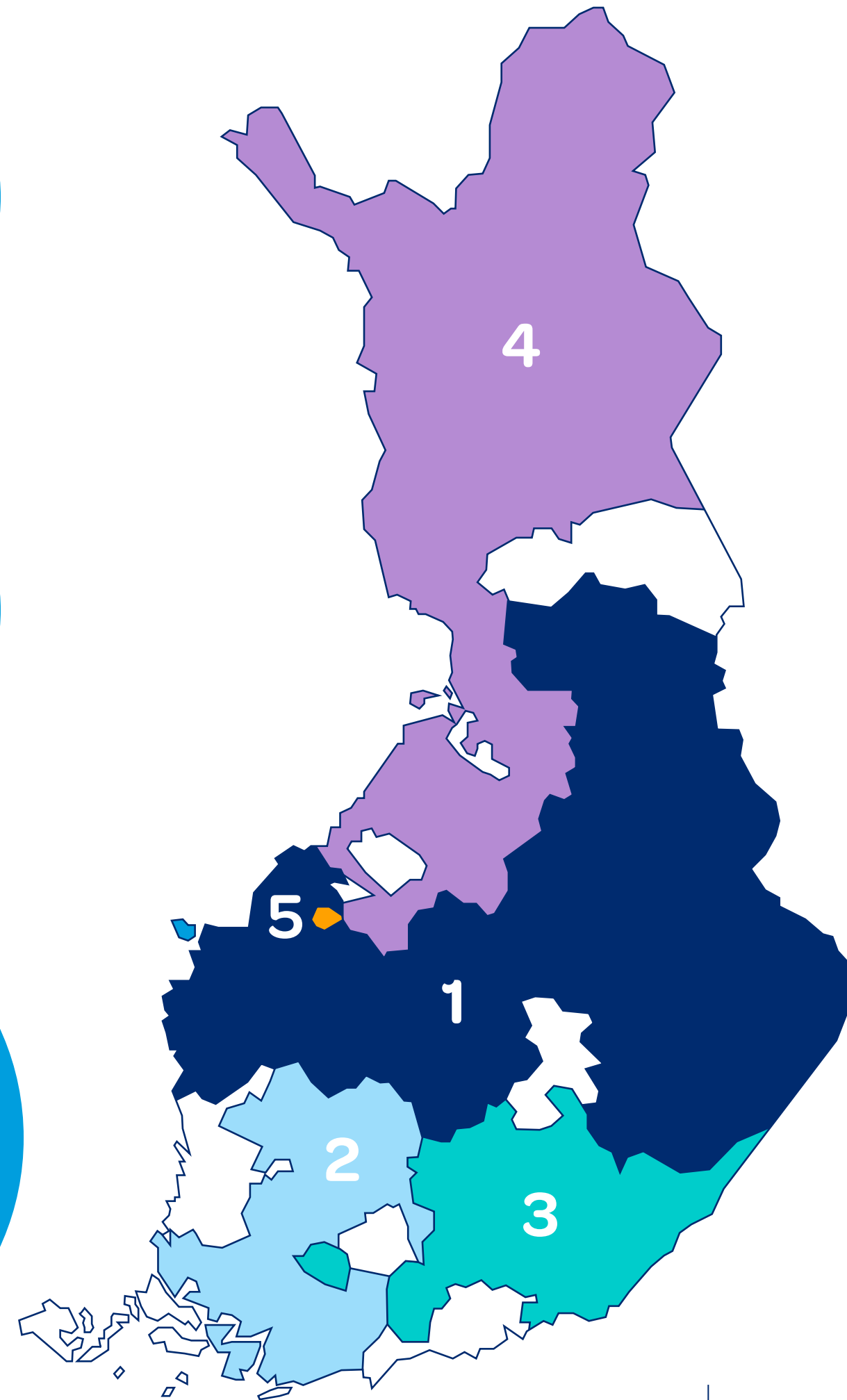
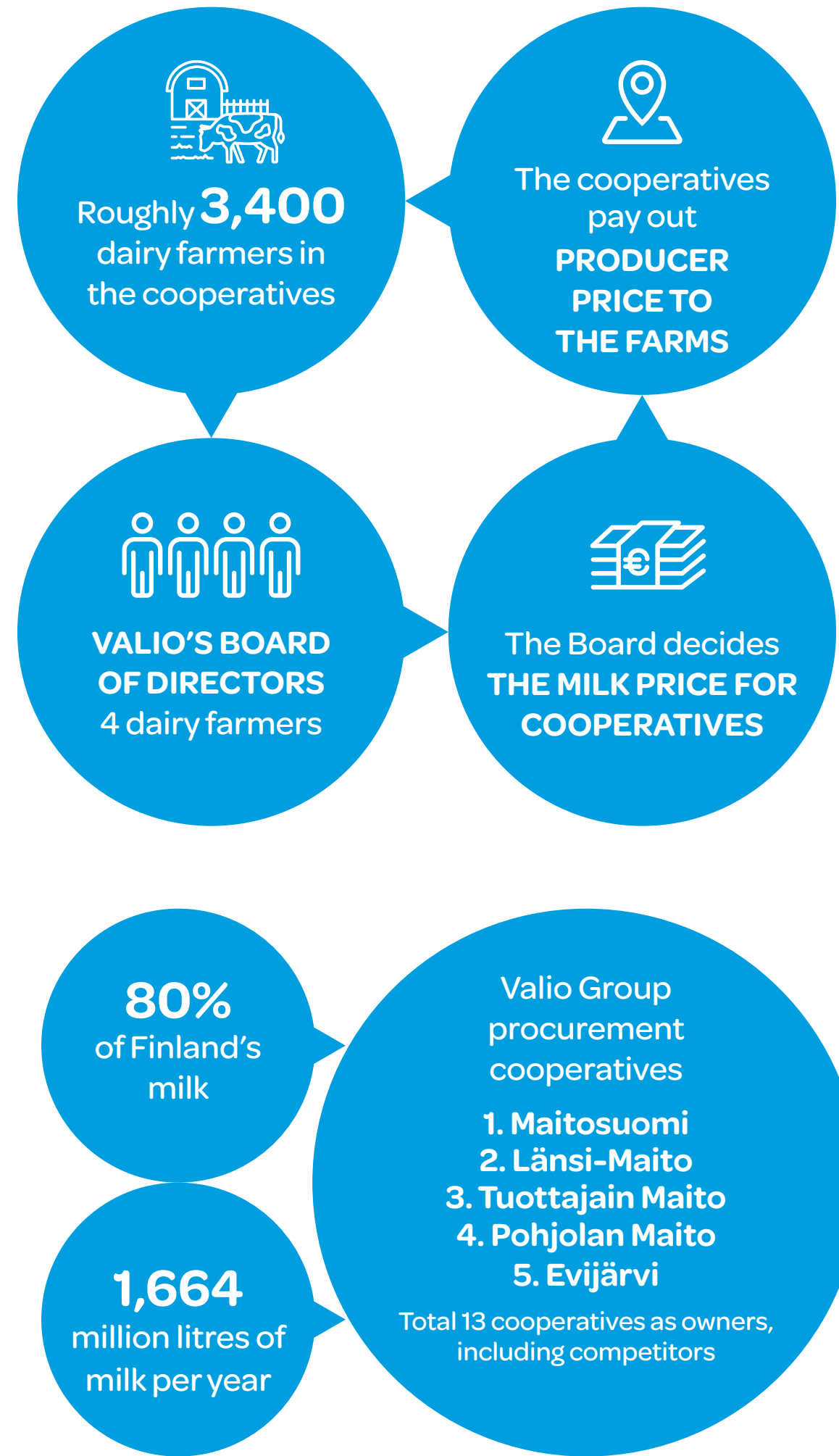


## Together we make life better

**VALIO'S TRADITIONS** go way back in Finland's history. We have over 100 years of experience in delicious dairy products. Finnish dairy farms established Valio in 1905 to export butter. In recent years, also plant-based products have emerged strongly alongside dairy products. Innovative products, a pioneering spirit, as well as product development and research expertise have been the drivers behind our success ever since Nobel Laureate A. I. Virtanen headed Valio's laboratory. In addition to our products, this heritage is reflected in our biogas business, for example.







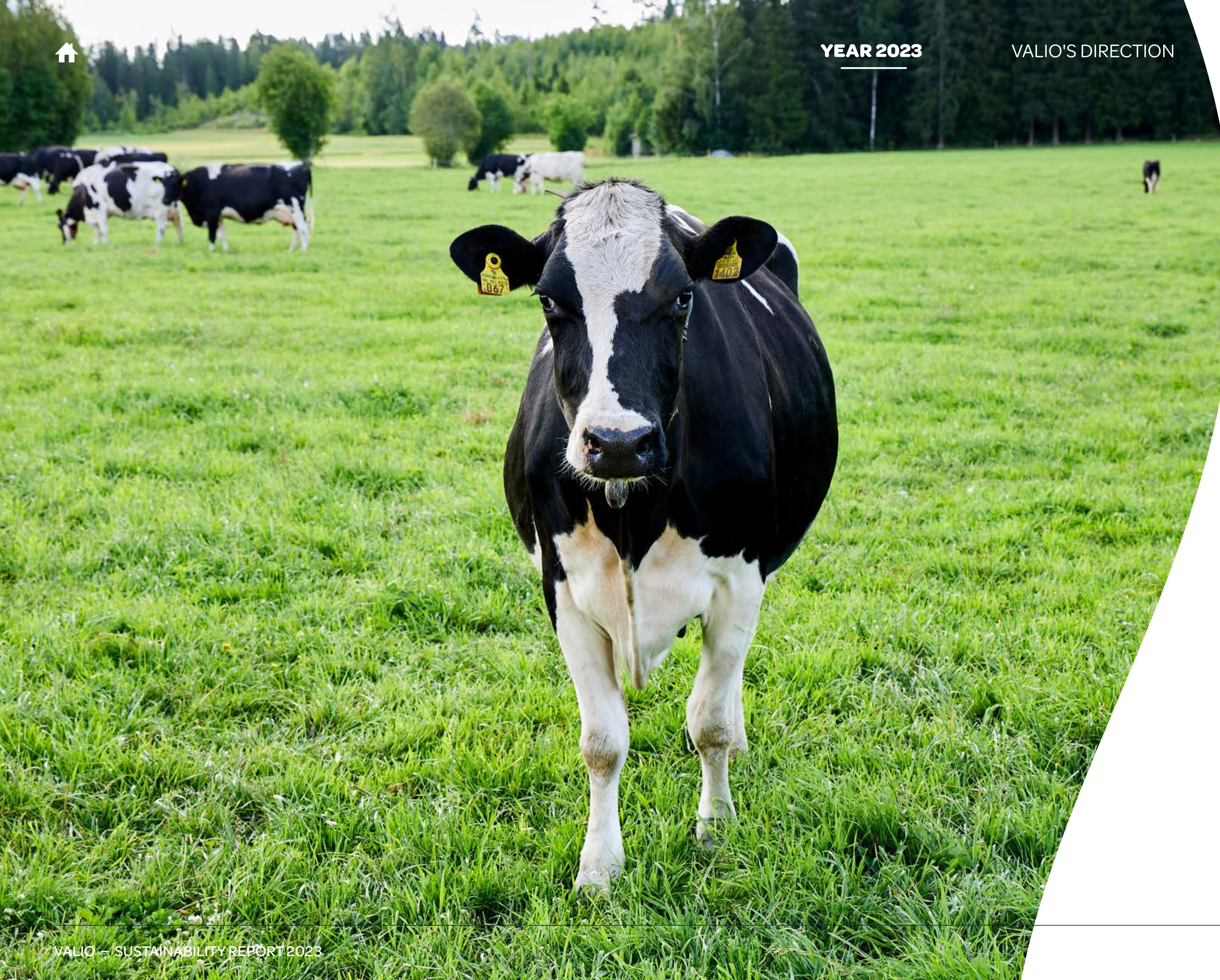
Dairy farmers belong to cooperatives, which own Valio.

## Valio is owned by Finnish dairy farms

**VALIO IS OWNED** by 3,400 dairy farmers through cooperatives. We pay our operating profits to the dairy farmers. Our products therefore directly support domestic sustainable food production and jobs.







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# Year 2023



# From the CEO

2023 was another year full of changes and challenges, both in the operating environment and in the food industry as a whole. The war in Ukraine and general economic uncertainty continued, while the global supply chain faced problems such as the availability of raw materials. High inflation and declining consumer purchasing power were reflected in Valio's business and performance. Despite these challenges, we've remained determined to implement our strategy and sustainability measures.

**VALIO GROUP'S** net sales in 2023 were EUR 2,278 million, up by 1.9 per cent on the previous year (EUR 2,236 million). Weakening consumer purchasing power and a sharp fall in global prices of butter and milk powder, as well as cost inflation, affected the result.

Valio is owned by some 3,400 Finnish dairy farms through cooperatives. Valio's main purpose is to pay the best possible return to the owners, i.e. the dairy farms, through the cooperatives. 2023 was also a challenging year for dairy farmers. High interest rates, high fertiliser prices and energy price uncertainty continue to pose challenges, although price increases eased during 2023. The crisis for producers is not yet over.

During the year, we moved our strategy forward as planned. In our home market in Finland, Sweden and Estonia we managed to defend our market position. We also continued the determined development of our business aimed at professional kitchens and industrial product business. Valio acquired Planti's production and thus expanded its position as a developer and manufacturer of plant-based products. Investments in value-added powders for export continued. Valio's exports account for about 25 per cent of Finland's total food

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

Food is a global growth business in the long term, despite the difficult market situation right now. The consumption of dairy products is growing in emerging markets, for instance in Asia, and the consumption of plant-based products is growing in the West.

Producing food responsibly and sustainably is more important now than ever. The world's population is growing and global demand for food will double by 2050. Climate change and biodiversity loss are forcing the reformation of our food system. We at Valio believe that the sustainable food system of the future will be a combination of different forms of food production, some of which already exist and some of which are still in the research stage. In order to have enough food in the future, we need plant-based food, sustainably produced milk and meat, and new innovations in cellular agriculture. We are involved in all of these.

Our goal is to cut the carbon footprint of milk to zero by 2035. We advanced our ambitious target in many ways. In 2023, some 2,400 farms were using Carbo<sup>®</sup> Farm to calculate the carbon footprint of their raw milk

and we have trained about 1,500 farms in carbon farming methods to reduce climate emissions.

Kiuruvesi was chosen as the location for the first biogas plant of Suomen Lantakaasu Oy, Valio and energy company St1's joint venture. The planned complex includes a total of four biogas plants that will use agricultural biomass in their production. The plants are expected to be operational in 2026.

We also significantly improved the energy efficiency of our production plants. The success is largely attributed to the heat pump system commissioned in 2023 at the Seinäjoki plant.

We applied for funding through the Business Finland for a five-year research and innovation programme. The goal of the Food 2.0 project is to create a Finnish nature-smart food system in which growth, profitability and added value are built on the basis of sustainable production. In February, Business Finland awarded the project EUR 10 million in funding. Our aim is that in the future byproducts from food production will be better recycled, for example into energy, fertilisers and various industrial raw materials. Food 2.0 is an example of how we want to develop Valio's business and the entire food



system towards a more sustainable and resource-smart direction.

Successes are created through shared efforts. I want to thank all Valio employees, dairy farms, our customers and our partners for the good collaboration!

**Annikka Hurme**  
CEO





# Sustainability highlights



## KIURUVESI SELECTED AS SITE FOR SUOMEN LANTAKAASU OY'S FIRST BIOGAS PLANT

The site was chosen based on factors such as infrastructure, the wishes of local residents and the amount of agricultural biomass available to the biogas plant in order to maximise the positive impact of the operation. The environmental impact assessment for the Kiuruvesi biogas plant was completed on schedule in summer 2023.

## NORTHERN EUROPE'S FIRST RECYCLED PLASTIC TETHERED CAP FOR BEVERAGE PACKAGING

We want to be pioneers in circularity. That's why we launched a new tethered cap made from 30% certified recycled plastic. The tethered cap reduces the amount of plastic waste that ends up in the environment, and the use of recycled plastic promotes the circular economy.



## PILOT PROJECTS TO DEVELOP MODELS FOR EMPLOYING FOREIGN LANGUAGE SPEAKERS IN PRODUCTION

In 2023, we launched two pilot projects in Finland to develop models for employing immigrants at Valio. In the Häme Vocational Institute SUJUVA project, we are working together to develop dairy sector education in foreign languages, and at the same time training eight workers with an immigrant background for production jobs. In partnership with Hyria, after a 10-week training and on-the-job training period, we employed six people with a Ukrainian background for warehouse jobs in Riihimäki.

## WE SIGNIFICANTLY IMPROVED ENERGY EFFICIENCY

This success is largely due to the Seinäjoki heat pump system completed in 2023. The system recovers heat from the refrigeration plant's condensing circuit and heat released during evaporator cooling. The heat is used for the plant's various heating needs.

## 86% OF VALIO DAIRY FARMS COMMITTED TO VOLUNTARY SUSTAINABILITY ACTIONS

Among the most popular actions were measures related to livestock grazing and outdoor exercise, the Carbo® Farm calculator, carbon farming methods, biodiversity and carbon farming training.



## ABSENCES DUE TO INJURIES WERE THE LOWEST IN RECORDED HISTORY

Absences due to injuries fell by almost half compared to the previous year. We are systematically implementing an action programme to prevent accidents and reach the target of zero work injuries.

## WE DEVELOPED INNOVATION LEADERSHIP AND STRENGTHENED THE INNOVATION CULTURE

We continued to develop innovation leadership and to strengthen the innovation culture by running a Spark Tank idea accelerator for all personnel in Finland. The Spark Tank received 70 ideas from 11 sites; after eight weeks of intensive work, 20 of the ideas were advanced for further development. Our corporate culture has been built around innovation throughout Valio's history.



## VALIO ACQUIRED PLANTI'S PRODUCTION AND THUS EXPANDED VALIO'S PLANT-BASED PRODUCT OFFERING

With the acquisition, Oddlygood became the market leader in plant-based spoonable snacks in Sweden and plant-based cooking products in Finland.





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# Valio's direction





# STRATEGY AND OPERATING ENVIRONMENT

In 2023, we continued executing our strategy with determination in a challenging operating environment.

## Our strategy

**OUR VISION** is to be a leading dairy and food company with loved brands and innovative solutions. At the same time, we are solving some of the major challenges of our time: we are building the future food system that produces food sustainably.

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 create innovative solutions and execute our strategy in their daily work.

The priority of our owner strategy is to ensure the livelihoods of dairy farmers in different parts of Finland. Our target is to pay a producer price that is at the level of the best cooperative dairies in Europe. The producer price is paid to dairy farmers through cooperatives. Valio's top management and different functions work together to execute the strategy and keep it up to date. Valio's Board of Directors approves the strategy.





### STRATEGY EXECUTION CONTINUED WITH DETERMINATION

In 2023, we made determined progress with our strategy in a challenging operating environment.

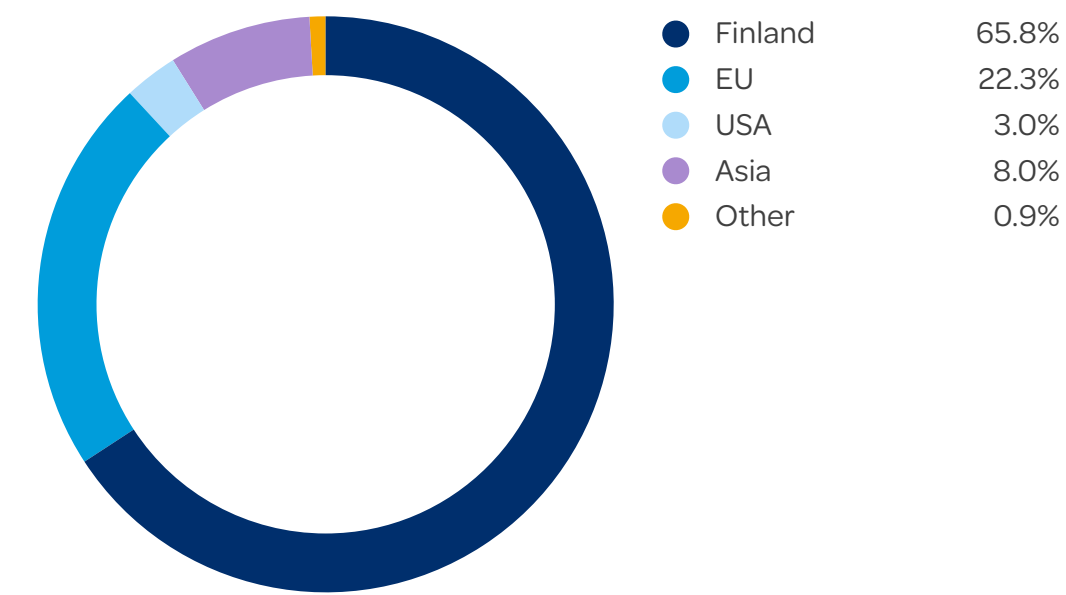
In our home markets in Finland, Sweden and Estonia, we successfully defended our position despite weakened consumer purchasing power. Valio's beloved brands and exciting novelties for example in the snacks and cooking categories offered taste sensations, variety, and delight to consumers. In early autumn, we launched the renewed Gold&Green® brand and novelties for plant-based cooking. During the year, we also clarified the strategy of our Valio Aimo® wholesale business and continued to develop operations. We aim to be the forerunner of Finland's foodservice market.

In export markets, we were challenged by falling world market prices for industrial products and the weak global economic situation, which was reflected in the demand for value-added ingredients and solutions. However, during the year, we continued to develop our capabilities in R&D, sales and manufacturing of value-added ingredients.

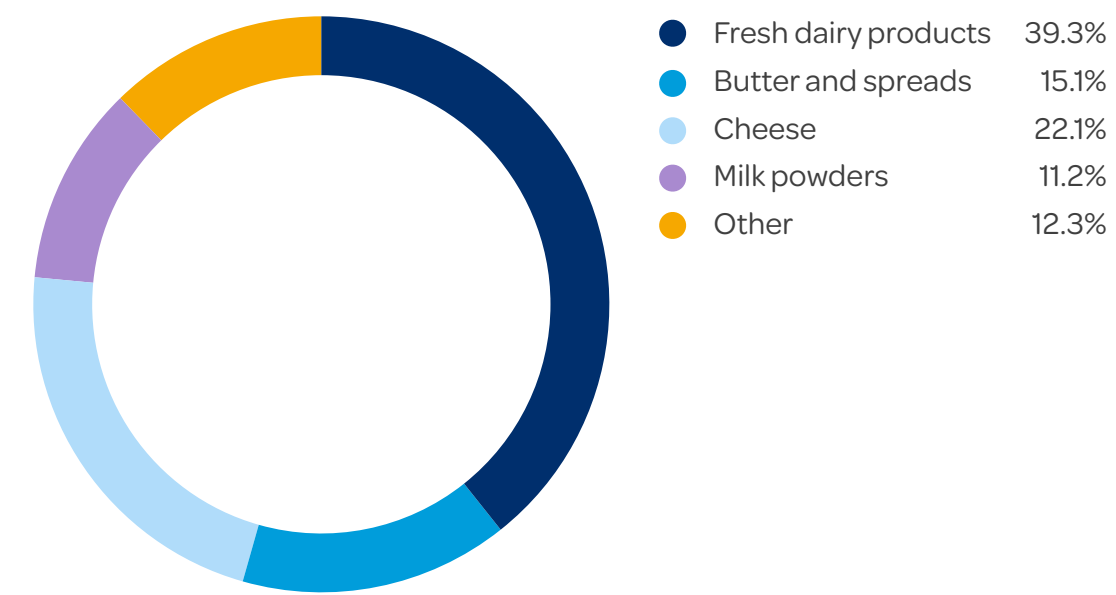
In October, we boosted the strong growth of plant-based products manufacturer Oddlygood with its acquisition of the Nordic brand Planti. The acquisition made Oddlygood the market leader in plant-based spoonable snacks in Sweden and in plant-based cooking products in Finland. Valio is the founder and majority owner of Oddlygood and Mandatum Asset Management is the other owner.

During the year, we also continued to develop the operations of Valio and energy company St1's joint venture Suomen Lantakaasu Oy in line with the planned schedule. The company's production target is 1 TWh of renewable transport fuel by 2030, which is equivalent to one quarter of Finland's biogas target.

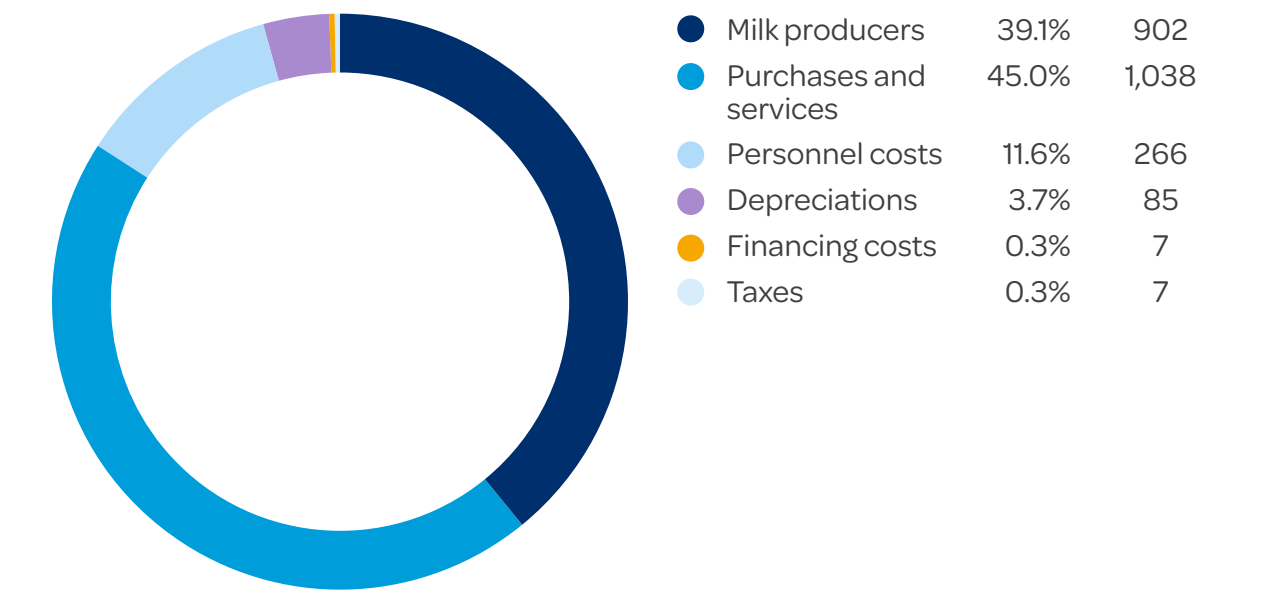
Valio group net sales by area, 2023



Valio group net sales by product group, 2023



Distribution of expenses in Valio group, 2023



## Valio's strategy



Read more about Valio's financial development in the [Board of Directors' Report](#).





## Our operating environment remained challenging

**VALIO IS AN INTERNATIONAL** food industry player. Our business is affected by the global operating environment and dairy market, as well as by domestic demand and competition. In 2023, the operating environment continued to be challenging for food sector operators. The war in Ukraine and general economic uncertainty continued, and there were problems in the global supply chain, including with the availability of raw materials.

Although the rise in dairy farm costs eased and prices for energy, feed and fertilisers even started to fall, costs were still around 30% higher at the end of 2023 than at the beginning of 2021. Dairy farm costs are forecasted to remain high also in the future. The situation on dairy farms will therefore remain tight.

The weakening in consumer purchasing power increased price sensitivity, and consumption shifted towards cheaper products. World market prices for industrial milk powders and butter started to fall sharply in autumn 2022 – after having reached a record high. After an exceptional period, industrial product prices returned to their five-year average level.

### WE FOLLOW CONSUMER TRENDS

Sustainability, health and wellbeing, and convenience are the biggest consumer trends that influence the demand for our products.

Sustainability as a consumer trend is fragmented. Alongside environmental responsibility, consumers increasingly expect companies to be ethically and socially responsible and to provide solutions to global

problems. The local nature of raw materials and production, water use, regenerative agriculture and the impact of global companies on local communities are important issues for consumers.

Economic uncertainty has undermined consumer confidence, which is clearly reflected also in food choices. Choices are being given more consideration and planning. A sizeable proportion of Finns consider responsibility in domestic food to be a hygiene factor and are not willing to pay a significantly higher price for it.

Digital solutions, such as Valio's recipe app, make daily life easier and smoother. The popularity of time-saving solutions for consumers, such as semi-prepared and especially prepared foods, continues to grow. Increasingly, a full meal is bought ready-made. Time-saving is driving the increase in home deliveries from shops and the popularity of pre-made shopping lists created by artificial intelligence.

Consumers' understanding of the role of food in promoting wellbeing has increased. The growing health trend has increased consumer interest in ingredients with proven health impacts, ingredients like good fats, carbohydrates, alternative sweeteners and probiotics. Interest in natural products is also growing.

Social media's role in creating food experiences continues to grow, and it is an increasingly important information source, especially for young people. Food choices are perceived as part of identity, and social media channels offer powerful means for expressing identity.





# SUSTAINABILITY AT VALIO

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 the challenges related to food production. Responsibility for the environment, the economy, people, animals and society is embedded in everything we do.

## What does sustainability mean to Valio?

**THE FOUNDATION** of Valio's sustainability is the cooperative approach. Our sustainability work is centred on three sustainability focus areas: regenerative agriculture and resource efficiency; responsibly produced, safe food; and a sustainable food system. Through these, we create jobs and wellbeing in Finland.

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

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. 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 are reducing emissions, growing carbon sinks and creating circular economy solutions. We are improving animal welfare, and we are working to secure biodiversity.



## Sustainability management

**RESPONSIBILITY** is one of Valio's four values that are at the heart of Valio's corporate strategy. 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.

Our daily global operations are guided by, e.g., sustainability-related policies, which are approved by Valio's Executive Board and communicated to personnel through various communication channels. They also define how we operate in line with Valio's values. All public policies are available on [Valio's website](#). → Our operations are certified in accordance with global food safety, quality and environmental standards. Our certificates can be downloaded from [our website](#). →

In the Group's Executive Board, sustainability is the purview of the Executive Vice President with responsibility for brand and marketing, sustainability, communications and public affairs. Sustainability topics are decided in decision forums in line with Valio's governance model. Strategic sustainability topics for the medium and long term are handled by Valio's Executive Board at the Sustainability Forum, held twice a year. Promoting sustainable business is included in Valio Group's strategic projects, which are reported to Valio's Executive Board every three months. Additionally, various info and status briefings are held for the Executive Board. In 2023, sustainability issues were regularly addressed with senior management also at Primary production sustainability meetings and in progress reviews of sustainability reporting.

In spring 2023, Valio's Board of Directors and Executive Board responded to a compliance self-assessment to assess their knowledge of Valio's policies and procedures related to the various sustainability and compliance topics. They also assessed how familiar the personnel are with the policies and guidelines, whether they implement them in the daily work, and whether they support our corporate culture. The assessment also looked at the sustainability targets set by Valio. The results show that Valio's current sustainability targets are considered by management to contribute well to Valio's competitiveness and that there is a high level of commitment to the various sustainability and compliance policies, both among management and personnel. The overall rating in the survey was 4.5 on a 5-point scale. In addition, Valio's Board of Directors assessed its own operations, their effectiveness, the implementation of Valio's strategy and the quality of decision-making material in a self-assessment carried out in autumn 2023. Here, too, the overall score was 4.5/5.

### **SUSTAINABILITY IS PART OF DAILY WORK**

Valio's management has delegated the daily management of sustainability to ESG teams. Operative ESG teams have been formed around the themes of environment, social sustainability and governance. The teams are composed of experts from different functions who lead and coordinate the advancement of the practical work in their respective areas and are responsible for the theme-related targets, actions and indicators.





## ESG management at Valio

VALIO BOARD OF DIRECTORS

VALIO EXECUTIVE BOARD

### ENVIRONMENTAL TEAM

- Climate
- Energy
- Logistics
- Water
- Circular economy
- Packaging
- Biodiversity
- Chemicals
- Waste and resource efficiency
- Permits

### SOCIAL SUSTAINABILITY TEAM

- Human and labour rights in Value chain
- Occupational health and wellbeing
- Safety
- DEI (diversity, equality, inclusion)
- Food safety
- Food Security
- Nutrition

### GOVERNANCE TEAM

- Ethics and compliance
- Corporate governance
- Code of Conducts
- Business Risks
- Internal control
- Accounting and taxes
- Data protection
- Data security

### ENVIRONMENTAL TEAM

Valio's environment team experts represent environment, climate, nature, energy, logistics and packaging development. The Senior Vice President of the Climate Programme chairs the environmental team. Team members report on their own topics to Valio's Executive Board through their own organisation.

### SOCIAL SUSTAINABILITY TEAM

Valio's social sustainability team experts work across the Valio organisation on occupational safety, work wellbeing, food safety, nutrition, procurement, communications, human rights and equality. The team is chaired by the sustainability manager. Team members report on their own topics to Valio's Executive Board through their own organisation.

### GOVERNANCE TEAM

Valio's governance team experts represent legal affairs, finances, governance development and the business operating environment, IT administration, and risk management. The head of legal affairs chairs the team. The team members report on their own topics to Valio's Executive Board through their own organisation.

The Senior Vice President, Sustainability is the facilitator of all the teams and, among other things, plans the topics to be reviewed in collaboration with the team chairs.













# Environmental and human rights impacts in Valio's value chain

VALIO'S VALUE CHAIN has many stages that impact the wellbeing of people, the environment and animals. Our sustainability work is based on topics we have identified in our value chain as being material to us.

The value chain's material environmental and human rights impacts are managed as part of the human rights

due diligence process and the environmental management system. They cover the principles and practices related to the topics and are monitored through, among other things, various audit processes and channels for raising concerns.

 <b>ENVIRONMENTAL IMPACTS</b>	<ul style="list-style-type: none"> <li>Water consumption and the load on water bodies</li> <li>Various emissions</li> <li>Loss of biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>Emissions and consumption of natural resources (suppliers and partners)</li> </ul>	<ul style="list-style-type: none"> <li>Methane production from cow rumen fermentation</li> <li>Nutrient leaching from manure</li> <li>Water consumption and the nutrient load on water bodies</li> <li>Environmental-shaping impact of milk production</li> <li>Greenhouse gas emissions from organic arable land</li> <li>Loss of biodiversity</li> </ul>	<ul style="list-style-type: none"> <li>Energy consumption</li> <li>Greenhouse gas emissions</li> </ul>	<ul style="list-style-type: none"> <li>Energy consumption</li> <li>Water consumption and wastewater emissions</li> <li>Dust and noise emissions at production sites</li> </ul>	<ul style="list-style-type: none"> <li>Indirect impact on the generation of food waste</li> <li>Impacts of used packages on waste management</li> </ul>
	<b>Primary production</b> 	<b>Direct sourcing</b> 	<b>Milk production</b> 	<b>Indirect sourcing</b> 	<b>Own operations</b> 	<b>Consumption</b> 
 <b>HUMAN RIGHTS IMPACTS</b>	<ul style="list-style-type: none"> <li>Child labour</li> <li>Forced labour</li> <li>Occupational health and safety</li> <li>Adequate income and wages</li> <li>Working conditions</li> <li>Gender equality</li> <li>Use and treatment of migrant workers</li> <li>Discrimination and harassment</li> </ul>	<ul style="list-style-type: none"> <li>Occupational health and safety</li> <li>Forced labour</li> <li>Working conditions</li> <li>Discrimination and harassment</li> <li>Use and treatment of migrant workers</li> </ul>	<ul style="list-style-type: none"> <li>Occupational health and safety</li> <li>Working conditions</li> <li>Use and treatment of migrant workers</li> <li>Resilience and wellbeing</li> <li>Gender equality</li> </ul>	<ul style="list-style-type: none"> <li>Occupational health and safety</li> <li>Forced labour</li> <li>Use and treatment of migrant workers</li> </ul>	<ul style="list-style-type: none"> <li>Occupational health and safety</li> <li>Discrimination and harassment</li> <li>Working conditions</li> <li>Gender equality</li> <li>Freedom of association</li> <li>Stress and mental well-being</li> </ul>	<ul style="list-style-type: none"> <li>Food safety</li> </ul>
	<p><b>In addition, there are risks concerning the whole value chain, which may also have severe human rights impacts:</b></p> <p>Company culture, addressing malpractice, corruption and bribery, supplier and distributor practices, political interaction, and value chain environmental impacts</p>					





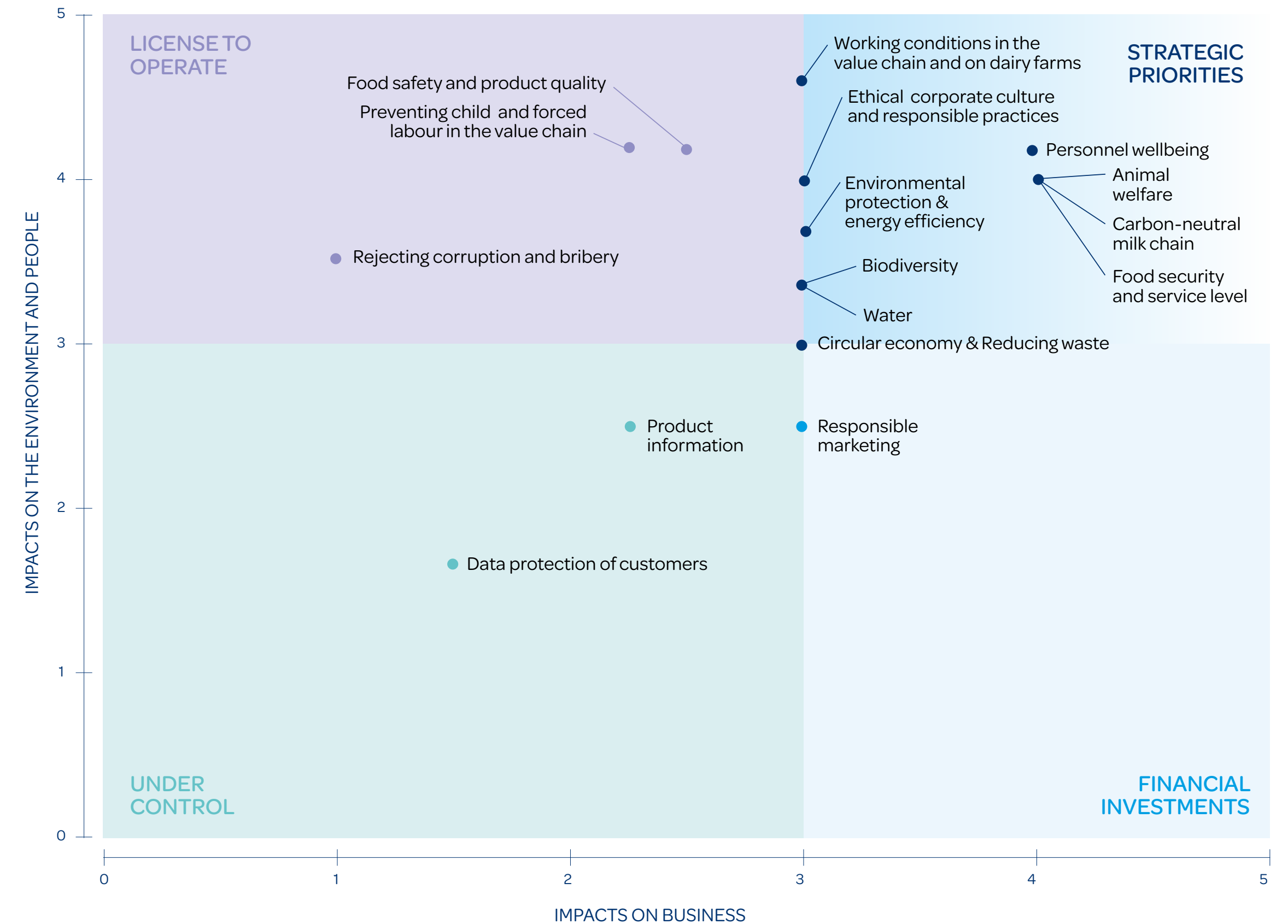


# Material sustainability topics

At the end of 2023, we carried out the materiality assessment in line with the guidance of the new European Sustainability Reporting Standards (ESRS) in the following stages.

1. Identification of the operating environment and stakeholders to be assessed	For the purpose of the assessment, the relevant stages and stakeholders of Valio's value chain were identified. The stages of Valio's value chain are described in the previous page.
2. Identification of the environmental and human rights impacts of Valio's value chain and sustainability-related business risks and opportunities	Identification of impacts, risks and opportunities (IROs) is based on existing human rights and environmental impacts, and risk and opportunity assessment data. New risks were identified by subject matter experts and in a joint workshop. The identified impacts, risks and opportunities were linked to the sustainability criteria defined in the ESRS 1 standard.
3. Assessment of the environmental and human rights impacts of Valio's value chain and the business risks and opportunities related to sustainability	<p>The severity of impacts was assessed on the basis of scale, scope and irremediable character of the impact. For potential environmental impacts, the likelihood of the impact was also taken into account.</p> <p>The significance of the risks and opportunities of the business was assessed on the basis of the magnitude and likelihood of their economic impact.</p> <p>Threshold values were defined for the severity of the impacts and the significance of the risks/opportunities, which define Valio's material impacts and at the same time describe the sustainability criteria to be reported in the future under ESRS standards.</p>
4. Stakeholder dialogue and review of results	<p>A stakeholder dialogue aimed to confirm whether the identified impacts, risks and opportunities are also the right ones from the stakeholders' perspective. The dialogue was conducted using existing materials, personal interviews and a stakeholder survey.</p> <ul style="list-style-type: none"> <li>The material gathered from the personnel surveys supported the view that the identified human rights impacts are material.</li> <li>A survey of dairy farmers, suppliers and NGO's representing Valio's value chain revealed that respondents agreed 82%-100% that we had identified material environmental and human rights impacts.</li> <li>The comments received in the interviews with ten people supported well the identified impacts, risks and opportunities. Valio Board of Directors members, customers, financiers, policymakers and union representatives were interviewed.</li> </ul>
5. Validation of results in materiality matrix	The identified material sustainability issues and the underlying threshold values were presented to Valio's Executive Board for validation. Based on the material sustainability criteria, a new materiality matrix was created, which presents the material sustainability topics for Valio, assessed from a perspective of impacts and financial risks and opportunities. The materiality matrix was approved by Valio's Executive Board at the beginning of 2024. Based on the matrix, Valio's sustainability focus areas and targets will be refined or updated during 2024.

# Materiality matrix





## Focus areas of sustainable business

The focus areas of sustainable business are based on our business strategy, owner strategy and the materiality assessment

(the environmental and human rights impacts of Valio's value chain as well as business opportunities and risks related to sustainability have been identified in the double materiality assessment)



### REGENERATIVE AGRICULTURE AND RESOURCE EFFICIENCY

- Carbon-neutral milk chain 2035
- Animal welfare and biodiversity on dairy farms
- Climate-smart packaging and resource efficiency in production



### RESPONSIBLY PRODUCED SAFE FOOD

- Responsible supply chain and vitality of dairy farms
- Products promoting health and wellbeing
- Safe workplace with a good feeling



### SUSTAINABLE FOOD SYSTEM

- Value creation for Finnish raw materials and work
- Food security and service level
- Innovative circular economy solutions

**VALIO'S VISION:** Leading dairy and food company with loved brands and innovative solutions

**VALUES:** Consumer and customer focus, responsibility, renewal and collaboration

The focus areas of Valio's sustainable business are based on the corporate and owner strategy and the materiality assessment, and they define the issues on which our sustainability work and targets are focused. The focus areas are also linked to the UN Sustainable Development Goals. The Vice President, Sustainability, coordinates and prepares the Valio Group's sustainable business focus areas, which are approved by Valio's Executive Board.








Valio's country companies use the Group's materiality matrix and focus areas as a basis for their own sustainability programmes. During 2023, Valio's USA, Sweden and Estonia subsidiaries identified their own material sustainability impacts and sustainability topics that pose significant risks or create sustainability opportunities for their operations. Based on the topics identified, the subsidiaries developed sustainability programmes focused on their own operations. The companies will continue to advance their programmes during 2024. In 2023, we also started to build Valio Aimo® wholesale business's own sustainability programme based on Valio's focus areas.















## Sustainability targets

We have set targets for each focus area and we monitor the progress.

FOCUS AREA AND TOPIC-RELATED VALIO POLICY	TOP-LEVEL TARGET/ LINK TO SDG	2023 TARGETS/ACTIONS	KPI RESULT 2023 (GLOBAL/FINLAND)	PROGRESS IN 2023	STATUS
<b>Regenerative agriculture and resource efficiency</b> <ul style="list-style-type: none"> <li>Environmental Policy</li> <li>Valio Supplier and Distributor Code of Conduct</li> </ul>	<b>Carbon-neutral milk chain by 2035</b> 	<b>2025</b> All active Valio dairy farms measure the carbon footprint of their milk using the Valio Carbo® Farm calculator. The indicator is the milk volume covered by the calculation.	78% of milk volume (2022: 73% of milk volume)	We are on track to meet the target schedule. In 2023, we increased the milk volume within the scope of calculation by 5%.	ON TRACK 
		<b>2025</b> Train all active Valio dairy farms to be carbon farmers.	1,500 farms, i.e. 45% of farms (2022: 1,000 farms/ca. 25% of farms)	We are on track to meet the target schedule. In 2023, 500 farms received carbon farming training.	ON TRACK 
		<b>2030</b> Carbon farming methods are used in all feed production fields at Valio farms by 2030. This target applies to mineral soil.	2023: 128,000 ha, 44% (2022: 86,000 ha, 30%)	We are on track to meet the target schedule. In 2023, 44% of Valio arable land of mineral soil was within the sphere of carbon farming.	ON TRACK 
		Measure greenhouse gas emissions from organic arable land on Valio farms and pilot emission reduction measures based on the latest scientific data.	6 farms are measuring emissions 12 farms are piloting emission reduction measures (2022: 6 farms/11 farms)	We are on track. We continued existing measuring, and we received additional funding for one new farm. We actively participated in peatland studies in 2023.	ON TRACK 
		<b>2030 Valio's Science Based Targets</b> Reduce Valio dairy farm climate impacts by 50%. This target applies to the average carbon footprint of raw milk.	Achievement of target 9% (emission reduction 5%) (2022: achievement of target 9%, emission reduction 5%)	The average carbon footprint of raw milk decreased by 5% in 2019-2022. The 2023 carbon footprint calculation will take place at dairy farms in 2024. Total emissions from milk production decreased by 11% in 2019-2023. It should be noted that not all raw milk is included in the calculation, and the Valio Carbo® Farm calculator does not yet take into account all the climate actions taken by farms.	ON TRACK 
		<b>2030 Valio's Science Based Targets</b> Reduce Valio production plants' greenhouse gas emissions from electricity and heat energy (scope 1 and 2) by 47%.	Achievement of target 23% (emission reduction 11%) (2022: achievement of target 66%, emission reduction 31%)	We are on track to reduce emissions in line with the overall target. During 2023, we increasingly shifted to renewable energy sources and improved energy efficiency. Our thermal energy emissions fell by around 50% in 2019-2023. There was little change in our electricity procurement, no increase in consumption or in the share of non-renewable energy. Despite this, electricity emissions increased significantly due to the market-based electricity calculation method. <a href="#">Read more: Our climate impacts in 2023 and Achievements in Valio's Science Based Targets (SBT).</a>	ON TRACK 













FOCUS AREA AND TOPIC-RELATED VALIO POLICY	TOP-LEVEL TARGET/ LINK TO SDG	2023 TARGETS/ACTIONS	KPI RESULT 2023 (GLOBAL/FINLAND)	PROGRESS IN 2023	STATUS
<b>Environmentally smart packaging and resource efficiency in production</b> 		<b>2023</b> 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.	5%	We piloted recycling opportunities for agricultural plastics together with the Finnish recycling company L&T. The recycling pilot was completed in 2023. The pilot was carried out at eight Valio dairy farms, and the results will be used in the future to plan the recycling of agricultural plastics. Valio cooperatives took part in Suomen Maatalousmuovien Kierrätys Oy's recycling activities.	ON TRACK 
		<b>2025</b> In line with the Finnish food industry's Energy Efficiency Agreement, improve Valio's operational efficiency by 7.5% by 2025 (compared to 2015).	13% (2022: 10.2%)	By the end of 2023, the total impact of the energy efficiency measures is about 13%, i.e. a total annual energy savings of 92.7 GWh.	ON TRACK 
		<b>2030</b> We have set challenging long-term targets for single-use packaging made and sold by Valio in Finland: <ol style="list-style-type: none"> <li>Protects the product (safety, quality, no waste). We track consumer feedback related to packaging.</li> <li>Packaging materials suitable as raw materials for reuse. Our target is 100% circular economy-ready packaging.</li> <li>100% renewable or recycled packaging materials.</li> </ol>	1. Microbiological feedback/1 million products sold: 3.0 (2022: 2.1 ppm) 2. 87% (2022: 88%) 3. 72% (2022: 73%).	1. We will continue working towards our ambitious target. 2. We are on track to meet our target. 3. At the previous year's level. In 2023, consumers purchased fewer and cheaper products. Due to the resulting changes in customer product choices, the target setting outcomes remained at the 2022 level.	AT LAST YEAR'S LEVEL  PROGRESSING  AT LAST YEAR'S LEVEL 
<b>Animal welfare and nature work at dairy farms</b> 		We aim to set Science Based Targets for Nature (SBTN).	50%	In 2023, we extended our nature impact mapping to our entire value chain and identified the nature pressures and habitat values of our activities. We also identified possible measurement methods to which the nature targets could be linked.	PROGRESSING 
		The target is to develop ISO 9001-certified Naseva into a scientifically valid and comprehensive animal welfare assessment and advancement tool by the end of 2025. Natural Resources Institute Finland, Valio Ltd, Atria, HKScan, Snellman and Animal Health ETT are involved in the project.	30% of the project is ready.	In 2023, work packages 1 and 2: WP1: Refinement of the indicators to be tested in the project, as well as further definition of sample size calculations and practical testing of the indicators at dairy farms. WP2: Started building a theoretical model of overall wellbeing.	PROGRESSING 
		90% are committed to voluntary sustainability actions.	86% of Valio farms committed to the voluntary sustainability work.	Primary production's sustainability programme was updated in 2023. The update introduced new voluntary actions in addition to the previous actions that applied to everyone; a sustainability bonus of up to 1 cent/milk litre will be paid for the voluntary actions. 86% of Valio dairy farms committed to the voluntary sustainability work.	PROGRESSING 

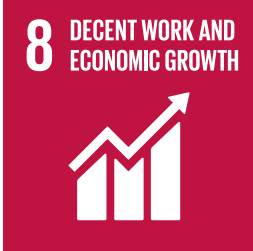









FOCUS AREA AND TOPIC-RELATED VALIO POLICY	TOP-LEVEL TARGET/ LINK TO SDG	2023 TARGETS/ACTIONS	KPI RESULT 2023 (GLOBAL/FINLAND)	PROGRESS IN 2023	STATUS
<b>Responsibly produced, safe food</b> <ul style="list-style-type: none"> <li>Food Safety and Quality Policy</li> <li>Valio Code of Conduct</li> <li>Health and Safety Policy</li> <li>Valio Supplier and Distributor Code of Conduct</li> </ul>	<b>Products promoting health and wellbeing</b> 	0 public and customer recalls.	Recalls made globally: 6 (2022: 11). (Does not include the Valio Aimo procurement portfolio)	The number of recalls dropped sharply from the previous year. One recall was publicly reported due to a microbiological quality deviation. Other recalls were made from our customers, for example due to incorrect packaging.	PROGRESSING 
		In Finland: Growth in Heart Symbol products in domestic portfolio (no.)	138 (2022: 130)	We developed 17 new Heart Symbol products in 2023.	PROGRESSING 
		Realisation of nutrition commitments (%)	100%	The 2023 nutrition commitments were achieved. <a href="#">Read more about the commitments here.</a>	COMPLETED 
		Maintaining Valio Akatemia® activities (stipends/ EUR, nutrition stipends/no.)	EUR 132,000 / 40 no. (2022: 132,000 / 40 no.)	We granted EUR 132,000 in support through the Valio Akatemia® programme. Of this, there were 40 nutrition stipends.	PROGRESSING 
	<b>Safe, mental health-friendly workplace</b>  	Reduction in sickness absences (%).	4% (2022: 4.9%)	Noteworthy in the reduction of sickness absences is the decrease in the number of absences due to mental health problems. The resources invested in mental wellbeing measures have yielded good results.	PROGRESSING 
		Improvement in Valio Voice employee survey results.	8.1 (2022: 8.0)	The engagement result improved slightly from 2022. The result average in 2023 was 8.1 (2022: 8.0). In the peer group, the result is among the top 5% in the food and beverage industry. From 2024 onwards, we will track the employee Net Promoter Score (eNPS) instead of the result average.	PROGRESSING 
		0 injuries/Injury frequency ≤5	Lost time incident frequency (LTIF) 9.2 per million hours worked. (2022: LTIF 8.6 per million hours worked)	The number of injuries increased by a few compared to the previous year, but the number of absences due to injuries in Finland fell by about 40%.	AT LAST YEAR'S LEVEL 
	<b>Responsible supply chains and dairy farmer wellbeing</b>	0 human rights violations.	Human rights violations 0 pcs., 1 suspicion in the supply chain – <a href="#">read more here.</a>	No violations identified in our own operations. The criminal investigation into suspected human trafficking linked to the harvesting of wild berries, which emerged towards the end of 2022, continued and expanded during 2023.	PROGRESSING 





FOCUS AREA AND TOPIC-RELATED VALIO POLICY	TOP-LEVEL TARGET/ LINK TO SDG	2023 TARGETS/ACTIONS	KPI RESULT 2023 (GLOBAL/FINLAND)	PROGRESS IN 2023	STATUS
<b>Sustainable food system</b> <ul style="list-style-type: none"> <li>Valio Code of Conduct</li> <li>Valio Supplier and Distributor Code of Conduct</li> <li>Communication Policy</li> <li>Marketing Policy</li> <li>Data Protection Policy</li> <li>Sourcing and Contract Manufacturing Policy</li> </ul>	<b>Creating value for Finnish raw materials and labour</b> 	Increasing the milk return.	51.6 cents per litre (52.5 cents per litre)	The milk return stood at 51.6 cents per litre (52.5 c/l). Weakening consumer purchasing power, and the drastic decline in the global market prices of butter and milk powder together with cost inflation, resulted in a fall in the milk return, which is used to measure profitability. The average price paid for raw milk to dairy co-operatives was 53.7 cents per litre (2022: 52.1 c/l). Although the average price paid for raw milk by Valio to dairy co-operatives in 2023 was higher (53.7 c/l) than the 2022 average (52.1 c/l), the price level was considerably lower at the end of the year compared to the beginning.	NEARLY ACHIEVED 
	<b>Food security and security of supply</b> 	Our delivery reliability is over 99.3%.	Delivery reliability was 98.3% in Finland. (2022: 98.7%).	Despite a challenging year, we managed to maintain a high level of delivery reliability, although we fell slightly short of our target.	NEARLY ACHIEVED 
	<b>Innovative circular economy solutions</b> 	Processing manure in a biogas plant to produce renewable energy and to achieve emission reductions in agriculture and energy consumption. The target is to process 2 million tonnes of manure per year by 2035.	About 5% of the target achieved.	Suomen Lantakaasu Oy's target to build a manure-based biogas plant using manure from multiple farms progressed. Today, a number of Valio dairy farms are processing their manure in biogas plants. <a href="#">Read more here.</a>	ON TRACK 





## Rating systems relevant to Valio

### Sustainable Brand Index™

Europe's largest sustainability-focused brand study is conducted by surveying consumer perceptions of the sustainability of brands.

#### FINLAND'S MOST SUSTAINABLE BRAND

Consumers considered Valio as Finland's most sustainable brand in the 2023 Sustainable Brand Index™ study. In the study conducted in the beginning of 2024, Valio was in 2. place.



### Reputation & Trust Survey

In T-Media's Reputation&Trust survey, consumers name the most reputable Finnish companies.

#### VALIO'S REPUTATION AT A GOOD LEVEL

In the 2023 survey, Valio climbed to Finland's third most reputable company, and our score was 3.77 (2022: 3.77).



### CDP

The international CDP system collects environmental data and assesses a company's environmental performance.

#### VERIFYABLY STRONG CLIMATE WORK

In 2023, Valio received a score of B (programme content and effectiveness), and B (stakeholder work), on a scale of A-F.



### EcoVadis

EcoVadis assesses company sustainability aspects on the basis of documented material.


#### TOWARDS THE TOP

Valio improved its result in the 2022 assessment and achieved a silver medal.

The next assessment will take place in summer 2024.







# RESPONSIBLE CUSTOMER AND STAKEHOLDER COLLABORATION

Valio's key stakeholders are dairy farmers (Valio's owners), personnel, customers, consumers, goods and services providers, as well as societal decision-makers and influencers. We interact with local, national and international stakeholders. Identifying and taking into account the different expectations of our stakeholders are the cornerstones of our work.

## Broad and active dialogue

**WE WANT TO PROMOTE TRANSPARENCY** in our operations, and we engage in a broad dialogue with various stakeholders through in-person meetings and events, Valio's online service and social media channels, consumer service, customer and owner magazines, and newsletters. Additionally, we participate in various research and cooperation projects with universities, research institutes, associations and other companies.





## We are a valued partner for customers

**OUR CUSTOMERS** include grocery store chains, restaurants, service stations, the food industry, food service providers and bakeries. Valio serves professional kitchens and the food industry in Finland and around the world.

Being a reliable partner for our customers is important to us. Our customers gave us excellent ratings in surveys:

- **Grocery store business:** In 2023, we were number two in Factum's Grocery Central Buying survey in our peer group of ten suppliers. Our customers value our delivery reliability, trustworthiness, expertise and sustainability.
- **Professional kitchens and food industry:** Valio Aimo® wholesale customers are especially satisfied with the quality of the wholesale products, the good price/quality ratio and the domestic origin of the products. Valio's wholesale business is seen as a professional, trustworthy, fair and desirable partner. This correlates with the general trend in which customers value versatile and seamless channels of service and effective collaboration to ensure their own business success. In December 2023, the wholesale customers' satisfaction with the collaboration overall was 61 on an NPS scale of -100–100. Overall perception of Valio Aimo® wholesale among customers is an average of 4.23/5, i.e. the best among all Finnish

wholesalers, and its NPS rating is also the highest among Finnish wholesalers.

- **International Food Solutions sales for industrial kitchens:** Our customers value the smooth cooperation as well as Valio employees' commitment to solving problems and the ability to understand the customer's business. Valio was also praised for its proactivity in presenting new solutions and services. Valio Food Solutions' NPS rating in the 2023 customer satisfaction survey was 44.

### WE OFFER CUSTOMERS INFORMATION ON SUPPLY CHAIN RESPONSIBILITY

We aim to support our customers in ensuring a responsible supply chain. Our team specialising in the information needs of business customers provides customers with information about Valio's products and operations. In addition to information needs, the team coordinates customers' auditing and traceability exercise requests, among other things.

In 2023, the team handled a total of about 800 information requests. In addition to information requests, we engage in regular cooperation with several of our customers to advance sustainability issues by discussing and sharing information with each other.



## Millions of encounters with consumers every year

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 in social media.

In a continuous quality survey, Valio's consumer service was rated 9/10 in 2023. Respondents appreciated the speed, friendliness and expertise of the service. During the year we responded to more than 20,000 consumer contacts. They were almost evenly split among product remarks and questions, wishes and ideas. Consumers were especially interested in product-related matters.





## We work with national and international decision-makers

**WE ACTIVELY PARTICIPATE** in the social debate on issues related to, e.g., food policy, the food industry and agriculture. We engage in an open dialogue with policy-makers and decision-makers on issues related to Valio's operating environment and the food sector more broadly both in Finland and at the EU level. Valio participates in advocacy work related to business, the food industry and the dairy sector through national, European and international organisations. Our aim is to ensure that decision-makers are well informed about our industry-specific aspects and have the necessary facts to support their decision-making. [Read more about advocacy work on our website.](#) →

**Through our membership in FIBS Pro, the largest corporate responsibility network in the Nordics, we promote sustainability expertise and collaboration.**



## 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 EUR 1.5 million have been awarded to 3,190 recipients. In 2023, we awarded 300 recipients with stipends totalling about EUR 132,000.

- 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, nutritional lectures or cooking classes for individuals or teams. In 2023, there were 40 nutritional stipends awarded.





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 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>	Supplier relationship Long-term and fair partnership Development and renewal Valuing sustainability work	Sourcing Policy and principles Fair contract terms Level playing field for competition Stakeholder cooperation Procurement category management	Procurement processes and policies Supplier management procedures Meetings, collaboration projects and dialogue Sustainability and food safety surveys and audits Internal advocacy
<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) Occupational health and safety policy Remuneration principles 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) Sustainability reporting	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 Climate programme SBTi targets Packaging commitments Biodiversity roadmap	Continuous interaction and meetings Customer feedback and 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 and 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 Valio Supplier and Distributor Code of Conduct Human rights assessments and audits	Meetings Sustainability assessments and audits Sustainability reporting
<b>Trade associations</b>	Economic conditions Domestic production Development of the operating environment Animal welfare Carbon-neutral milk chain	Advocacy and cooperation processes	Meetings and active participation Memberships
<b>Societal decision-makers</b>	Nutrition information Food security Employment through local production Security of supply and food sufficiency	Nutrition commitments Delivery reliability Contributing to the social debate Dialogue and exchange of information	Information and meetings Public affairs newsletter Regional meetings
<b>Media</b>	Social influence and solutions Perspectives on the industry and the future Open interaction	Consistent, regular and honest communication Expert availability	Releases, media events and interviews Mediadesk service for journalists
<b>Authorities</b>	Food safety Nutrition Animal diseases Environmental impacts Marketing practices	Compliance with permits and anticipation	Meetings Permit processes Oversight
<b>Research facilities, universities and scientific community</b>	Nutrition information Environmental impacts of food products Information sharing Internships 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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**VITALITY OF DAIRY FARMS AND ANIMAL WELFARE** [53](#)  
**RESPONSIBLY PRODUCED, HEALTHY PRODUCTS** [59](#)  
**PEOPLE'S WELLBEING** [67](#)  
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# Focus areas





# CLIMATE, NATURE AND ENVIRONMENT

We are aware of Valio's environmental impacts, and we are working to decrease our environmental footprint. We also aim to have positive impacts through our operations – a positive handprint. Key themes of our environmental work include reducing climate emissions, strengthening biodiversity, and resource wisdom and circularity in food production, packaging and logistics.

## Valio's Climate Programme – aiming for carbon- neutral milk

**THROUGH OUR CLIMATE PROGRAMME,** we are aiming for a carbon-neutral milk chain by 2035. This means reducing and sequestering at least as much greenhouse gas emissions from the atmosphere as are generated on dairy farms, during transports, at production plants, in the manufacturing of packaging, and elsewhere in milk's value chain.

Emissions reductions in primary production, at production plants and in logistics are reflected as a reduction of the carbon footprint of all Valio products. Our work focuses on reducing emissions and strengthening the carbon sinks within the value chain – not on offsetting emissions.

In Valio's Climate Programme, the calculation of emissions and carbon sinks is based on the latest scientific knowledge and innovations. It allows us to monitor emissions and the progress of the Climate Programme across our value chain, from dairy farms to consumers. We want the cattle sector to adopt national calculation principles and a common farm tool for measuring environmental impacts.

Our climate target is ambitious, but it is reachable through research and collaboration. Valio engages in collaboration with dairy farms, multiple agricultural and energy sector companies, and research institutes. Our partners include the Finnish Meteorological Institute, VTT Technical Research Centre of Finland, Natural Resources Institute Finland, University of Helsinki, University of Eastern Finland, Häme University of Applied Sciences, Yara and Atria Tuottajat.

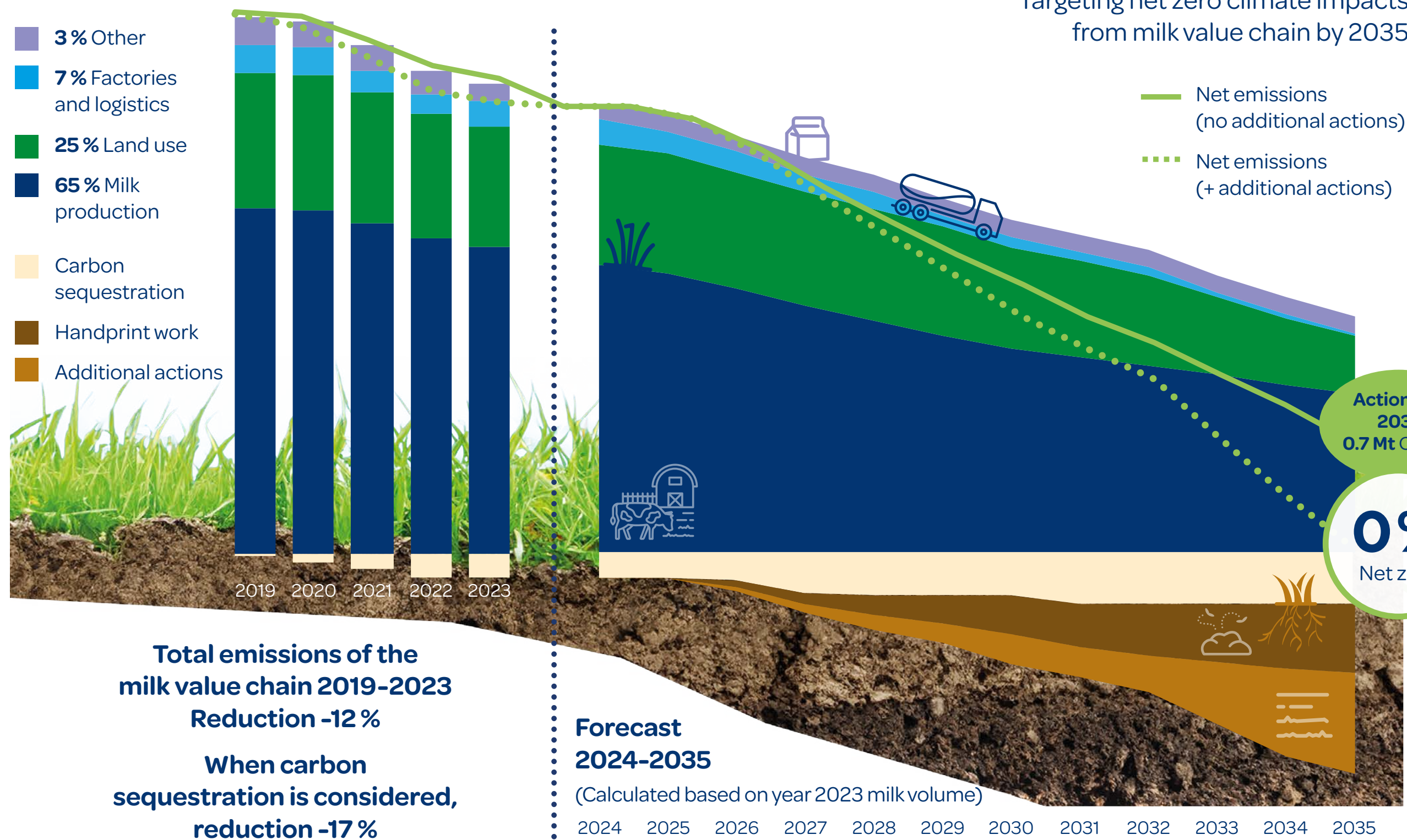


# Valio's Climate Programme

## Valio's climate impacts

3 Mt CO<sub>2</sub>e/y (2019)

- 3% Other
- 7% Factories and logistics
- 25% Land use
- 65% Milk production
- Carbon sequestration
- Handprint work
- Additional actions



### Share of Climate Programme actions

- 0,4% Packaging materials and other raw materials
- 7% Valio's renewable energy and energy efficiency
- 13% Peatland emissions reductions
- 31% Climate actions at farms
  - Animal welfare, feed and breeding
  - Methane decomposition from barn air
  - Renewable energy and energy efficiency
  - Nutrient efficiency and circular economy (manure)
- 12% Carbon farming in fields and carbon sequestration technologies
- 15% Handprint work e.g. restoration and biogas in transport
- 22% Need for additional actions e.g. new technologies

## WE PLANNED A MAJOR RESEARCH PROJECT AND A NEW CUSTOMER PROGRAMME

In 2023, we planned a five-year research and innovation programme and applied for funding for it through the Business Finland challenge competition. The goal of the Food 2.0 project is to create a Finnish nature-smart food system in which growth, profitability and added value are built on the basis of sustainable production. In February 2024, Business Finland awarded EUR 10 million in funding for Valio's Food 2.0 project. It is preparing to provide an additional EUR 20 million to fund projects within the Valio network of partners.

Hundreds of companies and other operators are connected to the food system in Finland, and the goal is to have at least one hundred partners in the network. Valio and the partner network are aiming for additional investments of EUR 100 million in research and development in Finland over five years.

The Food 2.0 project themes are future products, technology transformation, regenerative production, and circular economy and resource efficiency, the latter of which, in particular, support our Climate Programme targets.

In addition, we are involved in 28 projects that are studying the climate impacts of agriculture and emissions reduction schemes at a detailed level.

To support our Climate Programme, in 2023 we also designed a partnership programme, which we will pilot in 2024-2025. The aim of the programme is to reduce the climate impacts of Valio's value chains in collaboration with our customers.

Valio's climate program aims for net zero in 2035. In the 2019-2023 emissions, carbon sequestration in arable land has been estimated based on preliminary research results. The aim is to narrow the ambition gap by finding new emission reduction actions and making existing ones more effective.



# The carbon footprint of milk from field to table



**98 %**

## PRIMARY PRODUCTION AT FARM

- 35 % Feeding
- 5 % Grazing
- 1 % Manure storage
- 13 % Feed cultivation
- 32 % Peat field emissions
- 3 % Energy use at the farm
- 6 % Purchased feed use
- 3 % Other external inputs

**2 %**

## LOGISTICS AND FACTORIES

- 0,2 % Logistics
- 1,8 % Energy use at factories and packaging

About 98 percent of the carbon footprint of a liter of skim milk is from primary production on farms. One third of this is methane (CH<sub>4</sub>) from cows' digestion and half nitrogen oxide (N<sub>2</sub>O) and carbon dioxide (CO<sub>2</sub>) emissions related to cultivation. The rest of primary production emissions are related to energy use (3%), production of external inputs such as fertilizers (9%), outdoor activities (6%) and manure storage (approx. 1%). The logistics and factory operations related to the manufacture of the products produce approximately 2% of the finished product's carbon footprint. The farm-level carbon footprint calculation of milk is constantly developing, and the coverage of the calculation is improving. Currently, already 80% of the milk received by Valio is included in the farm level calculation.

### FOUR PATHWAYS TO OUR 2035 TARGET

We are moving towards a carbon-neutral milk chain primarily along four pathways:

1. We are sequestering more atmospheric carbon into grass fields.
2. We are using manure to produce biogas, which is a replacement for fossil fuels in heavy transports.
3. We are reducing emissions from agricultural peatlands and developing suitable restoration methods for some peatlands.
4. We are continuing good work on animal welfare, feeding and breeding.

Additionally, we are exploring new emission reduction and carbon removal technologies and implementing them when possible.

The climate impacts in our production are being reduced through:

- energy-efficiency improvements at plants
- increased share of renewable energy
- optimised transport routes
- eco-friendly packaging
- reduced waste in production, at the grocery store and in the consumer's home

[Read more about the Climate Programme on our website. →](#)

We report on the Climate Programme's content, progress, management and stakeholder cooperation in the international CDP system. In 2023, Valio received a score of B (programme content and effectiveness) and B (stakeholder work), on a scale of A-F.





**OUR CLIMATE IMPACTS IN 2023**

Greenhouse gas emissions from our operations in Finland in 2023 were about 2,16 million carbon dioxide equivalent tonnes (Mt CO<sub>2</sub>e). Of the total emissions, the raw milk received accounted for 80 per cent, energy use at production plants 7 per cent, and logistics 2 per cent. The rest of the emissions were related to the other raw materials used in the production of Valio's products, packaging, wholesale products, waste processing, energy in primary production, personnel travel, and product storage and handling at the grocery store and in consumer homes.

Of the Valio Baltics climate impacts, we currently report emissions from the production plants and milk collection logistics. Valio's subsidiaries in Sweden and China only sell products made in Finland, so the

majority of their emissions are already included in Valio's emissions calculations. Valio USA sells Valio products manufactured in both Finland and Estonia, and some products are also manufactured locally. The climate impact of contract production in 2023 is estimated to be about 49,000 tonnes of carbon dioxide equivalent (t CO<sub>2</sub>e), which is 2,5 per cent of Valio's total emissions in Finland. We are developing the emissions calculation of all subsidiaries towards Group-level emissions reporting.

Total emissions from Valio's Finnish operations in 2023 decreased by about 8 per cent compared to 2022. Emissions (scope 1) from heating production and refrigerant use at our production plants decreased by 11 per cent. The emissions reductions are driven by the increasing transition to renewable heat sources as well as energy-efficiency actions and investments.

Emissions from district heating and electricity use increased by 71 per cent over the same period. The increase is due to the way emissions from electricity use are calculated. The market-based reporting method we use requires the use of a residual mix emission factor, which reflects the production forms of energy not sold as guarantee of origin in the electricity used in Finland. The currently available 2022 emission factor increased significantly from the previous year, as an increasing share of renewable electricity is sold as guarantee of origin and, due to this and the energy crisis, more fossil fuels and peat ended up in the residual mix.

In accordance with the international GHG Protocol, emissions from electricity use are also reported on a location-based basis, in which case the emission factor generally describes the production forms of electricity generated in Finland. Emissions from Valio's electricity use decreased by 9 per cent between 2022 and 2023,

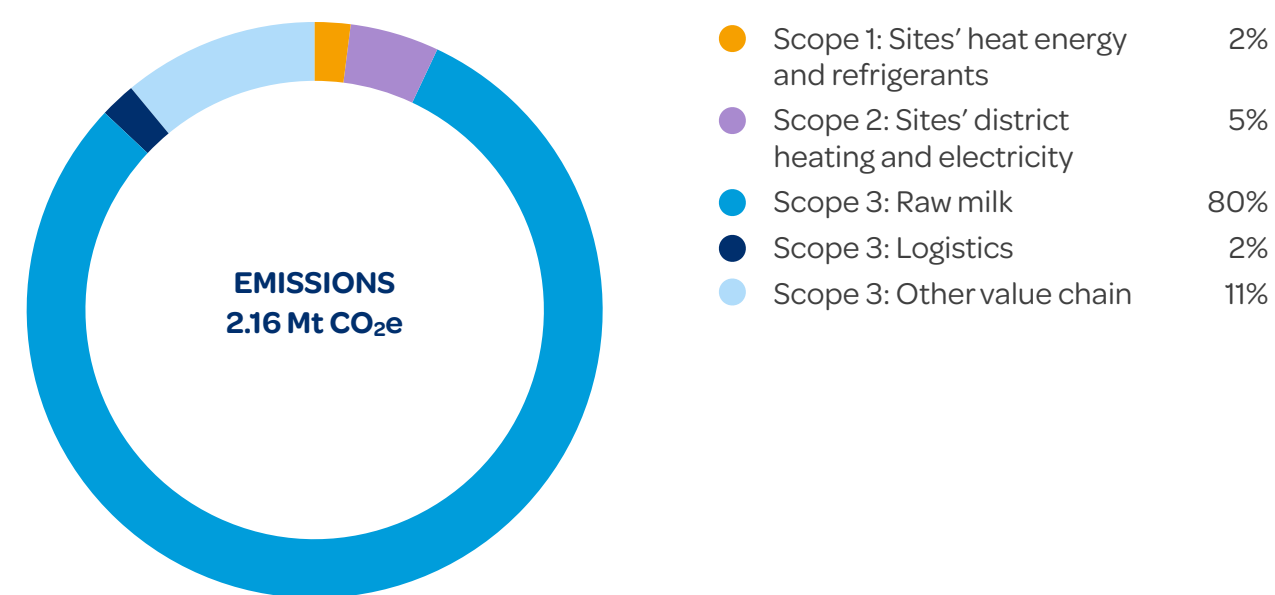
when calculated on a location-based basis. There has been little change in our electricity purchases. We continue to purchase 20 per cent of our electricity as guarantee-of-origin wind electricity and the rest as electricity from the exchange. Electricity consumption increased by just under five per cent.

Valio's emissions from logistics increased by seven per cent in 2023. We have decreased emissions from logistics by making transport more efficient and by switching from diesel to biogas. Our diesel consumption decreased during 2023, but emissions increased due to fuel characteristics. The blending obligation for fuel sold in the European Union requires the addition of renewable raw materials to fossil fuels. Member states have some possibilities to raise or lower the level of the obligation at the national level. In Finland, the share of renewable fuels decreased in 2023, which increased emissions from diesel use.

Total emissions from milk production decreased by three per cent in the year. This is partly the result of a reduction in the volume of milk purchased. Additionally, the calculation of emissions is more accurate than in previous years, as the carbon footprint of raw milk has been calculated by an increasing number of farms. Farms are also aiming for production that is increasingly more resource-efficient.

Valio's emissions accounting was standardised in 2019 to align with the international Greenhouse Gas Protocol. We report emissions from all our Finnish functions for the entire value chain – from primary production to the consumer. We use an operational review in reporting, and the calculation is assured by a third party. [Read more from Valio's 2023 greenhouse gas inventory and the assurance report.](#) →

**Greenhouse gas emissions of Valio Finland's operations 2023**



- **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 of Valio's Finnish operations in 2019–2023

	2019 t CO <sub>2</sub> e	2020 t CO <sub>2</sub> e	2021 t CO <sub>2</sub> e	2022 t CO <sub>2</sub> e	2023 t CO <sub>2</sub> e
<b>Scope 1: production plants, offices and warehouses</b>	<b>74,600</b>	<b>91,200</b>	<b>63,700</b>	<b>43,600</b>	<b>39,300</b>
Heat (non-renewable)	73,800	90,600	63,200	42,000	38,200
Refrigerants	800	600	500	1,600	1,100
<b>Scope 2: production plants, offices and warehouses</b>	<b>84,600</b>	<b>63,900</b>	<b>60,100</b>	<b>59,000</b>	<b>101,100</b>
Heat (non-renewable)	16,500	15,700	16,200	14,300	7,200
Electricity (Market-based)	68,100	48,200	43,900	44,700	93,900
Electricity (Location-based)*	37,100	34,000	31,000	21,100	19,100
<b>Scope 3: other value chain (GHG Protocol category)</b>	<b>2,280,700</b>	<b>2,257,300</b>	<b>2,178,000</b>	<b>2,254,400</b>	<b>2,020,800</b>
Raw milk (1)	1,950,900	1,939,400	1,868,500	1,784,700	1,733,200
Other products' raw materials and packaging materials (1)	66,100	66,400	53,100	56,000	46,500
Cleaning agents and cleaning services (1)	3,800	4,000	7,300	3,000	3,000
Wholesale products and wholesale packaging materials (1)	0	0	0	142,900	42,100
Capital goods (2)	62,100	59,200	56,500	69,900	4,200
Electricity transfer and fuel production losses (3)	25,800	24,600	32,100	27,900	21,500
Milk collection logistics (4)	20,200	20,900	20,100	13,300	15,000
Transport logistics between plants (4)	4,200	3,800	3,300	2,100	2,300
Inbound freight logistics (4)	0	0	0	200	400
Product transport and distribution logistics (4)	22,600	21,900	22,100	22,600	23,500
Waste management (5)	3,700	2,000	1,800	1,700	1,900
Business travel and work commute (6, 7)	4,600	3,600	3,800	6,500	4,500
Product processing, use and disposal (10, 11, 12)	116,700	111,500	109,400	123,600	122,700
<b>Valio Finland total</b>	<b>2,439,900</b>	<b>2,412,400</b>	<b>2,301,800</b>	<b>2,357,000</b>	<b>2,161,200</b>

## Valio Finland Renewable Heat Energy 2023

	t CO <sub>2</sub> e (Renewable**)
<b>Scope 1</b>	
Heat (renewable)	110,600
<b>Scope 2</b>	
Heat (renewable)	44,100

## Baltics greenhouse gas emissions 2023

	t CO <sub>2</sub> e
<b>Scope 1</b>	<b>9,600</b>
Heat (non-renewable)	8,300
Milk collection logistics (own vehicles)	1,300
<b>Scope 2</b>	<b>11,300</b>
Electricity (Market based)	11,300
Electricity (Location based*)	16,700
<b>Total</b>	<b>20,900</b>

## Other greenhouse gas emissions reported in 2023

	2019 t CO <sub>2</sub> e	2020 t CO <sub>2</sub> e	2021 t CO <sub>2</sub> e	2022 t CO <sub>2</sub> e	2023 t CO <sub>2</sub> e
<b>Land use emissions in milk production</b>	770,000	765,500	737,500	704,400	684,100

Climate impacts of Valio's operations in Finland in 2019-2023. Valio complies with the international emission calculation protocol (GHG Protocol) and the emission report is verified by an external operator. Scope 3 categories 8, 9, 13, 14 and 15 do not apply to Valio's business operations in Finland and are therefore outside of reporting. The emissions of raw milk have been updated retroactively for the years 2019-2022 with the refinement of farm-specific life cycle calculations. A new calculation method has been used for the year 2023 in the assessment of the climate effects of capital goods. Land use emissions in milk production have been reported for the first time.

\*Electricity emissions are reported based on market and location. A market-based figure is used in the emissions calculation.

\*\*Emissions from renewable heat production are reported, but they are calculated as emission-free.





### OUR CLIMATE PROGRAMME IS PROGRESSING, AND THE EMISSIONS CALCULATION IS EVOLVING

Our Climate Programme progressed according to plans. The results can be seen in the graph "Progress of Valio's Climate Programme in Finland, 2019–2023". There is more about this in the section **Our climate impacts in 2023**. Over five years, emissions have been reduced by 371,000 tonnes of carbon dioxide equivalent (Mt CO<sub>2</sub>e), or 12 per cent. Dairy farms report precise data about their climate impacts to Valio for the period of the previous full-calendar year. Calculations are accumulated throughout the year. Therefore, the average carbon footprint of raw milk is always based on the data from the year preceding the reporting year. However, in the calculation of Valio's total emissions, the other data from the milk intake is data from the reporting year.

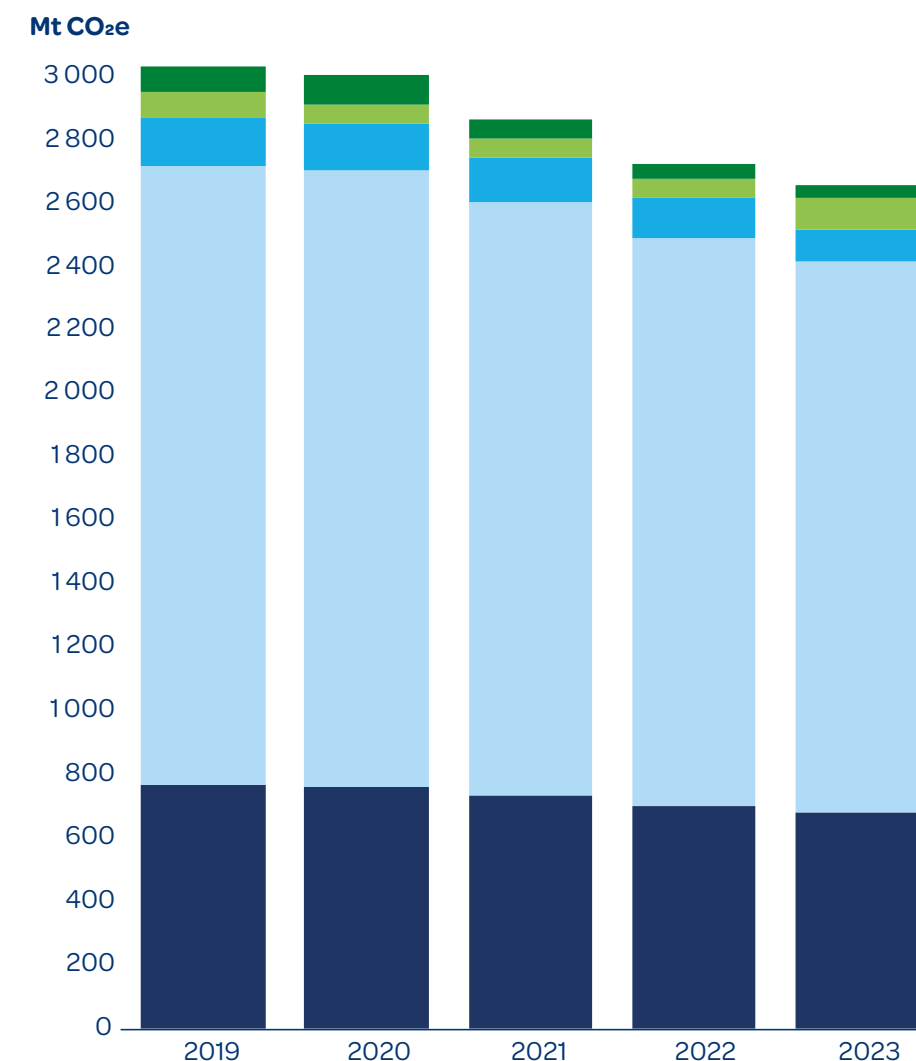
In 2023, we also included in the farm-specific carbon footprint calculation of milk production the carbon dioxide emissions from the fields. These emissions are from organic soils, especially from peatlands. Emissions in 2023 were 0.68 million tonnes of carbon dioxide equivalent (Mt CO<sub>2</sub>e).

Soil emissions are reported separately in Valio's greenhouse gas inventory for the time being, as the international guidelines (GHG Protocol) on corporate accounting of land use sector emissions are not yet finalised. However, we have taken soil emissions into account when tracking the progress of our Climate Programme.

For the land use sector, it is possible to calculate also carbon sequestration from the atmosphere. Based on study data, the carbon sequestration in the soil through carbon farming methods at Valio farms is estimated to be about 140,000 tonnes of carbon dioxide equivalent

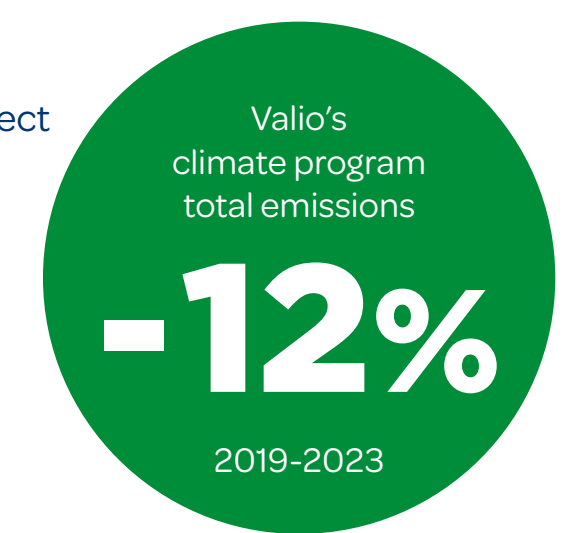
(t CO<sub>2</sub>e) per year (calculated on the basis of the carbon farming hectares reported in 2022 in the Carbo<sup>®</sup> Farm calculator), but it is not yet possible to take this into account in the carbon footprint of milk due to the lack of precise modelling guidance. We are actively developing soil emissions measuring and calculation methods in collaboration with researchers. The aim is to include the farm- and field block-level carbon balance in the Carbo<sup>®</sup> Farm calculator as soon as possible.

## Progress of Valio's climate programme in Finland 2019-2023



### CHANGE FROM BASE YEAR 2019

- 48%** **Scope 1:** Sites' heat energy and refrigerants includes emissions from Valio's own operations
- 20%\*** **Scope 2:** Sites' district heating and electricity includes emissions from Valio's purchased electricity and heat
- 12%** **Scope 3:** Others (includes all other indirect emissions from Valio's value chain)
- 11%** **Scope 3:** Raw milk
- 11%** **Land use**



The progress of Valio's climate program in Finland during the years 2019-2023. Carbon sequestration in arable land is not taken into account in these figures. The climate program does not include the following types of emissions: wholesale products, capital goods, processing, use and disposal of sold products.

\*There was little change in our electricity procurement. Computationally, electricity emissions increased due to the market-based electricity calculation method. [Read more: Our climate impacts in 2023.](#)





**ACHIEVEMENTS IN VALIO'S SCIENCE BASED TARGETS (SBT)**

Our Climate Programme's target of a carbon-neutral milk chain spans to 2035. We are also committed to Valio's science-based SBT climate targets that are in line with the Paris Agreement. The Science Based Target initiative (SBTi) accepted our targets in 2021.

Our target is to reduce emissions from energy use at our production plants by at least 47 per cent and emissions from milk collection logistics by at least 28 per

cent. Additionally, we want to cut by half the carbon footprint of Valio's milk production by 2030 to limit global warming to no more than 1.5 degrees Celsius.

The target for logistics has been achieved. We achieved 23 per cent of the target for production plants and nine per cent of the target for milk production. [Read more from the part Our climate impacts in 2023.](#)

**Progress of targets 2019-2023**

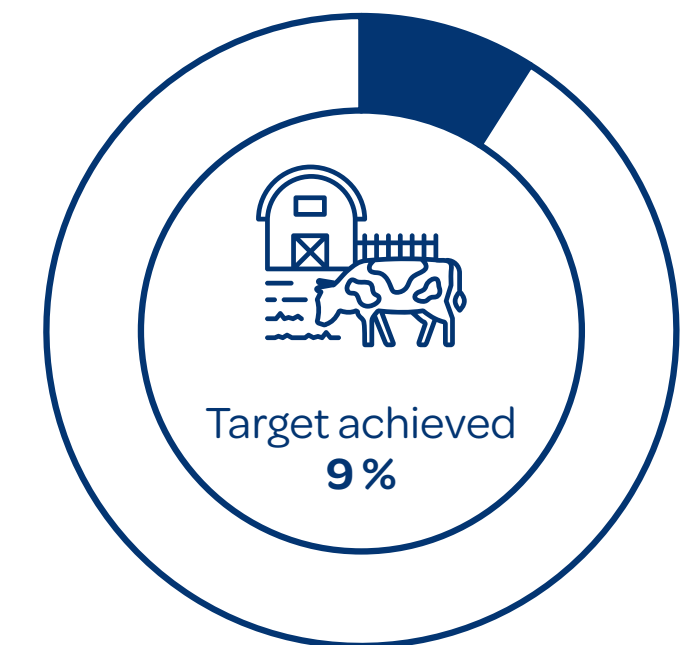
Progress of Valio's SBTs is on track to limit climate warming to 1.5 degrees.



**Energy used by plants**  
-47%  
Scope 1 and 2



**Milk collection logistics in Finland** -28%  
Scope 3



**Carbon footprint of dairy farms** -50%  
Scope 3



**Scope 1:** Sites' heat energy and refrigerants includes emissions from Valio's own operations  
**Scope 2:** Sites' district heating and electricity includes emissions from Valio's purchased electricity and heat  
**Scope 3:** Others (includes all other indirect emissions from Valio's value chain)



# Climate Programme's key achievements in 2023

The key achievements of our Climate Programme in 2023 were related to the carbon footprint calculation of dairy farms, the piloting of emissions-reducing technology, and the advancement of energy self-sufficiency on farms and climate-smart farming practices.

**1.**

## We introduced a new voluntary Sustainability Bonus for dairy farms

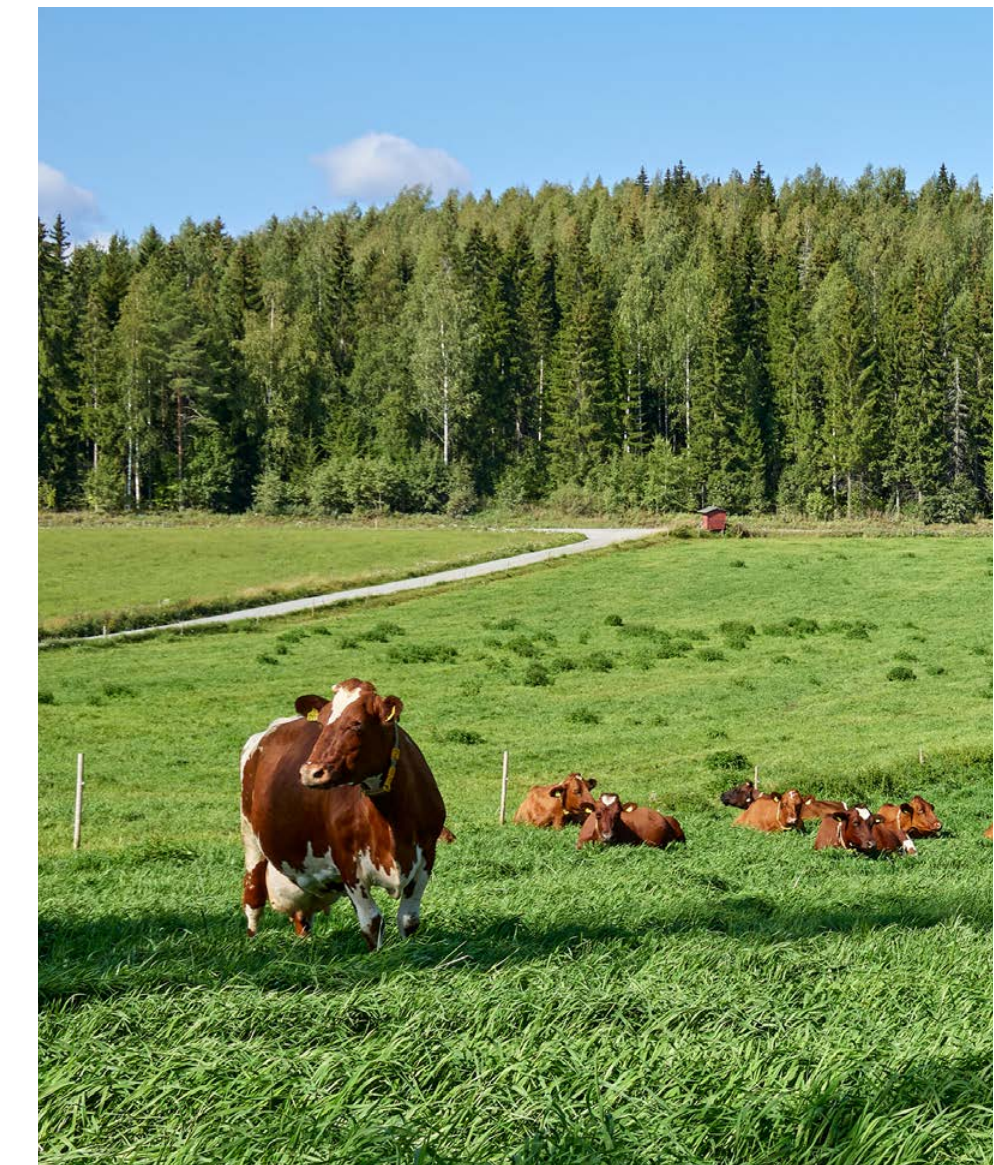
Valio updated its primary production Sustainability Programme in 2023. With the update, we introduced a new voluntary sustainability bonus of up to 1 cent per milk litre for dairy farms.

The bonus is based on farm-level actions related to grazing cattle, supporting biodiversity, and efforts aiming to reduce milk's carbon footprint. The actions go beyond the legislative requirements in force in 2023.

Based on their actions, all dairy farms received Valio's two cents per milk litre sustainability bonus that was already in place. 86% of dairy farms committed to the voluntary sustainability work.

With the entry into force of the Animal Welfare Act on 1.1.2024, the sustainability bonus programme for primary production will be updated again in May 2024. The update will increase the emphasis on the voluntary sustainability actions.

[Read more about the Valio's dairy farm sustainability programme here.](#) →







## 2.

## Suomen Lantakaasu Oy's biogas project advanced on schedule

Valio and energy company St1's joint venture Suomen Lantakaasu Oy's plans to start production of biogas in Upper Savo advanced on schedule in 2023. The planned complex includes a total of four biogas plants that will use agricultural biomass in their production. The plants are expected to be operational in 2026.

During the year, we selected the exact location for the Kiuruvesi biogas plant, which is the largest of the planned plants. Among the factors that we took into consideration in the selection process were the site's infrastructure, the wishes of local residents and the amount of agricultural biomass available to the biogas plant. The environmental impact assessment for the Kiuruvesi biogas plant was completed in summer 2023.

In addition to the Kiuruvesi biogas plant, the plan includes three medium-sized satellite plants in its vicinity. The biomethane produced in these plants will then be further processed into liquefied biogas in Kiuruvesi. The sites chosen for the satellite plants are Sonkajärvi, Lapinlahti and Nurmes. The plants are in areas with high volumes of agricultural biomass.

The use of agricultural biomass for biogas production reduces emissions from both agriculture and heavy transport. In addition, the use of locally produced agricultural biomass will improve Finland's security of supply and will increase the vitality of predominantly agricultural areas.

A byproduct of biogas production is hygienised organic fertiliser, which is less odorous, more efficient and more environmentally friendly than untreated manure. With the new biofertiliser, farm nitrogen fertiliser costs will decrease because the amount of soluble nitrogen in biofertiliser is as much as 20-30% higher than in untreated manure. Suomen Lantakaasu Oy believes in its replicability and has begun to survey other parts of Finland to identify sites for the next production plant complexes. In late February 2024, Suomen Lantakaasu Oy announced the acquisition of the majority shareholding in Nurmon Bioenergia Oy. The plan for industrial-scale liquefied biogas production plant in Nurmo contributes to the construction of a liquefied biogas production network.

## 3.

## Carbo® Farm calculator version 2.0 released

A new version of the Carbo® Farm calculator was released. Version 2.0 includes extended functionality, especially for beef producing farms, and allows a more accurate calculation of the carbon footprint of beef cattle farms.

The calculator now also considers the emissions from peatland, emissions from refrigerant spills, and emission reductions from the use of a feed additive. The addition of new emission sources has increased the average carbon footprint of raw milk computationally, but the overall carbon footprint has decreased since 2019.

The update takes into account that the calculation models and factors are in line with the latest sector recommendations. Today the calculator's calculating principles are based on the Intergovernmental Panel on Climate Change (IPCC) recommendations, the European Commission's Product Environmental Footprint Category Rules (PEFCR), and on Valio's, the Natural Institute of Finland's and Atria Finland Ltd's own research.

In 2023, the Carbo® Farm calculator was used by some 2,400 farms, representing around 78% of Valio's purchased milk volume. This figure shows that the calculator is considered reliable and is widely used in the agricultural sector. The version update reinforces the calculator's role as an effective tool in carbon footprint monitoring and in promoting climate and environmentally friendly production. In addition, a standard national model improves the environmental impact assessment in the Finnish livestock sector overall and creates ground rules for emissions calculations.







4.

## 1,500 farms trained in Carbon Farming

Climate change can be mitigated by increasing the carbon sequestration of fields through carbon farming methods. By organising carbon farming training events for dairy farmers, we are promoting more climate-sustainable farming and food production.

Farmers can improve the soil's carbon sequestration ability, e.g., by increasing the variety and deep-root species of grasses and by keeping fields green year-round. Together with Finnish grass experts and the Baltic Sea Action Group (BSAG), we are training dairy farmers in carbon farming.

By the end of 2023, we had trained about 1,500 farms, i.e. an estimated 40 per cent of all Valio farms. Carbon farming is already happening on almost 130,000 hectares. We are the main partner in BSAG's E-College for Regenerative Farming. The free online course offers farmers and students information about regenerative agriculture and improving the soil health.



5.

## Peatland research progresses and first restoration project launched

About one fifth of the arable land of Valio farms is organic soil and peatland. Peatlands are areas that have been converted from swamp and peatland forests into arable land, and their challenge from a climate change perspective is high erosion, i.e. the release of carbon from the soil into the atmosphere.

By developing farming practices, it is possible to mitigate the climate impacts of peatland to some extent. For several years, Valio has participated in peatland studies. The results of the Climate change mitigation in organic soils on cattle farms Project (Orgaanisten maiden ilmastovaikutusten hillintä nautakarjailoilla, OMAIHKA), completed in 2023, were published in April.

Its results supported the findings of other research projects showing that emissions from peatlands vary widely and that further research is needed to calculate emissions on a parcel-specific basis. The clearest recom-

mended climate measures for peatlands are year-round crop cover, especially grassland, reducing tillage and raising the water table. Measures to mitigate the climate impacts of peatlands have been piloted on 11 Valio farms during the summers of 2022 and 2023.

Regarding low yielding peatland, the most effective climate measure is to re-wet the fields to natural wetlands or to restore them back to swamps. In 2023, Valio started its first peatland restoration project (Vedet haltuun valuma-alueilla). The project targets a three-hectare peatland on a Valio farm in northern Finland. In addition to climate impacts, the project aims to reduce flooding in the area and improve water quality by retaining water in a wetland on the peatland. The restoration project will provide valuable information to support our climate and nature work and to improve land use on dairy farms.





## CASE

### Feed additive was easy to use

“There’s a lot of talk about climate change in society, and of course I’m interested in the topic too. I hadn’t heard anything about 3-NOP, but when I learned that it reduces climate emissions, I was happy to take part in Valio’s pilot project to test the use of the methane-reducing additive.

We have separate feeding and concentrated feed bins in our freestall barn. 3-NOP was added to the complete feed at the feed factory, and the dairy cows ate the feed from the concentrated feed bins.

The pilot did not cause any extra work. I just made sure that I knew when the 3-NOP doses had been started, which group of animals they had gone to, and when the doses were stopped. The pilot lasted about three months on our farm.

3-NOP didn’t affect the farm’s milk production or the welfare of the cows. The cows liked the feed, and it performed as usual.”

**Harri Kärkkäinen**, Rapakko farm, Kiuruvesi

Dairy farmer Kärkkäinen has 140 cows and the same number of young cattle. The freestall barn with two milking robots were built in 2006 and expanded in 2019. Most of the 140 hectares of arable land is silage grassland. Some whole grain silage is also produced.

6.

### We tested methane emissions-reducing technology

Methane emissions per litre of milk from Finnish dairy cows have dropped by half over the past 50 years thanks to improved cow nutrition and health, and because of breeding efforts. However, the methane produced in the rumination process of cows still accounts for about 35 per cent of Valio’s milk carbon footprint when the soil’s carbon balance is not taken into consideration. We are actively exploring new technologies to reduce methane emissions.

In 2023, we tested a new feed additive to reduce the methane emissions of some 3,000 cows at Valio farms. The pilot was part of the Ministry of Agriculture and Forestry-funded large-scale cooperation project between Valio, Natural Resources

Institute Finland, the University of Helsinki and A-Rehu. The feed additive (3-NOP, 3-Nitrooxypropanol), developed by the Dutch feed industry company DSM, can reduce ruminal methane emissions from cows by about 30 per cent. The feed innovation reduces milk’s carbon footprint by more than ten per cent. There are about 70 scientific studies on the use and safety of 3-NOP, and the EU approved its use as a feed additive in 2022. Our aim is to take it into wide-scale use in the future.

We also continued our work in two EU-funded international consortia studying methane capture and break down in barns. The work of the consortia started in autumn 2022 and will continue for four years.



## We strengthen biodiversity

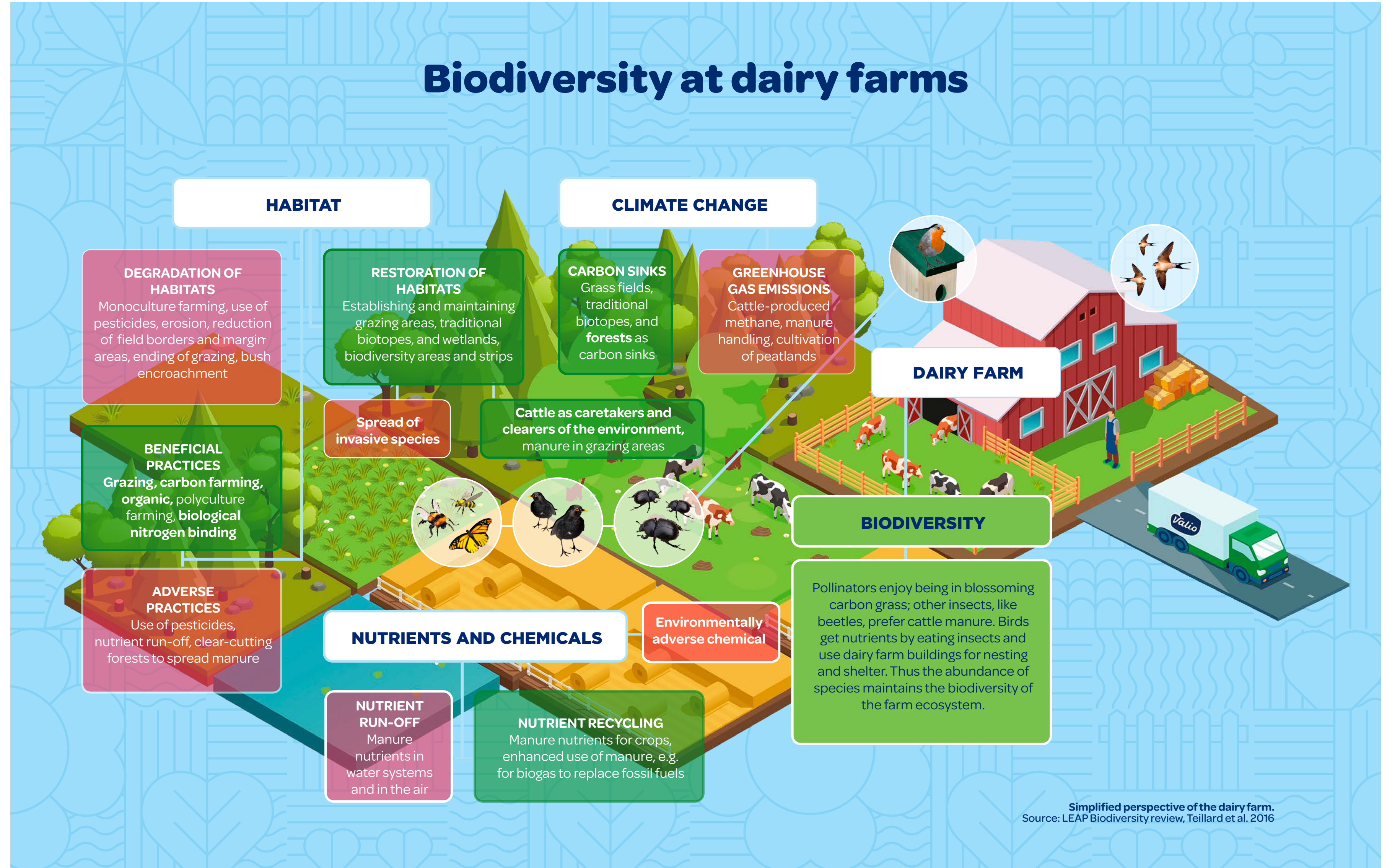
**WE HAVE PLACED** our nature work more firmly alongside our climate work, both in leadership and in the work of Valio's different functions. The biggest nature impacts in Valio's value chain are in dairy primary production. In fact, we have started our biodiversity-related work in milk production.

In addition to milk, Valio's products use many other raw materials, and Valio's wholesale product portfolio is vast. Therefore, we are also constantly looking at our other value chains that have more complex biodiversity impacts than milk production, and we are developing, e.g., our procurement criteria.

Going forward, our aim is to map the natural values of our production sites and, where possible, strengthen them.

### WE STARTED MAPPING THE NATURE IMPACTS OF OUR ENTIRE VALUE CHAIN

We have identified biodiversity risks and opportunities for business. We also actively monitor national and international biodiversity-related regulation and its development. The main risks in the food sector relate to the weakening of the ecosystem services and the major ecosystem changes caused by the accelerating loss of biodiversity.







We have assessed that our role as a significant domestic operator offers us an opportunity to strengthen biodiversity. Milk production has a key role in maintaining Finland's biodiversity. If livestock farming and grazing disappear, pasture habitats will start to decline because of overgrowth and their biodiversity will weaken, impacting birds and insects in particular. Grazing, traditional biotopes, indigenous cattle breeds and diverse grassland farming are examples of how milk production contributes to agricultural biodiversity.

In 2023, we started a nature impact assessment for our entire value chain and identified the pressures our own operations have on nature. We also started some smaller-scale practical measures, such as a peatland restoration project and a study on voluntary ecological compensation.

With the updated primary production sustainability programme, dairy farmers can now receive a new sustainability bonus for their biodiversity work. The sustainability programme's optional actions to support biodiversity include increased grazing, sowing a biodiversity area and managing a contract area under an environmental agreement (e.g. a traditional biotope or a field with high biodiversity value). The sowing of a perennial biodiversity area and the raising of Finncattle will be added to the actions in 2024. [Read more about the dairy farm sustainability programme here. →](#)

**WE WORKED ON TARGETS FOR NATURE AND DEVELOPED INDICATORS**

We participated in a pilot project launched in 2022 by FIBS (Finnish Business & Society) and the Finnish Innovation Fund Sitra to set Science Based Targets for Nature. In 2023, we continued to work on our targets independently, based on the project. However, the SBT for Nature framework is not yet ready. We are actively following the progress of the work and aiming to set our actual science-based targets once the framework is complete.

In 2023, we participated in the EU's five-year CircHive project, which focuses on developing methods for biodiversity footprinting and natural capital accounting. In 2024, we will continue to develop metrics related to biodiversity. We want to develop a tool that is suitable for our farms and tailored to Finnish conditions.

During the year, we participated in workshops organised by the Finnish Food and Drink Industries' Federation (ETL) Biodiversity Working Group. The group worked together on an industry-wide study of the food industry's impacts on biodiversity. The report was published in June 2023. [The report can be read here. →](#)

We have explored the possibility of ecological compensation at our pilot site. Ecological compensation is a voluntary means of compensating for damage to nature by providing ecologically equivalent compensation elsewhere. Compensation can be provided, for example, by restoring, rehabilitating and conserving nature.

**In 2023, we started a habitat impact assessment across our value chain and identified the pressures on nature caused by our own operations.**

For years, we have persistently worked to support biodiversity on dairy farms. In 2023, we encouraged one of our dairy farmers to offer their farm as a teaching site for the University of Helsinki's Wildlife in the Farming Environment course. During the course, the students mapped the farm's natural values and created a biodiversity plan for the farm. The farmer received the support he needed to promote biodiversity and the students gained valuable real-life experience in mapping natural values.





## We improve resource efficiency in production and warehouses

**OUR OPERATIONS ARE GUIDED BY Valio's Environmental Policy** and our environmental management system, which has **ISO 14001 certification** covering the Finnish and Estonian operations. We have identified the most significant environmental impacts of our operations and are committed to reducing them in line with our environmental policy by continuously improving our operations from a resource efficiency and life-cycle perspective. We regularly monitor environmental issues at sites at various organisational levels in line with our management system. The key environmental indicators are also monitored by Valio's top management.

More efficient use of energy and materials is closely linked to reducing climate emissions and enhancing biodiversity. Valio uses the most energy in maintaining the production hygiene needed to produce high-quality products. Raw milk is by far the most used material at Valio.

### WE ARE IMPROVING ENERGY EFFICIENCY AND INCREASING THE SHARE OF RENEWABLE ENERGY

Improving energy efficiency is an important part of our Climate Programme. Valio has committed to improving energy efficiency by signing an Energy Efficiency Agreement and by joining the Food industry's energy efficiency programme. In line with the programme, we are implementing energy-efficiency actions at our production plants, and we report on them annually to Motiva. Energy efficiency is also closely linked to Valio's cost-efficiency programme. These actions are moni-

tored and are reported on monthly in the energy steering group meetings.

Our goal, consistent with the Finnish food industry's energy-efficiency agreement, introduced in 2017 and ending in 2025, is to improve the efficiency of energy use 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 13 per cent of our energy consumption in 2015, i.e. an annual energy savings totalling 92.7 GWh.

We have already exceeded our target, but we will continue efficiency-boosting actions to minimise environmental impacts and to improve cost efficiency. In 2023, we boosted the efficiency of our annual heat use by a total of 20.1 GWh, but, due to the heat pump solution, the energy-efficiency actions increased annual electricity use by 0.2 GWh.

Our total energy consumption has remained at about the same level, but the share of renewable fuels in heat production has increased significantly and now accounts for about two thirds of total heat production fuels. Renewable biofuels, like wood chips, sawdust, bark and bio-pellets, are sometimes in short supply. To ensure security of supply, we will maintain the possibility to burn peat.

In heat energy procurements, we are moving towards the use of electricity. Together with our energy partners, we have invested in two electric steam boilers and signed a contract for a third boiler. We also built a new heat pump system at our Seinäjoki production plant.

### Energy consumption by source in Finland\*

	UNIT	2019	2020	2021	2022	2023
Consumption of heat	GWh	499	494	491	492	491
Consumption of electricity	GWh	238	243	237	238	250
<b>Consumption of energy altogether**</b>	<b>GWh</b>	<b>730</b>	<b>737</b>	<b>728</b>	<b>730</b>	<b>727</b>
<b>Heat fuel shares</b>		<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Peat	%	27	35	25	16	14
Light fuel oil	%	6	5	9	9	4
Natural gas and liquid petroleum gas	%	10	10	10	5	4
District heat **	%				2	2
Electricity ***	%				1	3
Renewable fuels	%	55	48	56	67	73
<b>Fuel shares of heat production</b>		<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
Domestic fuels	%	83	83	81	83	86
Import fuels	%	17	17	19	17	14

\* Including production plants, main office, wholesale operations and Tuusula Itäkangas from 2022 onwards.

\*\* Electricity used by energy partners in electric boilers and heat pumps is subtracted.

\*\*\* District heat without certificates of origin is reported separately from 2022 onwards.

\*\*\*\* Electricity used by energy partners in electric boilers and heat pumps.

\*\*\*\*\* District heat and electricity are calculated as imported fuels.





### Energy consumption at Valio's production plants, 2023 (GWh/a)\*

	FINLAND	ESTONIA	TOTAL
<b>Electricity (total)</b>	<b>234</b>	<b>18</b>	<b>252</b>
Electricity (with certificates of origin)	46	0	46
Electricity (without certificates of origin)	188	18	206
<b>Heat (total)</b>	<b>481</b>	<b>27</b>	<b>508</b>
Heat (renewable)	356	0	356
District heat (without certificates of origin)	2	0	2
Heat (non-renewable)	123	27	150
<b>All total **</b>	<b>701</b>	<b>45</b>	<b>746</b>
Renewable/with certificates of origin total	402	0	402
Non-renewable/without certificates of origin total	299	45	344

\* Does not include main office, only production plants.

\*\* Electricity used by energy partners in electricity boilers and heat pumps is subtracted.

### Energy consumption at Valio's production plants, 2023 (TJ/a) \*

	FINLAND	ESTONIA	TOTAL
<b>Electricity (total)</b>	<b>842</b>	<b>65</b>	<b>907</b>
Electricity (with certificates of origin)	166	0	166
Electricity (without certificates of origin)	677	65	742
<b>Heat (total)</b>	<b>1,732</b>	<b>97</b>	<b>1,829</b>
Heat (renewable)	1,282	0	1,282
District heat (without certificates of origin)	7	0	7
Heat (non-renewable)	443	97	540
<b>All total **</b>	<b>2,524</b>	<b>162</b>	<b>2,686</b>
Renewable/with certificates of origin total	1,447	0	1,447
Non-renewable/without certificates of origin total	1,076	162	1,238

\*Does not include main office, only production plants.

We improved energy efficiency significantly in 2023. The success is largely attributed to the heat pump system commissioned during the year at the Seinäjoki plant. Additionally, we carried out more than fifty other energy-efficiency actions at our production plants during the year.

Examples of other energy-efficiency actions taken in 2023:

- Leakage surveys of compressed air systems
- LED lighting replacements
- Dairy wash optimisations
- Investment in a more efficient air compressor
- Ventilation upgrade
- Recovery of expansion steam

In 2024, we aim to continue the electrification of processes and increasing energy efficiency by identifying and implementing improvements to the existing heat recovery systems in our production plants. Electrification and energy-efficiency improvements strongly support Valio's strategic target of a carbon-neutral milk chain by 2035.

We contribute to energy efficiency in the food industry by participating in the steering group of the Finnish Food and Drink Industries' Federation's energy-efficiency action plan. We are also participating in the working group on continuous improvement of energy-intensive industry and in the work of the Confederation of Finnish Industries' energy and climate committee. We will con-

tinue our work in these groups in 2024, and we will maintain the exchange of information between production plants to ensure the development of energy-efficiency activities.

#### WE ARE SYSTEMATICALLY REDUCING THE ENVIRONMENTAL IMPACTS OF OUR PRODUCTION PLANTS AND WAREHOUSES

From an environmental perspective, the biggest challenge for the development of Valio's strategy and business comes from the fragmentation of production operations, which is continuing to grow. The fragmentation is visible in the volume of individual product items, the volume of semi-manufactured products needed for the manufacturing of a single product and the high number of production batches. These factors increase the need to wash equipment at plants, and thus also increase water consumption and wastewater volumes. The increasing production of plant-based products on the same production lines as milk-based products further increases the need for washing.

Data from environmental monitoring is steering our production activities and the related decision-making in a more resource-efficient direction.

[Read more about the environmental impacts of our operations on our website. →](#)





### WE ARE IMPROVING EFFICIENCY IN WATER USE AND REDUCING WASTEWATER LOADS

Valio's sites in Finland are connected to municipal sewer networks and their wastewater is routed to municipal wastewater treatment plants. The industrial wastewater treatment agreements we have made with water utilities set maximum permitted load values for various parameters. In several of the municipalities where we operate, we have directly contributed to the investment costs of the treatment plants. Our sites in Estonia have their own wastewater treatment plants.

We monitor our wastewater load and volume in relation to the milk volume received. Our goal in 2023 was to maintain water consumption relative to the milk volume received and to limit the increase in the Chemical Oxygen Demand (COD) load to 0.5 per cent; COD reflects the hazardousness of wastewater to oxygen-dependent organisms.

We achieved both targets. The wastewater load decreased by 2.6 per cent, and wastewater volume relative to the milk volume received remained at the level of the comparison period.

In 2022, we developed a concept to improve efficiency of water use at production plants. The concept takes into account not only the reduction of water use, but also the opportunities to increase water recycling. The concept includes measurements, audits and calculations. In 2023, we started the first concept study, the results of which will be available in 2024.

### Water use in Valio's production plants, 2022 (m<sup>3</sup>)

	FINLAND	ESTONIA	TOTAL
<b>Fresh water withdrawal by source</b>			
Municipal waterworks	4,545,322	0	4,545,322
Groundwater (own wells)	449,944	585,339	1,035,283
Surface water (own treatment)	114,996	0	114,996
<b>Domestic water All</b>	<b>5,110,262</b>	<b>585,339</b>	<b>5,695,601</b>
Cooling water from water bodies*	3,131,537	0	3,131,537
Water recycled and reused	1,154,471	61,728	1,216,199

\*returned to water body.

### Wastewater and wastewater loads 2023 (m<sup>3</sup>)

	UNIT	FINLAND (Loads to the municipal treatment)	ESTONIA (Loads from the own treatment to the water body)
Waste water flow	m <sup>3</sup> /a	5,401,576	646,221
COD	tn/a	9,141	11.4
BOD	tn/a	5,864	2.5
Nitrogen	tn/a	519	4.4
Phosphorus	tn/a	147	0.4
Suspended solids	tn/a	1,978	5.6

The Helsinki juice factory reduced its wastewater load by half in 2023 as part of achieving Valio's environmental target.





### WE ARE REDUCING WASTE VOLUMES BY RECYCLING MATERIALS

Our goal is to use raw materials and consumables resource-efficiently. In waste management, we aim to implement the first-priority principle of diverting as much material as possible for reuse and recycling. In 2023, we paid particular attention to the diversion of plastics to material recycling.

Environmental protection authorities monitor the operations of Valio and waste management companies. We check the permits and registrations of our sites' waste management partners before we start working with them. In terms of waste management, the most significant factor in 2023 was that the amount of waste going to biogas production continued to significantly decrease. The change was due to the reduction in product waste.

### WE ENGAGE IN COOPERATION WITH ENVIRONMENTAL AUTHORITIES

All production plants in Finland and Estonia, except one, require an environmental permit. Late 2023 marked the end of the transition period for the EU-level environmental permit requirements for the food industry, published in 2019. At two sites, we continued technical studies and test runs to reach the new dust emissions limits for powder drying. In 2023, we did not need noise abatement measures or the noise studies required for their planning.

The hazard classification of concentrated nitric acid, which is widely used in our process washing, changed at the beginning of March 2022. The change elevated

five of our sites to a higher category of regulatory requirements.

In 2023, the Safety and Chemicals Agency (TUKES) inspected five of our plants within the framework of the normal monitoring plan. The classification of four of the plants had changed as a result of the hazard classification of nitric acid. The inspections did not reveal any significant deficiencies.

The amended Waste Act that came into force in 2021 and the new waste decree do not significantly impact the waste management of our Finnish operations, but their impacts on the arrangements and costs for recycling the packaging we release into the market continued in 2023. Valio Ltd has been a stakeholder in associations responsible for the recycling of plastic and fibre packaging. In 2022, a producer association covering all packaging materials was formed in line with the new Waste Act, and Valio is a stakeholder in the association.

We monitor the preparation of environmental legislation at both the EU level and in Finland through our membership in the Finnish Food and Drink Industries' Federation. The environmental audits and regulatory inspections in 2023 did not reveal any material shortcomings in our operations.

From the beginning of 2023, Valio's basic environmental management training became online training. During the year, all those who completed the training were new Valio employees, but our plan is that the training will cover all personnel in the future.

### Raw materials used in Valio's own production plants, 2023 (tn)

	FINLAND	ESTONIA	TOTAL
Raw milk	1,663,784	218,641	1,882,425
Fruits and fruit preparations	9,404	1,561	10,965
Other raw materials (sugars, salts, vegetable oils etc.)	25,450	732	26,182
Packaging materials	22,227	2,752	24,979

### Waste management by type and disposal method, 2023 (tn)

	FINLAND	ESTONIA	TOTAL
Hazardous waste	145	6.5	152
Reuse & Recycling (plastic, metal, glass, paper etc.)	1,980	357	2,337
Waste to energy	1,149	161	1,310
Composting and biogas	15,873	19,210	35,083
Waste incineration	537	52	589
Waste to landfill	13	17.3	30
<b>Total amount</b>	<b>19,697</b>	<b>19,803.8</b>	<b>39,501</b>

### Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions, 2023 (tn)

	FINLAND	ESTONIA	TOTAL
Nitrogen oxides	247	11.5	259
Sulfur oxides	69	35	104
Particles	4.4	3	7
Powder dryers, dust emissions	13,035	0	13,035





**WE ARE REDUCING MILK WASTE**

Reducing milk waste in our production is important from a cost and productivity perspective. As a result of the waste reduction, it takes less raw material to make the products since all the milk is utilised. At the same time, less emissions are produced.

We reduced the waste generated in our production in 2023 through dozens of development projects. Reducing waste was part of the 2022 launch of the strategic #2025 programme that aims to increase the milk return through efficiency improvements, operational development and new profitable business. Our main objective is to reduce waste from the use of milk raw material and from quality defects and operations by 50 per cent over a four-year period (2022–2025).

We continued the #2025 programme-related renewal of operational reporting and the strengthening of technological capability. This enables better knowledge-based management, development of the milk raw material reporting system and real-time analysis. We expanded the use of the technology platform of the plants' automation systems to support and assist various operational applications. In doing so, we are making waste a more transparent part of daily management practices.

In 2023, we succeeded in managing the seasonal variation of milk much better than in previous years, thus reducing waste. In the #2025 programme projects, we reduced milk raw material waste by about 12 per cent and production error costs by about 20 per cent compared to 2022.

We continued to implement Valio's common production method in plant management. We also continued personnel training, accompanied by quality improvement projects in the daily work at the plants.



**CASE**

**Prevention of waste as part of wholesale business sustainability**

Success in the sustainability of wholesale operations requires good collaboration with our customers. We want to enable responsible choices for our customers.

Timely availability and the right quantities of products are key factors in preventing inventory waste in wholesale operations. We strive to get the most accurate demand information from our customers in advance so that

we can anticipate changes in demand in our portfolio. We also actively work to sell off expiring batches in time so that we avoid the unnecessary disposal of products.

The development of our information system supports our goal of reducing waste. It also contributes to the need to ensure the availability of the right products even in cyclical demand situations.

We trained quality improvement experts for our plants to systematically implement improvement projects to eliminate waste. We will expand the personnel training to the supervisor and expert levels in 2024.



**CASE**

**Valio Sweden reduced food waste by 89% in collaboration with Matmissionen supermarket**



Matmissionen is a 'social grocery chain' established in Sweden by the Stockholm City Mission. The chain has been set up in cooperation with retailer and suppliers' associations. People on low income can apply for a membership to the chain and buy products at up to one third of their normal price. The products sold are donated by grocery stores, for example. There are currently 11 Matmissionen stores in Sweden, and there are plans to expand the chain.

Valio Sweden is focused on reducing food waste in partnership with its customers, including through demand forecasting. Despite this, sometimes products cannot be delivered to customers due to a short remaining shelf-life. In 2023, Valio Sweden supplied 15,350 kg of short shelf-life products to the Matmissionen chain. As a result of this cooperation, product waste decreased by as much as 89% compared to 2021 level.





# Environmentally smart packaging

## Minimising climate impacts

### Packaging commitments

TOWARDS A CIRCULAR ECONOMY AND MINIMIZING CLIMATE IMPACT



### Priority areas



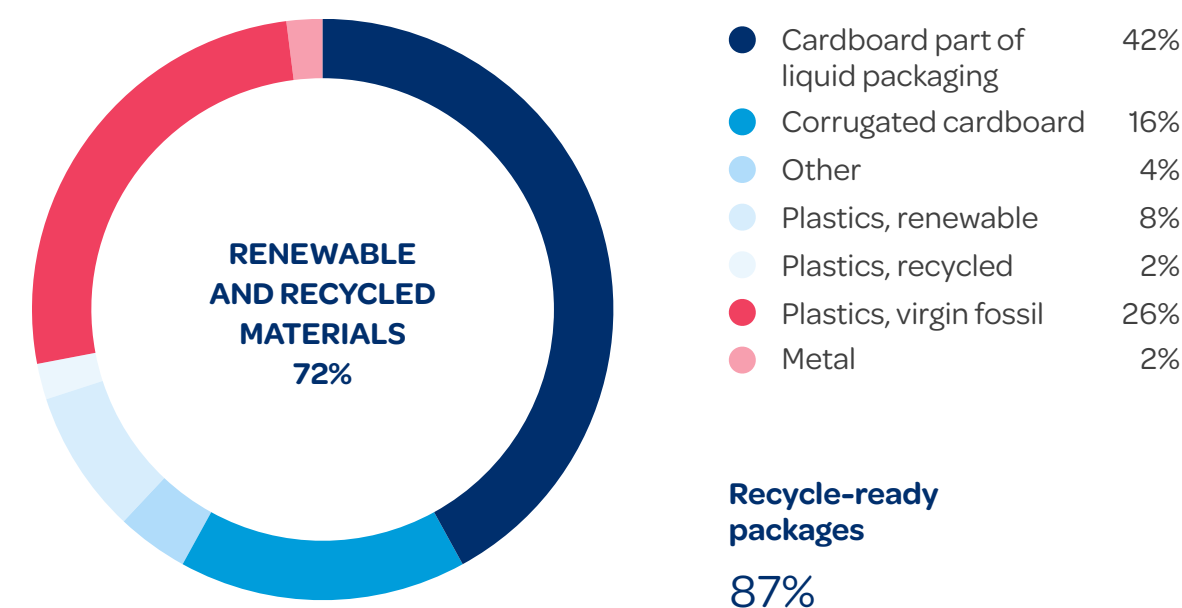
**WE AIM FOR** environmentally smart packaging. We are committed to protecting products and thereby minimising food waste, to using packaging materials that are suitable for reuse as raw materials, and to minimising climate impacts by using renewable or recycled packaging materials. The carbon footprint of Valio’s packaging is less than one percent of the product’s total carbon footprint.

[Read more about sustainable packaging on our website.](#) →

### OUR PACKAGING PROTECTS FOOD AND PREVENTS WASTE

Packaging’s most important task is to protect the product, ensure its safety and shelf-life, and thus prevent food waste. The number of consumer contacts we received related to microbiological anomalies has decreased significantly from the 2019 base level (4.7). In 2023, we received 3.0 (2022: 2.1) contacts for every million products packaged. Our ambitious target is to reach level 1 in the number of contacts by the end of 2030. To achieve this, we will further strengthen quality control in our packaging processes.

### Single-use packaging material in Finland, 2023 16.8 Mkg (2022: 17.2Mkg)



Product shelf-life is affected by the type of product, for example, but most important is the correct storage temperature. If necessary, you should rely on your own sense of smell and taste. To encourage consumers to reduce food waste, in 2023 we introduced a new “Best before, often good after” label. Some beverage packaging (such as Valio sour milks) features this label. We will continue to communicate about this. The rollout of the label will be expanded during 2024.

### WE CONSERVE NATURAL RESOURCES BY USING RENEWABLE AND CIRCULAR ECONOMY MATERIALS

Packaging made from renewable materials and suitable for the circular economy helps us conserve natural resources and reduce climate emissions. Our goal is that by the end of 2030 all the single-use packaging materials we manufacture and sell in Finland are made from renewable materials or materials suitable for reuse as raw materials.

In 2023, 72 per cent (2022: 73%) of our single-use packaging materials were made from renewable or recycled materials. The one percentage point decrease compared to the previous year was mainly due to changes in customers’ product choices. As consumers bought fewer and cheaper products, the amount of liquid packaging board used decreased. In 2023, we used 390,000 kg less packaging material than in 2022. Currently, the containers (including their caps) of all the gable-top milk, sour milk, cream and yoghurt we sell in Finland are made from 100% renewable materials.

We are reducing the amount of plastic we use by replacing it with renewable materials. In 2023, we introduced more new cups that can be recycled with cardboard. For example, some Valio PROfeel® layered protein quarks, flavoured Valio quarks and Koskenlaskija® Ruoka





& Dippi products are now also packaged in cardboard cups. We aim to bring more cardboard cup packaging to the market in 2024.

In late 2023, we increased the use of recycled plastic in the caps of beverage containers. The caps of Valio PROfeel® protein smoothies and Valio Latte drinks, among others, are made with 30 per cent recycled plastic. We continued the use of recycled plastic in our sliced cheese packaging. Each sliced cheese packaging contains at least 55 per cent recycled plastic. In 2024 we will increase the use of recycled plastic in entirely new types of packaging.

**THE RECYCLING OF PACKAGING CONTRIBUTES TO A TRUE CIRCULAR ECONOMY**

All of Valio's single-use packaging sold in Finland is easy to recycle in packaging collection systems. However, all packaging materials from collection systems still do not end up within the sphere of a true circular economy, i.e. into new products.

In 2023, 87 per cent of the packaging materials produced by Valio and sold in Finland can truly end up as new products through the circular economy. This is at the same level as in 2022 (88%). We will continue as planned toward our ambitious target: packaging materials that are 100% suitable for reuse as raw materials.

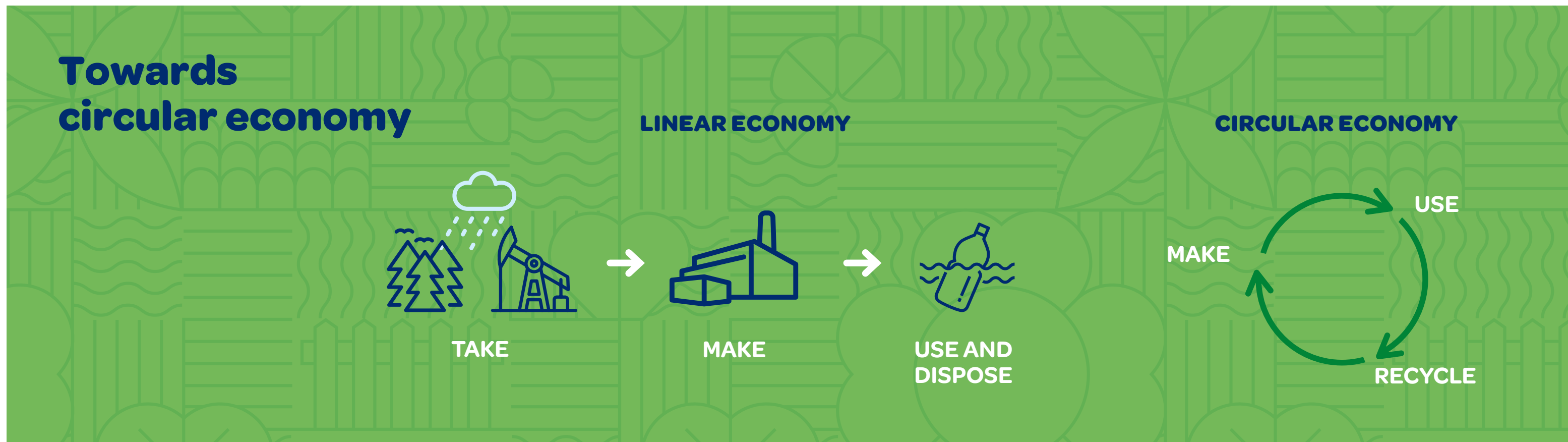
We encourage consumers to recycle. In 2020, we started adding easy-to-find, plain-language recycling instructions to our packaging to make everyday life easier. We will continue the work as planned. We have also added easy recycling instructions to [Valio's packaging-related website](#).

At the end of 2022, we also introduced the first green sustainability labels to our packaging. These offer a visible, easy and understandable indication of environmentally smart packaging. We clearly increased the use of the labels in 2023. [Read more about packaging on our website.](#) →

In transporting milk, yoghurt and other products, we use recyclable plastic milk crates, dollies and trays that are used about 40.7 million times in a year. This way we avoid using the same amount of single-use cardboard boxes or units. We recycle the plastic units that have become worn out or damaged through use. In 2023, we used reusable wooden pallets about 1.2 million times.

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

Producer responsibility for packaging is a statutory obligation for businesses. A company with producer responsibility is obligated to arrange collection and recycling of its packaging waste in its entirety and to bear responsibility for the costs of this. We fulfil this statutory obligation through our agreement with Rinki Oy and through Finnish Packaging Producers Ltd (SPT Oy), a producer organisation established in 2021 and partly owned by Valio.





**WE ARE PREPARING FOR MORE PACKAGING REGULATIONS**

The increasing volume of single-use plastic and packaging material and the environmental pollution caused by packaging material is a global problem. The EU is drafting additional new legislation to tackle this problem. The changes will significantly impact also Valio's operations in the future.

In 2023, we prepared for the new requirements of the EU's Single Use Plastics Directive 2019/904/EU. In one of our biggest projects, we are implementing the directive requirement that the cap on beverage containers of up to three litres must remain attached to the container. We are taking the new kind of caps into use in phases. The first containers with tethered caps were rolled out to stores in early 2023. By summer 2024, the caps on the rest of our packaging covered by the directive will remain tethered to beverage containers. Read more about tethered caps on our website.

In October 2023, we signed a Green Deal agreement with the Ministry of the Environment and other industry operators to reduce the use of plastic single-use, single-serving packaging. In the agreement, Valio commits to reduce the amount of plastic used in SUP, single-serving packaging by 15 per cent by the end of 2026 (base year 2022). This will result in an annual reduction of

143 tonnes of plastic. Read more about Valio's Green Deal agreement on the website: Green Deal agreements – Commitment 2050.

We are preparing for the future, in line with the Directive on Packaging and Packaging Waste proposed by the EU Commission in November 2022. The aim of the Directive is to harmonise packaging-related legislation in the EU, and to:

- prevent the generation of packaging waste by limiting unnecessary packaging
- increase the reuse of packaging
- strengthen the circular economy
- reduce the consumption of natural resources
- create a functioning market for recycled raw materials in the EU

During 2023, together with other industry operators and stakeholders, we have been actively communicating the opportunities and challenges related to the proposed content of the directive to policymakers in Finland and Europe. Valio's own packaging-related commitments and ambitious targets are already well aligned with the new proposed directive. We will revise our own targets, if necessary, once the directive enters into force.

The directive is expected to enter into force before summer 2024.







## Customers are requiring emissions reductions in logistics

By carefully planning and anticipating their orders and increasing the load size of their deliveries, our customers can impact logistics and thus the emissions of their own value chain. During 2023, we engaged in several joint projects with our customers to measure and reduce CO<sub>2</sub> emissions from logistics. We work with customers to plan delivery dates that suit them so that the emissions from their operations are as low as possible.

## Our logistics efficiency reduces emissions

**IN LOGISTICS**, our most important goal is to maintain cost efficiency and customer satisfaction, through which we impact the milk return. We optimise milk collection and delivery routes, and we aim to avoid unnecessary driving and drive fully loaded trucks.

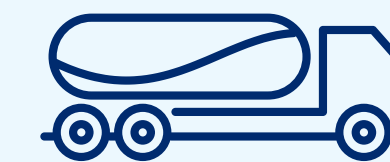
We distribute about one fifth of Finland's temperature-controlled food every year. Valio's joint distribution with other companies reduces the environmental load of product distribution and decreases the number of kilometres driven. Product distribution in Finland is handled by 125 transport entrepreneurs and 226 delivery trucks. Valio's own personnel plans the distribution routes, ensuring that the fleet is used efficiently and the customers' needs are taken into consideration. In 2023, domestic distribution made some 1.8 million customer visits, which means around 6,500 customer encounters per day.

Milk collection from dairy farms in Finland is carried out by some 42 subcontractors and 66 trucks. On average, the trucks were on the road for more than 20 hours per day, every day, in 2023. The average age of the collection fleet is about two years. All the trucks meet the latest EURO 6 emissions standards. We verify the EURO emissions rating of the vehicles used when we choose our partners. The size of the trucks used is increased to increase the load sizes and to reduce emissions. The number of routes driven decreased by 6 per cent in 2023, and 478,000 fewer kilometres driven by the milk collection trucks than in the previous year.

### Key logistics figures in Finland:

MILK'S AVERAGE DISTANCE FROM FARM TO DAIRY

**78 km**



MILK'S AVERAGE DISTANCE FROM DAIRY TO GROCERY STORE

**88 km**

DELIVERY RELIABILITY OF PRODUCTS TO OUR CUSTOMERS

**98.3%**

**50**

OVERSEAS SHIPPING CONTAINERS AND

**100**

TRUCK CONTAINERS EXPORTED EVERY WEEK

EXPORTS FROM FINLAND TO

**53**

COUNTRIES

ABOUT

**96%**

OF EXPORT CONTAINERS WERE FULLY LOADED



**CASE****Truck transportations fossil-free to Sweden**

Since August 2023, all consumer goods to Valio Sweden have been transported by trucks powered by fossil-free fuel (HVO biofuel). This will reduce carbon dioxide emissions as much as 89% (3,400 CO<sub>2</sub> tn) in a year, from current road transport emissions.

\*Estimates are done by DB Schenker (Dec. 2022), based on shipment data from Finland to Sweden 01.12.2021–30.11.2022.

**BIOGAS IS CONTRIBUTING TO CARBON NEUTRALITY OF ROAD TRANSPORTS**

Biogas is a renewable fuel. Its use in transport is the circular economy at its best. Using biogas can reduce greenhouse gas emissions from transport by as much as 85 per cent compared to fossil fuels.

In the case of milk collection, five biogas-powered vehicles drove some 1.23 million kilometres in 2023. This reduced CO<sub>2</sub> emissions from milk collection by around 750 CO<sub>2</sub> tn per year compared to fossil fuels.

In 2023, we had three biogas-powered vehicles in our distribution fleet. The number of vehicles is expected to increase each year as the refuelling infrastructure develops.





# VITALITY OF DAIRY FARMS AND ANIMAL WELFARE

The vitality of dairy farms is built on animal welfare and the wellbeing of people and the environment. Competent and healthy dairy farmers are able to take good care of their herds and develop their business in a changing world. Our business operations support the vitality of Finnish dairy farms and promote employment throughout Finland. We offer expert services to help our owners develop their business, improve animal welfare and ensure high milk quality.

## Valio dairy farms provide employment throughout Finland

**PURCHASING VALIO PRODUCTS** promotes employment throughout Finland. Dairy farms employ veterinarians, relief workers, experts, feed producers, agricultural equipment service technicians and manufacturers, transport and construction contractors, and others. We offer our owners a range of services to improve animal welfare and ensure high quality milk.

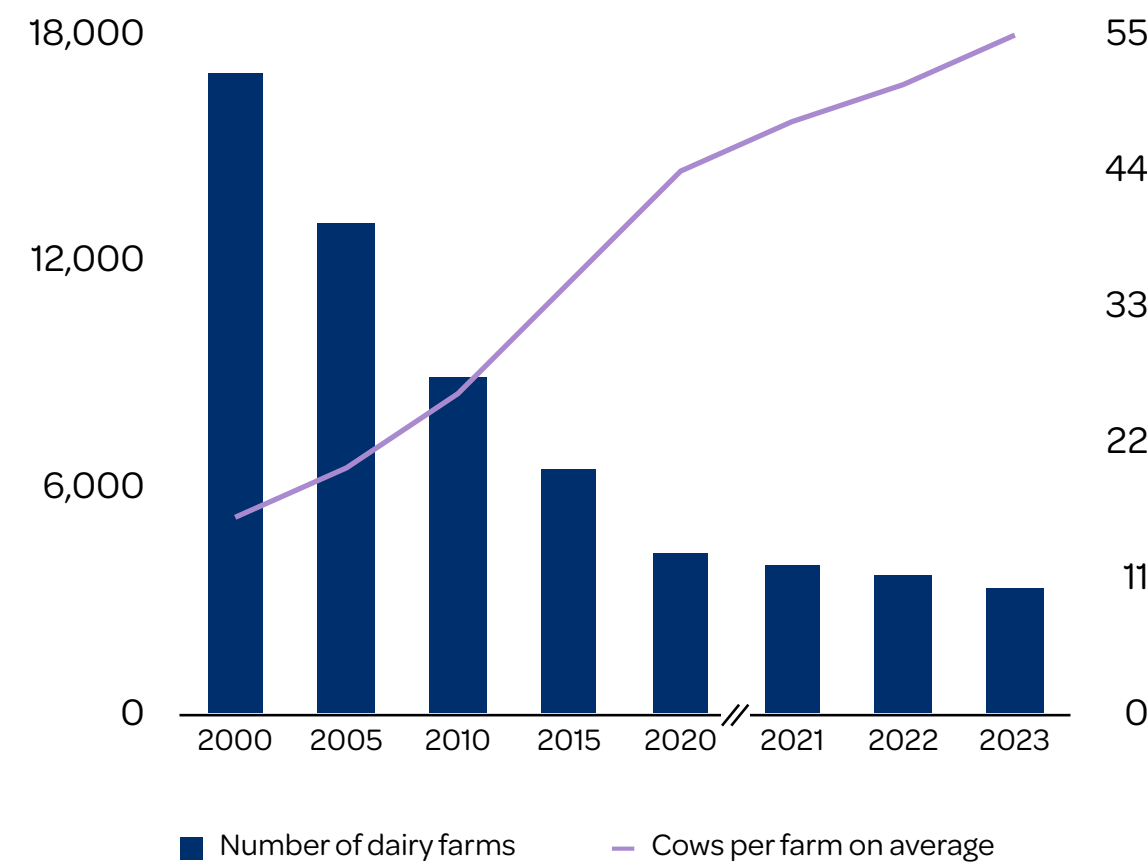
There were some 3,400 Valio farms in 2023, i.e. about 300 fewer than in 2022. There were 81 organic producers in 2023, i.e. about 20 fewer than in 2022. Dairy farm size has increased as the number of farms has decreased because the discontinuing farms are often small in size. In 2023, the average number of cows per dairy farm throughout the country was 55. Finnish farms are relatively small. The ICAR organisation's statistics show that the average number of cows per herd in 2022 was over 240 in Denmark and 109 in Sweden.

Valio dairy farmers produce about 80 per cent of Finnish milk. The vitality of dairy farms and their ability to continue operating in different situations is important for safeguarding domestic food production.





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



**WE SECURE THE LIVELIHOODS OF DAIRY FARMERS**

Valio aims to secure the livelihood of its owner entrepreneurs and opportunities to succeed as dairy farmers. We aim to secure the medium- and long-term future of Valio dairy farms and to ensure that milk production, which is particularly well suited for Finnish natural conditions, remains robust in Finland. By conducting business responsibly, we earn the best possible milk return for the milk collected from dairy farms. Additionally, we offer our owner entrepreneurs with high-quality expert services to support sustainable and evolving dairy farming as well as the professional skills and wellbeing of the owner entrepreneurs.

The vitality of dairy farms is built on animal welfare and the wellbeing of people and the environment. Because the different aspects of dairy farm vitality are strongly interlinked, we aim to improve the vitality of dairy farms by identifying and implementing measures that synergistically promote all the aspects.

Valio has a key impact on the profitability of dairy farms, since the dairy farm entrepreneur faces a market driven by demand through Valio. Sales revenue from milk makes up the majority of a Valio dairy farm’s net sales. Dairy farmers can influence production volumes and improve unit costs through their own actions, but they have no influence on the added value of the milk and thus on the milk price.

Valio’s basic mission is to create the best possible milk return\* for the milk collected from dairy farms. This is achieved by generating the highest possible net sales from every litre of milk collected from dairy farms in a cost-effective way that respects the wellbeing of people, animals and the environment. The key measures to achieving this goal include reducing waste throughout

the production chain and increasing the added value of milk in a cost-effective way.

We received 1,664 million litres of raw milk in Finland in 2023, which is 18 million litres less than in the previous year. The average price paid to the cooperatives was 53.7 cents (2022: 52.1 c/l) per milk litre. We paid the cooperatives a total of EUR 902 million (2022: EUR 883 million), comprising the raw milk price, dividends and interest.

**PRIMARY PRODUCTION’S SUSTAINABILITY PROGRAMME UPDATED**

Since the beginning of 2018, Valio has paid a sustainability bonus to those farms that commit to voluntary actions improving animal welfare. As of the beginning of 2021, all Valio dairy farms are within the sphere of the sustainability bonus and receive a sustainability bonus of two cents per milk litre they produce. Receiving the sustainability bonus requires the following:

- The farm is included in Naseva, the Centralised Health Care Register for Finnish Cattle Herds, and a veterinarian makes a herd healthcare visit to the farm at least once a year. Many of the farms are visited by a veterinarian more frequently.

- Hoof health is monitored, and hooves are treated regularly.
- Anaesthetics, pain relief and sedation are used in disbudding, i.e. the removal of a calf’s horn buds.
- New barns are freestall barns where cows can move about freely.
- Feed is soy-free and GMO-free.

Primary production’s sustainability programme was updated in 2023. The update introduced new voluntary actions in addition to the previous actions that applied to everyone. There is a choice of actions to promote animal welfare and biodiversity and to reduce the climate impact of dairy production. A sustainability bonus of up to one cent per milk litre will be paid for the voluntary actions.

86% of Valio dairy farms committed to voluntary sustainability work. Among the most popular choices were actions related to livestock grazing and outdoor exercise, the Valio Carbo® Farm calculator, carbon farming methods, biodiversity and carbon farming training.

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

Year	Amount
2000	101
2005	133
2010	106
2015	127
2020	113
2021	111
2022	101
2023	81



$$*Milk\ return = \frac{(Milk\ margin - the\ need\ for\ depreciation\ of\ fixed\ assets,\ i.e.\ financing\ requirement\ for\ investments)}{Milk\ volume\ supplied\ by\ the\ owners}$$

$$Milk\ margin = Net\ sales\ less\ other\ costs,\ excluding\ depreciation\ and\ the\ price\ paid\ to\ owners\ for\ raw\ milk\ and\ interest\ on\ shareholder\ loans$$



## Voluntary actions 1.5.2023–30.4.2024

### Animal grazing and access to outdoor activity

- Grazing, outdoor exercise, outdoor access in winter for different groups of animals

### Measures to support biodiversity

- Biodiversity area: Cultivation of crops that benefit agrobiodiversity, in particular those suitable for pollinators
- Environmental agreements: The entrepreneur manages a contract area (e.g. traditional biotope, natural pasture, field border of high natural value in terms of biodiversity or landscape importance) in accordance with an environmental contract, or the farm is part of the Helmi Habitats Programme.

### Reducing the carbon footprint

- Using and updating Valio Carbo® Farm calculator reporting
- Completing carbon farming training
- Using carbon farming practices in the farm's production of feed

The key to the sustainability bonus actions is that they go beyond legislative requirements. The new Animal Welfare Act entered into force at the beginning of 2024, and some of the requirements of primary production's sustainability programme became requirements of the Act. As a result, the sustainability programme will be updated again from 1.5.2024. The update will increase the emphasis on voluntary actions and will also include new actions that can be selected.

## We promote animal welfare at dairy farms

**ANIMAL WELFARE** is the foundation of our operations. Valio is a company owned by dairy farmers; for them, taking care of animals is their daily work.

### **WELFARE OF COWS IS SYSTEMATICALLY MONITORED AT VALIO DAIRY FARMS**

Animal welfare is an animal's experience of its own mental and physical state. (Source: the Finnish Farm Animal Welfare Council, 2019.) [Read more on the Finnish Centre for Animal Welfare \(EHK\) website.](#) → Good health, nutritious feed and a habitat that allows for species-specific behaviour are important parts in the welfare of cattle. Valio farms want to ensure a good life for calves, youngstock and cows and to satisfy their basic needs and provide opportunities for positive experiences.





## How is animal welfare assessed during Naseva health care visit?

During a health care visit, the veterinarian assesses farm's conditions and practices

All Valio dairy farms belong to Naseva, the Centralised Health Care Register for Finnish Cattle Herds, in which the welfare of cows is monitored and promoted systematically. In addition to welfare information, Naseva collects information on farm practices for animal care and protection against infectious diseases, as well as information on medications and results of laboratory analyses. **Naseva** is administered by Animal Health ETT; see their website for more information about the system.

In addition to belonging to Naseva, regular visits by a veterinarian are basic requirements for Valio milk production. During the annual health visit to each of our farms, the veterinarian assesses all aspects of animal welfare, such as feeding, conditions, health and behaviour. At the same time, the veterinarian and the farmer together draw up a healthcare plan, i.e. an action plan to improve the health and welfare of the herd. Additionally, a veterinarian visits the farm whenever necessary, for instance due to the acute illness of an animal.

Naseva received ISO 9001 certification in June 2021. The assessment was carried out by Kiwa Inspecta, the certification body in Finland. The certificate tells consumers that Naseva dairy and meat farms are working systematically to promote animal health and welfare and food safety.

### GOOD REARING ENVIRONMENT / CONDITIONS

- Clean and dry animals
- Barn air quality and temperature
- Space available per animal
- Space available for resting
- Comfort, softness, dryness and cleanliness of resting area
- Calving space size, hygiene and amount of bedding
- Are barn passageways slippery
- Grazing opportunities: Which animal groups are allowed to graze
- Exercise, can animals use an exercise pen
- Are cows or heifers tethered (stanchion barn) or not
- Are there any structures restricting movement in the barn

### GOOD FEEDING

- Cattle feeding: assessment of the quality and quantity of feed used, and the nutritional status of animals
- Sufficiency of water supply
- Sufficiency and method of milk feeding for calves

### BEHAVIOUR

- Behaviour of the animal group towards each other, herd dynamics. Are animals peaceful or aggressive with each other
- Human-animal relationship, how trusting the animals are of an approaching human
- Disturbed behaviour, does it exist
- Animal handling: how well animals are handled so that transfers etc. do not cause fear
- Handling facility and equipment: availability of movable fences or other equipment

### GOOD HEALTH

- General condition of animals, health condition, coat shine
- Growth of calves
- Udder health, incidents of mastitis and number of treatments
- Limping, in what proportion of the cows is it present
- Skin and joint lesions, are they present and on what proportion of the animals
- Pain relief practices in disbudding of calves
- Monitoring of mortality by age group; what proportion of animals died or had to be euthanised due to illness
- Sufficient hoof care and hoof care practices
- Information on the occurrence of infectious diseases nationally
- Disease protection at the farm level
- Study results about animal health status
- Use of pharmaceuticals monitored





**WE ARE DEVELOPING A NEW METHOD FOR ASSESSING ANIMAL WELFARE**

Natural Resources Institute Finland, Valio Ltd, Atria, HKScan, Snellman, and Animal Health ETT are developing a completely new set of indicators to assess the welfare of dairy farm cattle. The indicators developed for dairy farms in the Naseva Welfare Assessment of Cattle project will be widely tested, a similar method will be created for beef farms, and building a statistical model for the overall assessment of welfare will begin.

The aim is for a cattle welfare assessment method that is as modern, transparent and easy to understand as possible, is scientifically valid, reliable and reproducible, and whose data can be included in the Naseva system in the future. The assessment method will be published not only nationally but also internationally as peer-reviewed scientific articles and seminar presentations. [Read more about the project in the Maito ja me magazine article.](#) →

**ANTIBIOTICS ARE USED AT OUR FARMS ONLY WHEN NECESSARY**

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. Good practices for medication are described in the Valio production guidelines.

When a cow is treated with antibiotics, a waiting period follows during which its milk cannot be used as a food product. After the waiting period, we ensure the purity of the milk by testing for antibiotic residues before milking into the farm tank. The milk is tested for antibiotic residues at least three times: first on the farm, then on all milk loads at the dairy before the milk is unloaded and, finally, before the milk is sent to production. These measures ensure that no antibiotic residues are present in the products.

In 2023, we introduced a new rapid antibiotic residue testing method for use on dairy farms. By improving the identification of antibiotic residues at the beginning of the production chain, we are reducing the waste caused by quality deviations.

**COWS MOVE FREELY IN FREESTALL BARN**

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 50 per cent of the barns at Valio farms are freestall barns, and about 75 per cent of the cows live in them.

In a tie stall barn, cows have their own stall where they eat, drink and rest – and also milked. Tie stall barns are gradually disappearing, as most of the dairy farms that are discontinuing – particularly the smaller farms – are farms with tie stall barns. A legislative requirement that new barns must be freestall barns is contributing to the decreasing number of tie stall barns. About 25 per cent of all the milk supplied to Valio is produced in tie stall barns.

About 70 per cent of dairy farms have cows and heifers grazing for at least three months and for at least six hours per day. Additionally, cattle at some of the farms move about in exercise yards during summer. About 20 per cent of the dairy farms provide year-round outdoor





access. At Valio's organic dairy farms, all animals graze on grass and live in freestall barns. [Read more about different types of barns and outdoor access for cows on our website.](#) →

### **FARM SUPPORT AND VISITS SAFEGUARD 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 about 20 experts that work in the cooperatives. Valio's laboratory services produce data on feed and milk quality, analyse milk yield monitoring and mastitis samples, and perform gestation testing 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, etc. Valio and the cooperatives also arrange a variety of training courses for dairy farmers and dairy farm workers. [Read more about farm support services on our website.](#) →

We aim to audit 20 per cent of our farms each year. In 2023, we audited 21 per cent (2022: 21%) of the farms. During the 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 how to correct it. In more serious cases, milk collection is suspended until the shortcomings have been corrected. An expert from the cooperative will also visit the farm if there is a drop in the milk quality or a disruption in milk production.

We are constantly developing our collaboration also with healthcare and supervisory veterinarians. In addition to our own audits, a veterinarian makes an annual Naseva-compliant visit to every farm and documents the findings of the visit in the system. Additionally, a veterinarian visits the farms whenever necessary, for instance due to the acute illness of an animal.

### **WE PRODUCE INFORMATION TO SUPPORT DAY-TO-DAY WELFARE EFFORTS AT FARMS**

We continuously participate in research and development projects that seek to improve the health and welfare of cows and calves. During 2023, we participated in projects led by the University of Helsinki Faculty of Veterinary Medicine, the Finnish Food Authority and Natural Resources Institute Finland, which explored the best practical methods for measuring welfare, promoting calf health and immunity, promoting cow and calf welfare through weaning, prevention and risk management of infectious diseases on cattle farms, and good grazing practices. The projects result in scientific research publications and practical instructions, guides and calculators to help dairy farmers and their partners maintain and improve the welfare of their livestock.

To share the latest information, we regularly organise webinars on animal health and welfare for veterinarians, production experts and dairy farmers. In 2023, we organised a series of webinars on topics such as hoof health and the updated livestock SimValiokarja calculator simulating the economic impact of livestock health. In 2023, we also updated the Maito ja me online magazine's [mastitis microbe fact pages](#) with the latest research data.







# RESPONSIBLY PRODUCED, HEALTHY PRODUCTS

We are committed to the delivery reliability of food and food security. We use high-quality and sustainably produced raw materials. Responsibly produced, safe food is one of our sustainability focus areas. We develop products and recipes that improve nutrition, wellbeing and health. We provide nutrition information for home and professional kitchens, and we market our products in a responsible way.

## We are committed to delivery reliability and food security

**IN FINLAND,** we are developing sustainable food production that takes into account environmental issues, biodiversity, and local security of supply and food safety. The production conditions in which crops naturally thrive are important factors to consider in food production. For example, milk production plays a key role in food production in cooler and more humid regions of the world. In the northern climate, grass, the most important food source for cows, grows more abundantly and reliably than many food crops. In addition, perennial grasses sequester carbon in the soil.





**WE ARE MEETING THE NEEDS OF THE FUTURE FOOD SYSTEM**

As the global population grows, the need for food is increasing. For example, according to the World Resources Institute (WRI), the demand for food will double by 2050 compared to 2020. The world will need sustainably produced milk and meat, plant-based food and new innovations in cellular agriculture. Valio's business is responding to all these needs and thus to the changing world.

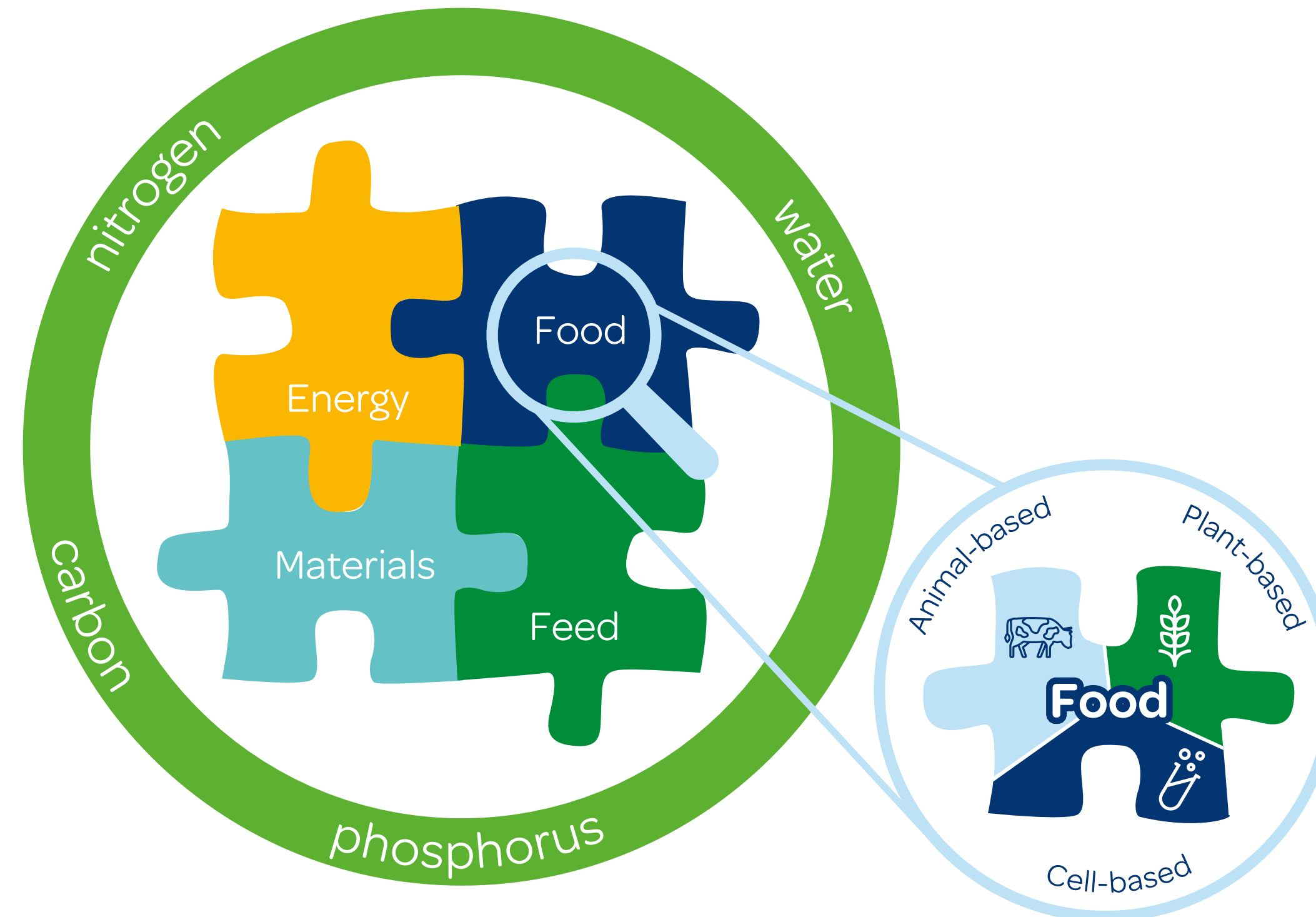
In our view, the food system of the future is a whole that includes not only food, but also energy generated alongside production, animal feed and, for example, fibre materials that can be used in clothing in the clothing industry, for example. At the same time, nutrients such as nitrogen and phosphorus, as well as water and carbon are circulated between the different parts of the food system. This reduces the need for virgin fossil raw materials and extractive fertilisers.

Plant-based, animal-based and cell-based foods are interlinked in the food system. For example, animal farms provide circular fertilisers for crop production and crop byproducts provide feed for animals. If you take away one piece of this system, it impacts the other parts of the whole.

**OUR DELIVERY RELIABILITY REMAINED AT A HIGH LEVEL DESPITE THE CHALLENGES**

Production challenges and supply problems with some raw materials made 2023 a demanding year in terms of delivery reliability. For example, the availability of oranges used in orange juice was affected by weather events

and plant diseases. The war in Ukraine also continues to affect supply chains and the availability of raw materials and packaging materials in many ways, especially within Europe. Domestic delivery reliability remained at a high level (98.3%) but fell short of the 99.3 per cent target.





## We are continuously developing food safety

**FOOD SAFETY** is one of our key sustainability priorities. Its failure can have significant impacts on consumer safety, so ensuring it is critical from a business perspective.

Our operations are guided by Valio's food safety and quality policy. We continuously strive for better food safety management in all our operations and products. Our food safety targets include, e.g., the continuous reduction of foreign objects and other product defects that lead to recalls.

Valio has in place a well-defined process and responsibilities for recall situations. In 2023, there were a total of six (2022: 11) recalls globally. This figure does not include the Valio Aimo® procurement portfolio. One recall was publicly reported due to a microbiological quality deviation. Other recalls were carried out from our customers, for example due to incorrect packaging.

We maintain and develop the management of food safety in compliance with FSSC 22000 and BRC requirements. Our plant certifications can be accessed on [our website](#). Our plants carry out self-monitoring based on the HACCP (Hazard Analysis and Critical Control Points) system to identify and eliminate factors that could jeopardise consumer health and safety. Self-monitoring

covers the whole production process, from the receiving of packaging materials and raw materials to product, facility and process equipment monitoring, storage and transportation. With good traceability, we know what raw materials and packaging materials have been used in each batch of our own products and where each of our product batches has been sent. We provide more information about ensuring food safety on [our website](#).

During 2022–2023, we implemented a project to develop the food safety culture in Finland. The project was our most important food safety focus area, and it broadly took into account themes related to communication, training, remuneration and metrics. In 2023, we also conducted a survey on food safety culture at our headquarters and our factories in Finland and Estonia. In the coming years, we will focus on putting the development measures identified into practice and embedding them in our daily work. The measures include a new food safety and quality training programme for employees.

We are also continuing the foreign object project that we initiated in 2021. In 2023, we received less feedback than in the pre-project period, but the level increased slightly from 2022.







## Our products are made from clean and sustainably produced raw materials

**PURE 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. In addition to milk, we use many other raw materials. The quality and food safety of each raw material is ensured through a detailed raw material analysis and approved before the raw material is taken into use in production.

### **MILK QUALITY STILL AT THE HIGHEST LEVEL**

In 2023, the share of the best quality of milk (i.e. E-rated) from Valio farms was 97.3 per cent (2022: 97.8%). Only 0.001 per cent of the milk received the lowest quality rating, grade 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 each cow. In the daily quality verification of farm tank milk, temperature and one's own senses are important tools. Additionally, the farm monitors the milk's cell and bacterial counts and the milk composition analysis results of every

milk collection. At 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 residues of antimicrobial agents before it is pumped from the truck into the dairy's silo.

### **WE MANAGE SUSTAINABILITY RISKS RELATED TO RAW MATERIALS**

We have carried out an extensive assessment of the raw material-specific liability risks, and, based on the supply chain liability risks, we have identified the raw materials whose production involves a high level of globally recognised sustainability risks. These raw materials are mainly plant products from agricultural production or raw materials of animal origin. We systematically consider high-risk raw materials in the product development process and engage in cross-organisational collaboration related to them. Valio's responsible sourcing is discussed in more detail in the [supply chain section of this report](#).





**WE USE CERTIFIED COFFEE AND COCOA**

We cannot operate close to the primary production of the raw materials, but by purchasing certified raw materials we ensure that they are produced in accordance with sustainability principles. Of the certification schemes available, we have chosen Rainforest Alliance certification, as it is suitable for our needs and available in our supply chain. The Rainforest Alliance certificate granted to Valio allows us to manufacture Rainforest Alliance-certified products from certified coffee and cocoa raw materials at our plants in Jyväskylä, Suonenjoki, Turenki and Seinäjoki.

In 2023, we continued to advance our coffee and cocoa policies. We focused on developing the Rainforest Alliance certification process and systematising our raw material registration practices.

**SOY IN PLANT-BASED PRODUCTS**

Valio added soy protein as a possible raw material in plant-based Oddlygood® products due to its good nutritional, textural and taste properties. However, the cultivation of soybeans is associated with the risk of rainforest destruction. In line with our policy, soy must be of EU or North American origin so that the risk does not materialise. In May 2023, we introduced an Oddlygood® organic soy drink.

In autumn 2023, Oddlygood acquired the Planti product portfolio and brand, and Valio acquired Planti's production. Soy is used in products that came with the acquisition.

**Progress of raw materials policies**

	TARGET	PROGRESS 2023	2020	2021	2022	2023
PALM OIL	No palm oil in consumer products.	No palm oil in consumer products.	100%	100%	100%	100%
	Palm oil in industrial products verifiably certified.	No palm oil in industrial products.	0%	100%	100%	100%
SOY	No soy in consumer products (excl. Oddlygood®).	No soy in consumer products.	99%	100%	100%	100%
	The origin of the soy used in Oddlygood® products is Europe or North America and the soy is of non-GMO quality.	The origin of the soy used is North America.	100%	100%	100%	100%
	Soy is not used in animal feed in Finland.	No soy in animal feed.				100%
COCOA	Only certified cocoa is used.	Purchasing of certified cocoa continued.  Formula: Certified cocoa raw materials / all cocoa raw materials.	Finland 0%	Finland 3.6%	Finland 95%	Finland 99%
			Estonia 0%	Estonia 0%	Estonia 0%	Estonia 0%
	Cocoa is verifiably certified.	Thanks to the certification of factories, we were able to increase the share of consumer products containing certified cocoa to 59%.  Formula: Certified cocoa products, no. / all cocoa products, no. (consumer products).	Finland 0%	Finland 3.6%	Finland 10%	Finland 59%
		Estonia 0%	Estonia 0%	Estonia 0%	Estonia 0%	
COFFEE	Only certified coffee is used.	Purchasing of certified coffee continued.  Formula: Certified coffee raw materials / all coffee raw materials.	Finland 0%	Finland 0%	Finland 100%	Finland 100%
			Estonia 0%	Estonia 0%	Estonia 0%	Estonia 0%
	Coffee is verifiably certified.	Products include a new export product for 2023 that does not yet have certification information on the packaging. In addition, the total number of products containing coffee has decreased since 2022. For these reasons, the share of certified products has decreased. Coffee certification was expanded also to Turenki.  Formula: Certified coffee products, no. / all coffee products, no. (consumer products).	Finland 0%	Finland 0%	Finland 91%	Finland 72%
		Estonia 0%	Estonia 0%	Estonia 0%	Estonia 0%	



## CASE

### Investigation of supply chain responsibility in domestic wild berries continued

Valio mainly uses Finnish berries in its products. Following the late 2022 allegation of human trafficking linked to the harvesting wild berries and the criminal investigation into the working conditions of pickers that continued in 2023, we had to take a critical look at our domestic berry supply chain.

We want to continue to buy responsibly produced domestic wild berries from responsible partners, and we will not tolerate any human rights violations in our supply chain. As part of our responsible sourcing policy, if violations occur in the supply chain, we require the supplier to correct their actions rather than automatically cutting off cooperation.

In addition to legal compliance, we require our suppliers to commit to Valio's ethical principles, i.e. [Valio's Supplier and Distributor Code of Conduct](#). By committing to them, our suppliers are responsible for ensuring that the Code of Conduct is also followed in their own supply chains.

In summer 2023, we updated the procurement principles for domestic wild berries. In addition to the previous requirements, we require:

- a fair and reasonable minimum compensation for pickers,

- full transparency in the berry supply chain, including on intermediaries and the pickers' earning model,
- a guarantee of good working and living conditions, and
- training of pickers before the start of the picking season and anonymous feedback channels for pickers.

In 2023, we carried out several visits to the picking camps of our berry suppliers to inspect the conditions for the pickers and the condition and safety of their accommodations. Before the inspections, the berry-picking companies completed a sustainability questionnaire, the results of which were examined in practice at the camps. The results of the camp inspections have been reviewed with our berry suppliers, and we are actively monitoring the implementation of the agreed actions. We will continue the picking camp inspections also in the upcoming season in 2024.

In line with our updated procurement requirements, we carried out a sustainability audit of one of our berry suppliers in autumn 2023. It was the first social responsibility audit against Valio's requirements to assess the working conditions of berry pickers. The results of the



audit carried out by the certification company's auditor and an external human rights expert revealed that there are problems with the working conditions of berry pickers, primarily related to recruitment practices in the country of origin, high costs of entry to Finland and long working hours of the pickers. The problems identified are partly structural and concern the sector as a whole, not just individual operators.

Addressing the shortcomings identified requires long-term cooperation between the various actors involved: supervisory authorities, berry picking companies, NGOs and berry buyers. Valio wants to play an active role in creating conditions for sustainable berry picking and will participate in 2024 in a development project to achieve this together with the various actors in the wild berry value chain.





## We promote healthy lifestyles and good nutrition

**THE FOOD INDUSTRY** plays an important role in consumer welfare. Promoting healthy lifestyles is, in fact, one of our sustainability focus areas. We develop tasty and nutritious products, and we want to improve the nutritional quality of the diet by encouraging Finns to eat in line with nutritional recommendations.

### NUTRITION COMMITMENTS IMPROVE CONSUMER NUTRITION

A nutrition commitment is the National Nutrition Council of Finland's operating model that is part of Society's Commitment to Sustainable Development. Nutrition commitments are concrete, significant and measurable actions aiming to improve the nutritional quality of products or to establish nutritionally responsible practices.

The Nutrition Commitment Action Plan was launched in 2017. Since then, we have published ten targeted and measurable commitments. Public commitments are available on [the Commitment 2050 website](#).

In 2023, we made three new nutrition commitments. With these, we want to reduce the amount of sugar in consumers' diets and to make it easier to prepare healthier food in home kitchens.

1. We will reduce added sugar by 10–15 per cent in 40 per cent of the Gefilus® juices and berry soups by the end of 2023.

*We met the target and reduced the added sugar in five products by an average of 12 per cent. At the end of 2023, we had a total of nine berry- and fruit-based Gefilus® products in our portfolio.*

2. We will reduce added sugar by 5–10 per cent in the traditional, sugar-sweetened Valio berry soups and sugar-sweetened Valio Hedelmätarha® juices, as well as in glogg drinks by the end of 2024.

*Implementation of the commitment is well on track, with the possibility of reaching it during 2024.*

3. We will develop 10 Heart Symbol recipes for home kitchens by the end of 2023.

*We achieved our goal. Ten Heart Symbol recipes have been published on the [valio.fi -website](#).*

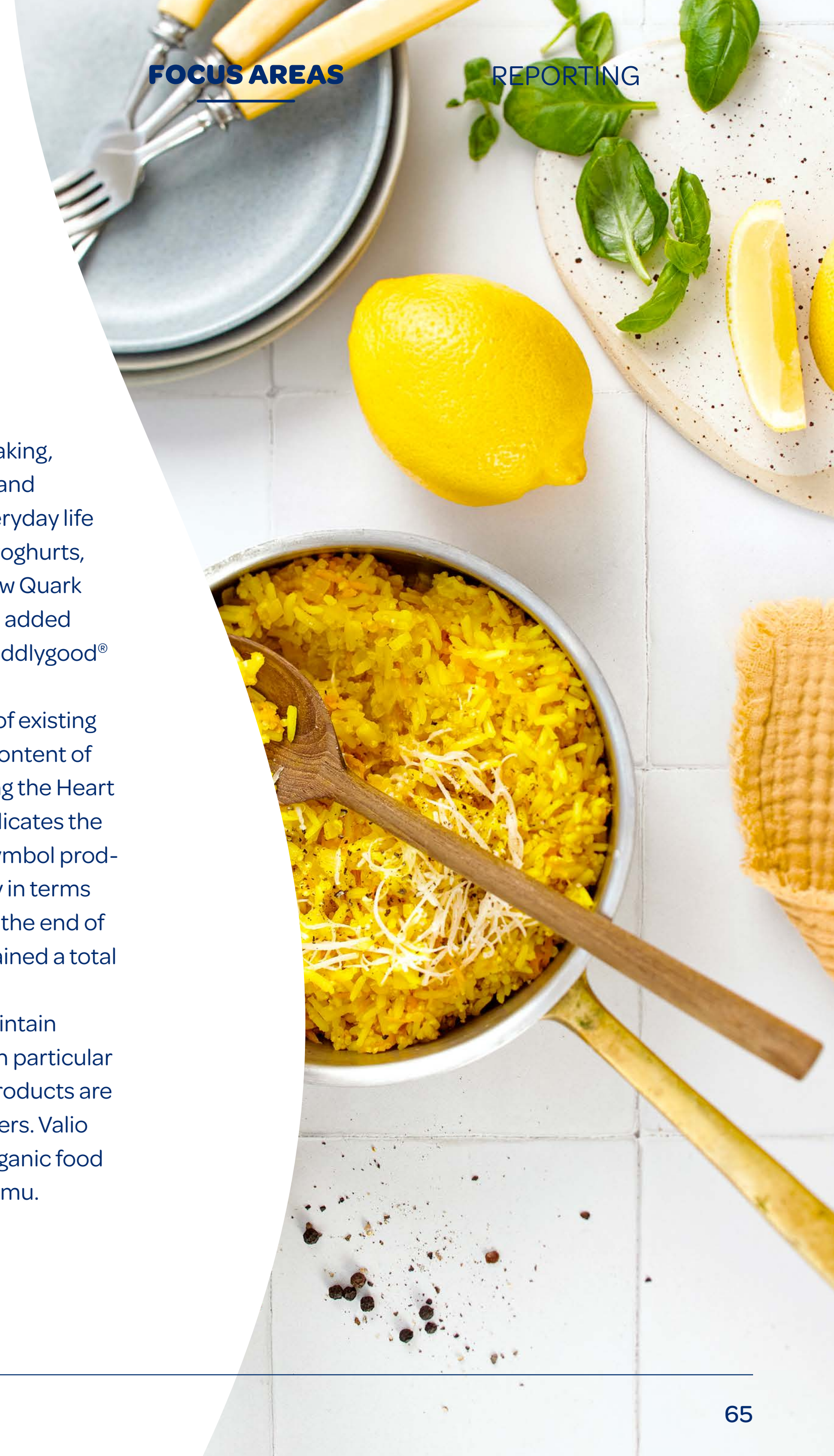
### WE OFFER PRODUCTS AND ORGANIC PRODUCTS THAT PROMOTE WELLNESS

Already during Nobel Laureate A.I. Virtanen's time as head of Valio's laboratory, the concept of improving well-being through innovation became our guiding principle. Valio's product development is based on listening to the consumer and customer, on tasty, nutritious products that make everyday life easier. We believe in the power of eating together. Cooking and baking are one of the most important ways to create shared moments and show caring and love. Immersing yourself in making things with your hands is also good for the mind.

In 2023, we developed new, innovative baking, cooking and snacking products – from milk and from plant-based ingredients – to make everyday life easier. We introduced Valio Gefilus® OLO™ yoghurts, Valio PROfeel® protein products, entirely new Quark & berry soup products, a berry soup with no added sugar, and plant-based Gold&Green® and Oddlygood® products.

We also improved the nutritional quality of existing products, for example by lowering the salt content of Valio Polar® original 15% products and adding the Heart Symbol label to them. The Heart Symbol indicates the nutritional quality of the product. A Heart Symbol product is a better choice in its product category in terms of fat quantity and quality, sugar and salt. At the end of 2023, our product portfolio in Finland contained a total of 138 Heart Symbol products.

Organic farming is an effective way to maintain biodiversity in agricultural areas, enriching in particular the vegetation and birdlife. Valio Luomu™ products are an easy pro-biodiversity choice for consumers. Valio is involved in the development of Finnish organic food chain by being an active member of Pro Luomu.







### **WE DEVELOP HEALTHIER RECIPES AND PROVIDE EXTENSIVE PRODUCT INFO**

[Valio.fi recipe search](#) is one of Finland's most popular food sites. The 5,000+ recipes on the site include information on the nutritional and salt content of the prepared dish, helping consumers to make choices that align with nutritional recommendations. We offer healthier alternative Heart Symbol recipes for home cooks. Not all professional kitchens have the opportunity to develop healthy recipes that meet nutritional recommendations, so we also offer Heart Symbol recipes for professional kitchens on [the Valio Aimo website](#).

Clear labelling on product packaging makes it easier for consumers to make choices when shopping. In all our markets, we offer online access to a wide range of information on product ingredients and nutritional values. [Valio.fi product search site](#) also has a filter feature to find product options that fit your dietary preferences (e.g. lactose-free, gluten-free, vegan, low fat). Clear and accurate information allows you to compare products and choose healthier alternatives.

## **We actively communicate about wellbeing and healthy lifestyles**

[The Valio.fi/hyvinvointi website](#) provides a wide range of information on nutrition and different diets based on Finnish dietary recommendations. Particular areas of focus include the plate model, eating habits and general nutrition. To support healthy lifestyles, the website also includes a range of calculators and tests, such as a calcium calculator and an exercise test.

We offer nutrition and health professionals the opportunity to subscribe to our Nutrition and Health newsletter, which contains information based on nutrition recommendations and practical examples of how to support holistic wellbeing and healthy lifestyles. From our online service, health professionals can also order free nutrition brochures that encourage a healthy lifestyle for different age groups. Valio's university-educated nutrition experts are responsible for the content of the brochures.

### **RESPONSIBLE MARKETING COMMUNICATIONS**

We are committed to the responsible marketing of our products, our services and our operations. Our marketing communications are expected to provide concrete, clear information about sustainability and our actions, as well as examples of how wellbeing and responsible lifestyles can be promoted.

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. We review the policy annually. The Marketing Policy is available on [our website](#).

For several years now, Valio has used marketing at the start of the school year in August to highlight the importance of looking out for young school children in traffic. In 2023, we sparked a discussion on responsibility with our partner, Finnish rap musician Paleface, who modernised Georg Malmstén and Helena Eeva's "Children's Traffic Song". The song was turned into a traffic song for adults, shifting responsibility for traffic safety from children to motorists.

We make extensive use of our packaging to promote sustainability and responsibility themes such as organic farming and its positive impact on the biodiversity, recyclability of our packaging and recycled materials. We also provide consumers with practical tips on packaging to reduce food waste. In 2023, we added the label "Best before, often good after" to our Valio sour milk packaging. With this label we want to encourage consumers to rely more on their own senses when assessing whether a product is still edible.





# PEOPLE'S WELLBEING

We are committed to respecting human rights across our value chain and we systematically promote human rights. People are an important asset for us, and we want to ensure a fair, equal, supportive, safe and healthy workplace for our personnel. We actively develop the competence and leadership of Valio employees.



## We respect human rights and labour rights

**VALIO IS COMMITTED** to respecting human rights across its value chain. Our ethical guidelines, i.e. the Code of Conduct (Our ways of working – One Valio), cover our Human Rights Policy and guide our personnel. Our requirements targeting the supply chain are described in the Supplier and Distributor Code of Conduct. [Read more about the Codes of Conduct on our website. →](#)





## 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 of the graphic shows the people who are indirectly impacted by Valio's own operations or its supply chain.

## We systematically promote human rights

**WE HAVE SYSTEMATICALLY IDENTIFIED** the human rights impacts of our operations and value chain. We reviewed and updated our impact assessment in spring 2023. At the end of 2023, we started extending the assessment of impacts also to the wholesale product range we purchase. The human rights impact assessment serves as the basis for Valio's materiality assessment, and the criteria used are in line with the requirements of the new European Sustainability Reporting Standards (ESRS). [Read more about Valio's materiality assessment and the material human rights impacts of the value chain.](#)

We manage and mitigate the human rights risks we identify, as part of our human rights due diligence process and the work of our social responsibility team. The findings of the human rights impact assessment are reflected in the long-term action plan for social responsibility. The plan is structured around the following topics, among others:

- the safety and wellbeing of employees,
- diversity and employer practices,
- safe and healthy products, and
- sustainability in the supply chain.

The measures set out in the plan are promoted in practice as part of the annual action plans of the organisations responsible for the topics. We have more information about Valio's due diligence process on human rights impacts on [our website](#).







# People are at the core of our strategy

**THE HEALTH, SAFETY AND WELLBEING** of Valio employees and those working in our supply chain are the foundation of our operations. In 2023, we continued to focus in particular on the development of coaching leadership and the coaching approach, as well as on mental wellbeing. Our personnel again did an excellent job of implementing the strategy and ensuring operational excellence in all the countries where Valio operates.

Every other month or so at the Valio Executive Board level, we discuss organisational and HR-related topics, such as workforce planning, future capabilities and remuneration.

## VALIO EMPLOYEES IMPLEMENTED THE STRATEGY WITH GOOD MOMENTUM

In 2023, we continued to implement the strategy. Valio Aimo® wholesale operations were strengthened through recruitment. We also continued to increase our expertise in the plant-based businesses. Plant-based brands include Gold&Green® and Oddlygood®. With the acquisition of Planti®, Valio Ltd gained one new production plant and 24 employees in Turku. We continued to develop Suomen Lantakaasu Oy's biogas business together with St1: Valio and St1 employees worked together to plan the joint venture's investments. We also continued to develop our product development, sales and production capabilities in value-added powders.

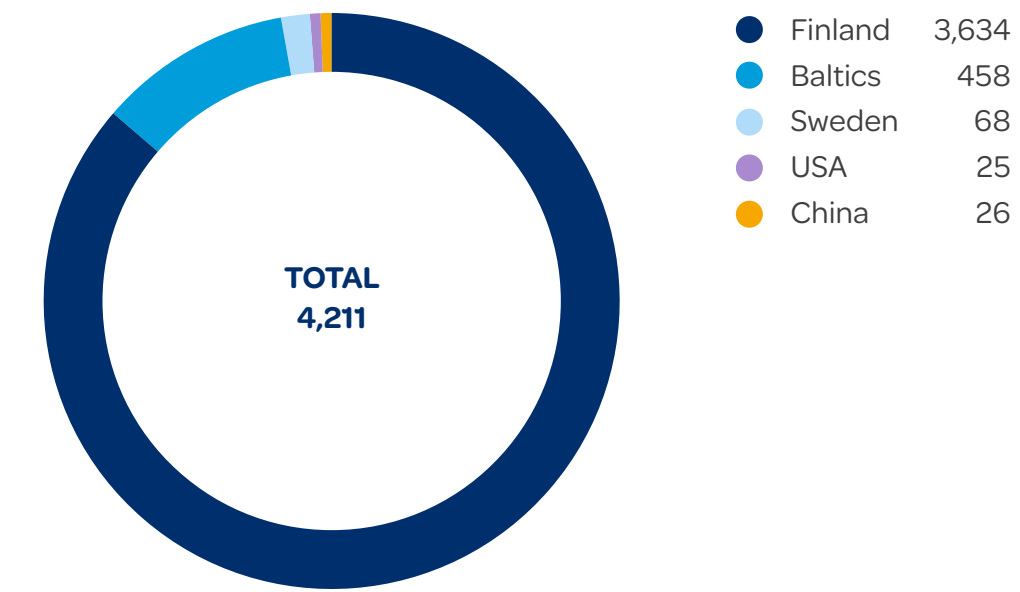
We continued the resourcing development project we launched in 2022 by examining what skills we want to keep in the hands of our employees in the longer term, where we can use more flexible means of resourcing, and what we can increasingly automate. The long-term aim is to ensure workforce availability, improve resource efficiency, help with prioritisation, and balance the workload of the organisation.

In 2023, we strengthened the strategic business skills of our employees through international coaching programmes that developed the strategic thinking, customer focus, performance management, innovation thinking and negotiation skills of more than one hundred key people. In 2024, the development of strategic competence areas will be continued by deepening the business insight and leadership skills.

We increased our understanding of strategy at the strategy and leadership forum, which brought together around 100 of Valio's key people from different countries. The aim was to strengthen their ability to lead strategy implementation and renewal.

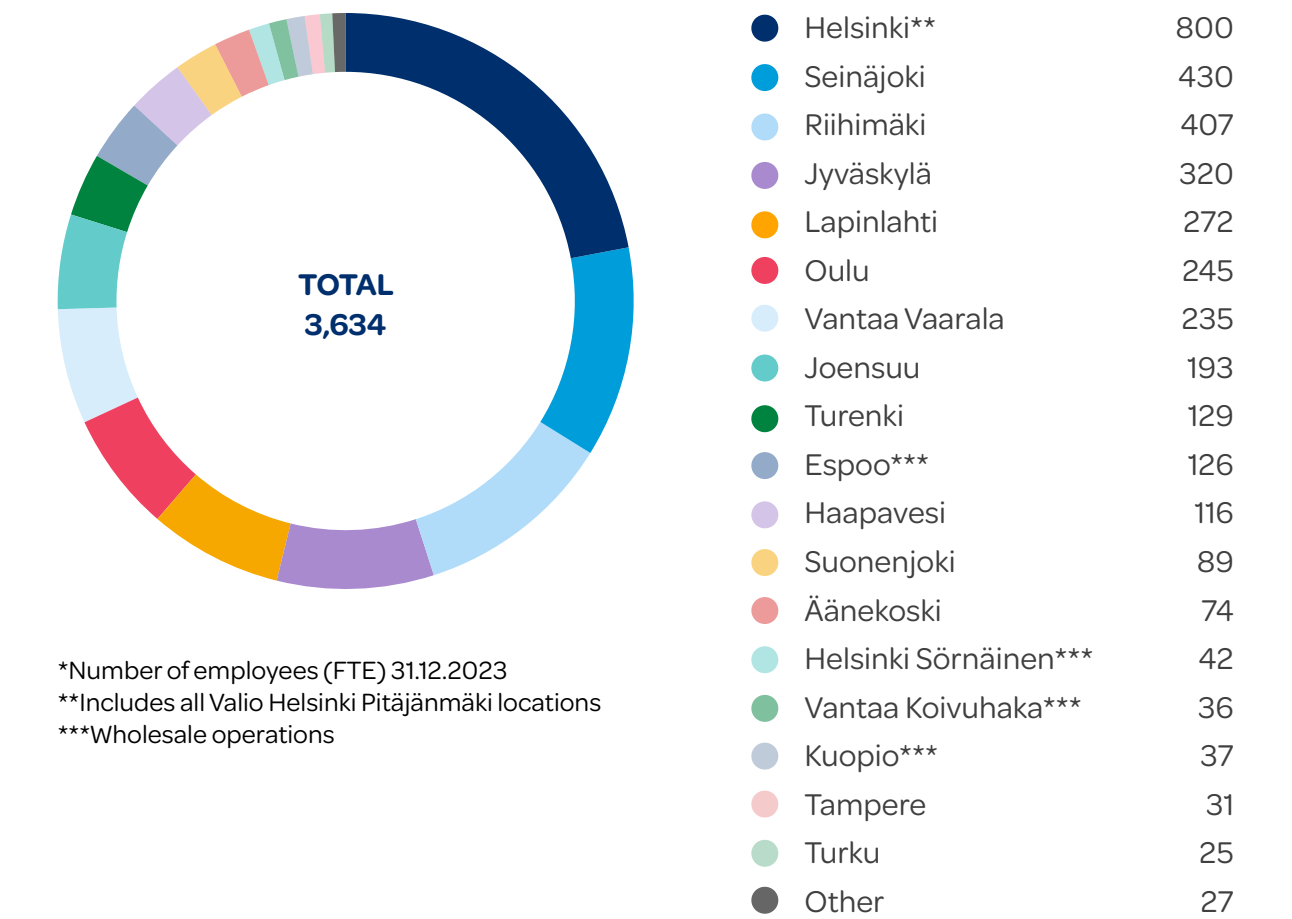
We continued to develop innovation leadership and to strengthen the innovation culture by running a Spark Tank idea accelerator for all personnel in Finland. The Spark Tank received 70 ideas from 11 sites; after eight weeks of intensive work, 20 of the ideas were advanced for further development. Our corporate culture has been built around innovation throughout Valio's history.

Number of employees by country



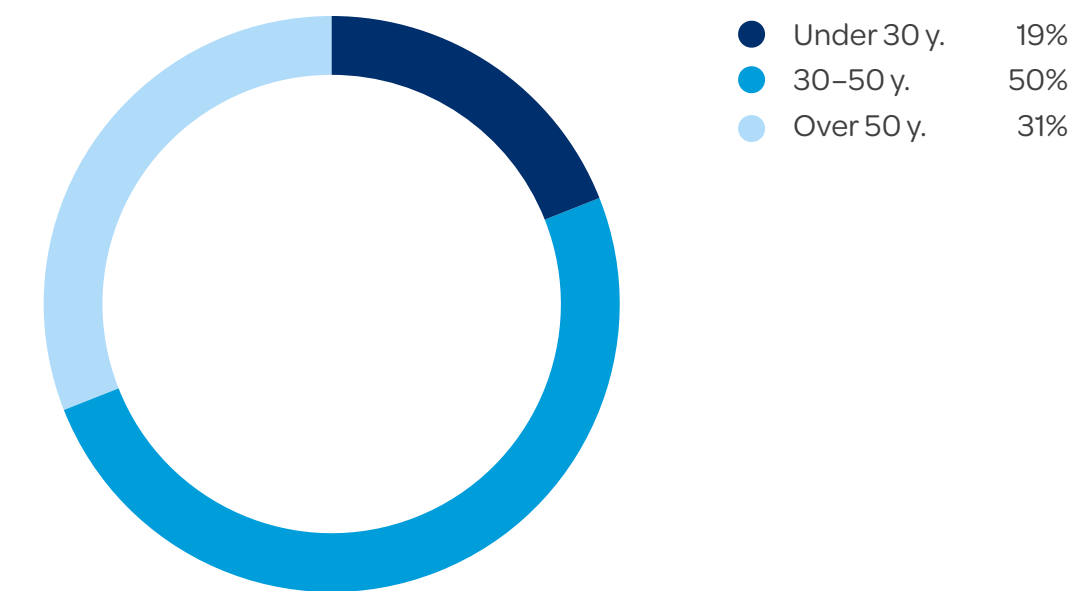
For Finland number of employees (FTE) 31.12.2023. For other countries, the number of employees (all employment relationships) 31.12.2023.

Number of employees by site in Finland\*



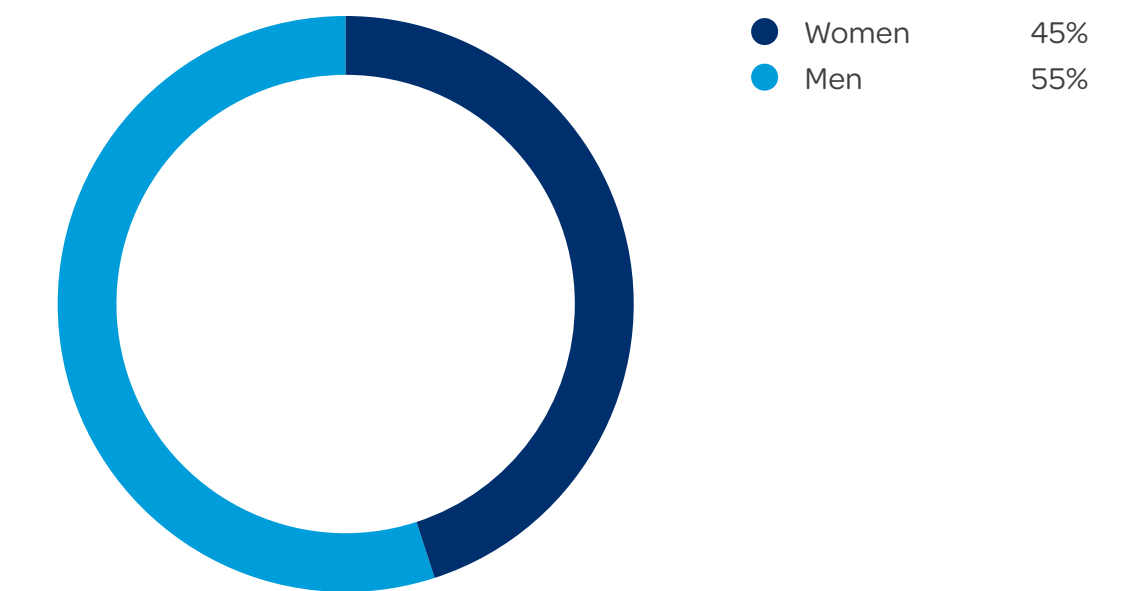
\*Number of employees (FTE) 31.12.2023  
\*\*Includes all Valio Helsinki Pitäjänmäki locations  
\*\*\*Wholesale operations

Personnel by age\*



\*Global 31.12.2023.

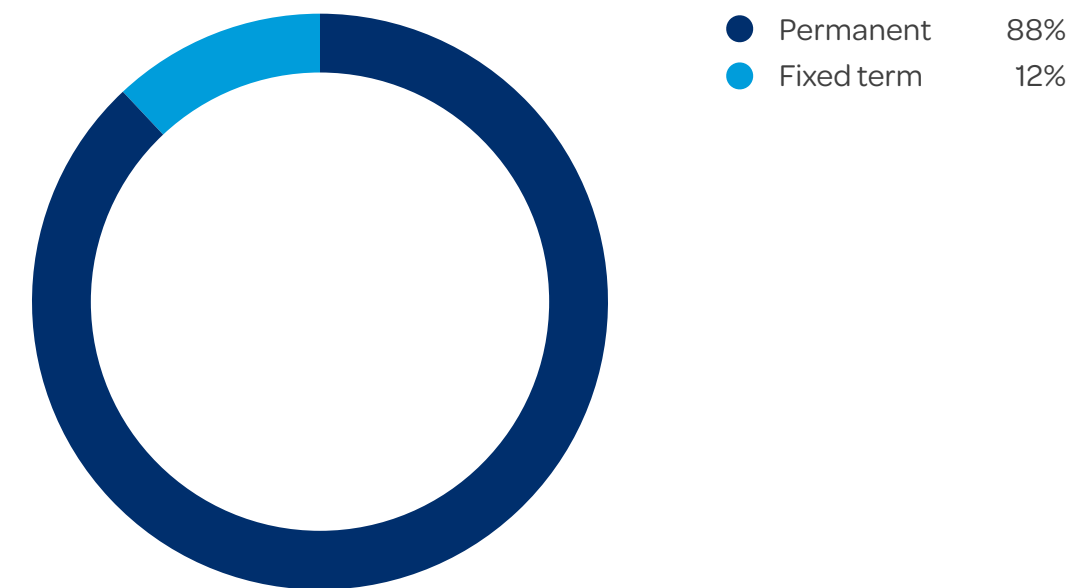
Personnel by gender\*



\*Global 31.12.2023.

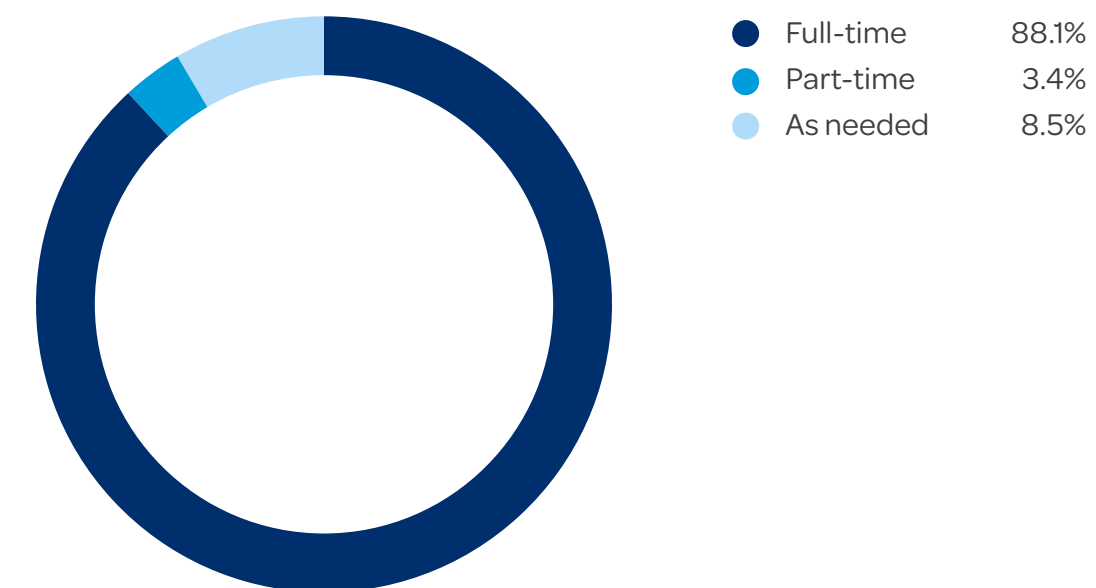


**Personnel by employment contract\***



\*Global 31.12.2023.

**Personnel by employment type\***



\*Personnel in Finland 31.12.2023.



**Rate of permanent employee turnover\***

**Turnover rate**

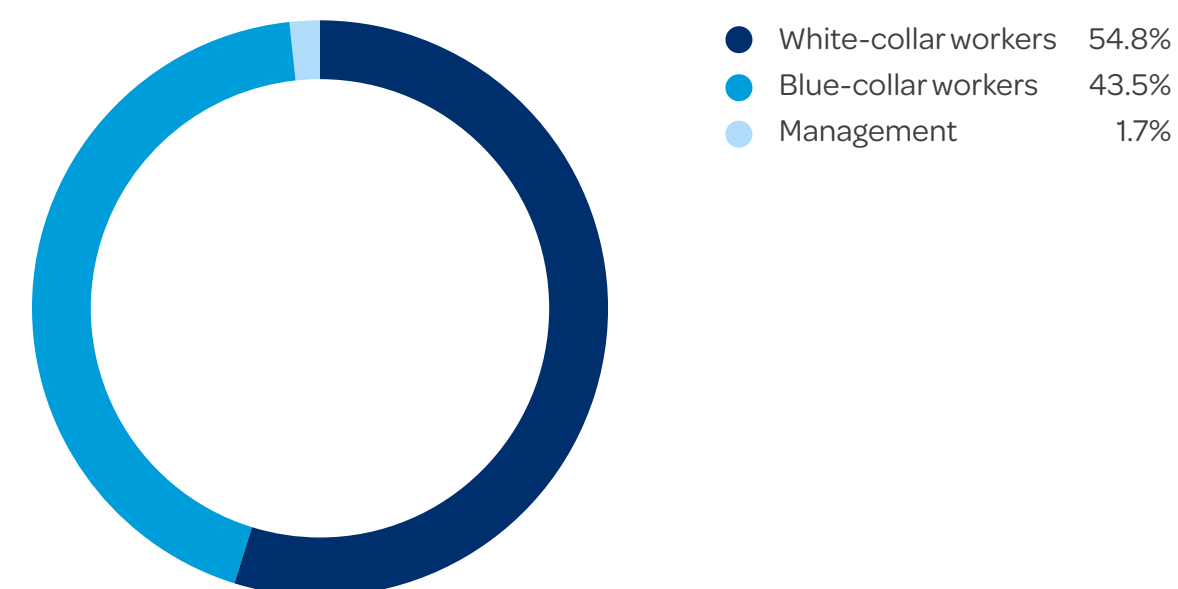
**3.5%**

**Men  
2.1%**

**Women  
1.4%**

\*Employees in Finland 31.12.2023  
Counting individuals who have resigned from a permanent post during the year / The number of permanent employees

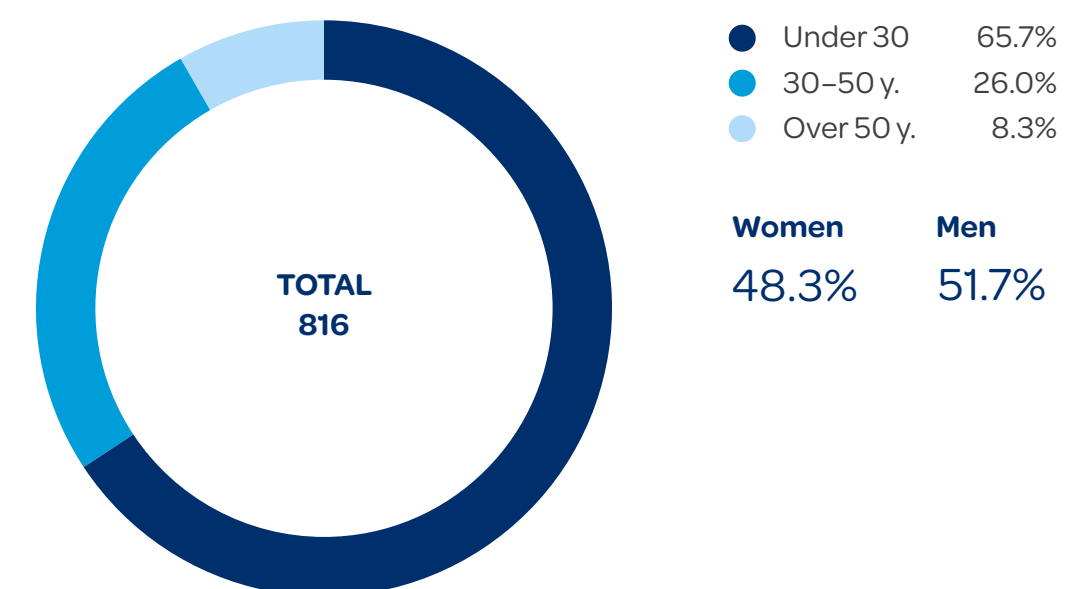
**Personnel by collective bargaining agreement\***



\*Personnel in Finland 31.12.2023.

**White-collar workers** = MVL clerical workers and salaried employees, Pro-clerical workers, Senior salaried employees, Commercial sector CBAs: warehouse and transportation supervisors and retail supervisors.  
**Blue-collar workers** = SEL dairy workers, Commercial sector CBA (incl. truck drivers).  
**Management agreement** = Management agreements.

**Total number of new hires by age and by gender\***



\*Personnel in Finland.  
Counting all new people who have started during the year.  
Figures include summer workers and interns.

**PUTTING STRATEGY INTO ACTION THROUGH PERFORMANCE AND DEVELOPMENT DISCUSSIONS**

Valio's strategy and business objectives are translated into practical action through day-to-day interaction and the performance and development discussions. All Valio's permanent employees are within the scope of the annual discussions. At production plants, in wholesales and warehouses, the discussions can also take the form of group discussions. The aim is to create a mutual understanding of how each employee's work contribution advances the implementation of the strategy.

According to the Valio Voice employee survey, most Valio people understand what is expected of them at work. The autumn 2023 employee pulse survey showed that employee confidence in our strategy moving us in the right direction, remained at an excellent level compared to international peer groups. This confidence is one of Valio's strengths.

**WE WANT TO ENSURE WORKFORCE AVAILABILITY**

The challenges of finding a skilled workforce have increased, especially in production and logistics. In Finland, the future availability of labour will be significantly affected by development trends in the working-age population and regional differences.

In 2023, we launched two pilot projects in Finland to develop models for employing foreign language speakers at Valio. We have made different language versions of our Code of Conduct and worked with employees and supervisors to find ways to ensure understanding on both sides in the daily work without compromising safety and operational quality. In the Häme Vocational Institute





SUJUVA project, we are working together to develop dairy sector education in foreign languages, and at the same time training eight workers with an immigrant background for production jobs in Vantaa. In partnership with Hyria, after a 10-week training period that included on-the-job training, we employed six people with a Ukrainian background for warehouse jobs in Riihimäki.

We also aim to improve the attractiveness of the industry by participating in recruitment events, strengthening cooperation with educational institutes at all educational levels and taking part in educational development projects in the sector. We offer around 350 summer jobs each year, providing work experience for dairy sector students or individuals considering the sector.

We are developing the employer image in Finland and in other countries, and we participate in local external surveys when needed. For two years in a row, Valio Sweden has been ranked among the top-ten best places to work in Sweden in a Universum survey in which companies are rated by their employees.

### WE ARE DEVELOPING THE COMPETENCIES AND LEADERSHIP CULTURE OF VALIO EMPLOYEES

Quality leadership and supervisory work are part of the Valio leadership promise. Our leadership culture is based on coaching leadership that is inclusive and supportive. The aim is to strengthen the psychologically safe working environment that enables insights, new ideas and solutions to be generated from within the workforce.

We are strengthening our culture of coaching leadership and work approach through a programme that started in 2022 with the management teams of our Finn-

ish production sites and will cover all Valio employees in all our countries of operation in 2023-2025. Through the coaching programme, we are introducing a more harmonised leadership and work approach and ways to assess, measure and develop a coaching approach. All new supervisors will continue to participate in the "Succeed as a supervisor" training that covers topics on coaching leadership, supporting wellbeing at work, and performance and competence management. We also ensure, for example by reviewing the content of the induction process, that every expert, white-collar and blue-collar employee at Valio receives the coaching leadership and work approach skills needed in their work also after the coaching programme has ended.

The aim of competence development at Valio is to ensure that the workforce has opportunities to develop their skills in their current positions and to prepare for changing competence needs. Job-specific competences and various qualifications provide a strong foundation of skills, especially in production, warehousing and wholesale operations. We encourage employees to actively develop their skills. In 2023, we continued using the online training platform Eduhouse to support continuous learning alongside work. The service gives every Valio employee the opportunity to develop skills that are important in work life, such as interpersonal, digital and technology skills. The service was rolled out to other Valio countries in 2023 and use of the service has increased dramatically. Valio employees participated in more than 1,000 virtual and online training sessions and in more than 2,200 hours of training in Eduhouse during 2023.

In autumn 2023, we launched a new annual model of common training courses to ensure that every Valio

### Target and development discussions\*

	EMPLOYEE COUNT (ACTIVE EMPLOYEES)	NO. OF PERFORMANCE AND DEVELOPMENT DISCUSSIONS HELD	DEVELOPMENT DISCUSSIONS HELD, PERCENTAGE OF TOTAL PERSONNEL
White-collar workers	2,461	2,175	88%

\* Regular performance and development discussions process covers all Valio employees globally. The reporting of held discussions covers all white-collar workers. The process, monitoring and reporting for the entire organization will be developed during 2024.

### Training hours by country\*

Country	NUMBER OF EMPLOYEES*	AVERAGE HOURS OF TRAINING / PERSON	TRAINING HOURS/ GENDER		TRAINING HOURS/ EMPLOYMENT	
			Female	Male	White collar	Blue collar
Finland	4,112	10.8	12.5	9.5	15.1	5.2
Sweden	68	21.5	17.0	25.0	21.5	-
Baltics	458	10.6	8.7	13.3	21.5	7.3
USA	25	35.0	27.0	62.0	35.0	-
China	26	45.7	50.8	34.3	45.7	-
<b>Total</b>	<b>4,689</b>					

\*Number of employees, all contract types 31.12.2023.

The average number of training hours varies substantially between Valio Finland and the subsidiaries. The differences are explained by the number of employees, as well as by the different training needs of the different markets. In the subsidiaries, training at the individual level has a big impact on the average.



employee has sufficient knowledge of current important topics, such as our Code of Conduct describing our way of operating. Upcoming training courses (including the topics and training hours) are always published well in advance during the previous year. This makes it possible to prepare for the training in good time. At the same time, a multi-year plan is created for the content and refresher needs of the common training courses that are mandatory for everyone, depending on Valio's needs.

We want to support personnel in identifying future competence needs and in renewing their careers. In 2023, we participated in the Finnish Institute of Occupational Health's "Professional and Reforming Careers" research project. Participant feedback highlighted the activation of their own agency through the project's coaching and the importance of sharing peer experiences. We support career development and internal knowledge-sharing also through a mentoring programme, which we made global in 2023. The online programme has 24 Valio employees from four countries. Feedback on the international programme and networking opportunities has been excellent. We will continue to support the growth of Valio employees and systematise our mentoring and coaching models.

### MENTAL WELLBEING REMAINED A PRIORITY FOR WORKPLACE WELLBEING

The biannual mental wellbeing weeks held globally are well established within Valio. The spring 2023 theme was a strong mind. We encouraged Valio employees to support mental wellbeing through physical and other activities. In the autumn, we focused on the theme of functional everyday life and our sites offered versatile

actions for the employees. For example we reflected on making work smoother, identifying stressful situations in everyday moments, and making everyday life smoother through small daily choices. Together, we reflected on things like gentle perseverance, self-compassion and emotional management. At one of our sites we supported mental wellbeing through physical activity, inspired by President Sauli Niinistö's #exercise challenge. The programme included, among other things, recreational activities together on a forest trail, taking a walk and exercising at an outdoor gym. There have also been body composition measurements and guidance on healthy nutrition.

In Finland, we added short-term psychotherapy to our regular occupational health services. In 2023, we continued piloting the Auntie Solutions service. The service provides personalised, low-threshold support in life's difficult moments. In recognition of our commitment to mental wellbeing, we were designated as a "Mental Health Friendly Workplace" again by the MIELI Finnish Association for Mental Health.

Reducing the number of absences related to mental wellbeing remained a clear priority in 2023. Even though social crises and changes in working life burdened Valio employees during the year, our strong focus on mental wellbeing has paid off. Both our employee survey and occupational health indicators show that we have been even more successful in supporting the mental wellbeing of Valio employees.

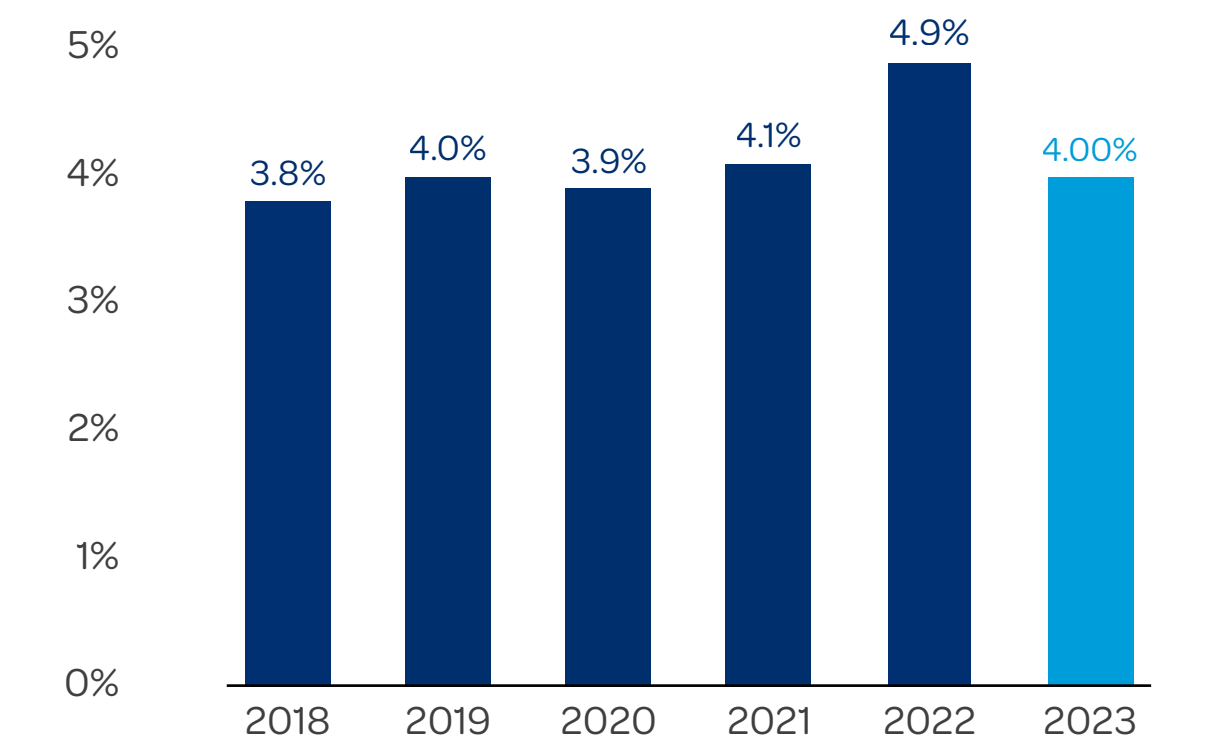
While musculoskeletal problems due to the physical nature of the work remain the leading reason for sickness absences at Valio, there has been a clear downward trend in recent years. In 2023, we continued our strong



commitment to the prevention of these problems by, e.g., intensifying cooperation between supervisors and occupational health, and by increasing occupational physiotherapist services at the workplace.

In 2023, we also continued to work on the theme of diversity, equity and inclusion. At the beginning of the year, we held a Valio Talk webinar on diversity to expand on the theme and its importance to Valio. During the rest of the year, we focused on launching a stocktaking assessment at the global level and prepared for an update of the Equity and non-discrimination plan. As part of the new model for common training, during 2024 every Valio supervisor will have to complete the training that has been available already earlier to supervisors: Supervisor, conflicts and improper behaviour.

### Sickness absences in Valio Finland







## We continuously improve work safety

**OUR OPERATIONS** are guided by a global Occupational Health and Safety Policy. The safety-related situation, information and news are passed through the occupational health and safety delegates, the occupational health and safety officers, and the safety steering group and safety management team up to the Valio Executive Board.

All our sites have a joint body for occupational health and safety comprising representatives of the employer and employees. The occupational health and safety committee, which has defined activities and roles, meets at regular intervals to develop occupational health and safety issues in the workplace through constructive dialogue. The occupational health and safety delegates represent workers in day-to-day activities, such as in risk assessments and in investigations of work injuries and hazardous situations.

Valio also has a number of processes in place to ensure that employees have a voice in the development and implementation of the occupational health and safety management system, such as safety discussions, Valio Voice employee surveys, an observation system and the Valio Whistle reporting system.

### AIMING FOR ZERO WORK INJURIES

We encourage employees to immediately report any hazardous situations and safety shortcomings they observe. In 2023, a record 2,879 (2022: 2,539) hazard-

ous situation observations were recorded and processed in Finland. We aim to increase the number of incident observations, as we want to raise awareness of potential hazards and to prevent accidents. In line with our Global Management model, we investigate hazardous situations and work injuries, including those incidents involving external parties, at properties managed by Valio.

We assess the implementation and quality of risks assessments, work injury and hazardous situation investigations, as well as other key safety improvement procedures through annual internal safety audits. We annually audit all our production plants in Finland. Based on the findings of the safety audits, the sites receive feedback on the strengths of their operations and areas for improvement.

Valio's operations comply with the requirements of the globally recognised occupational health and safety standard ISO 45001, and we are developing our operations in line with the standard. The implementation of standard-aligned operations was started in 2021 and completed in Finland in 2023. The implementation of the procedures will continue globally in the subsidiaries. We will make a decision on the possible certification of the system separately. No customer or regulatory mandate has so far required Valio to certify to this standard.

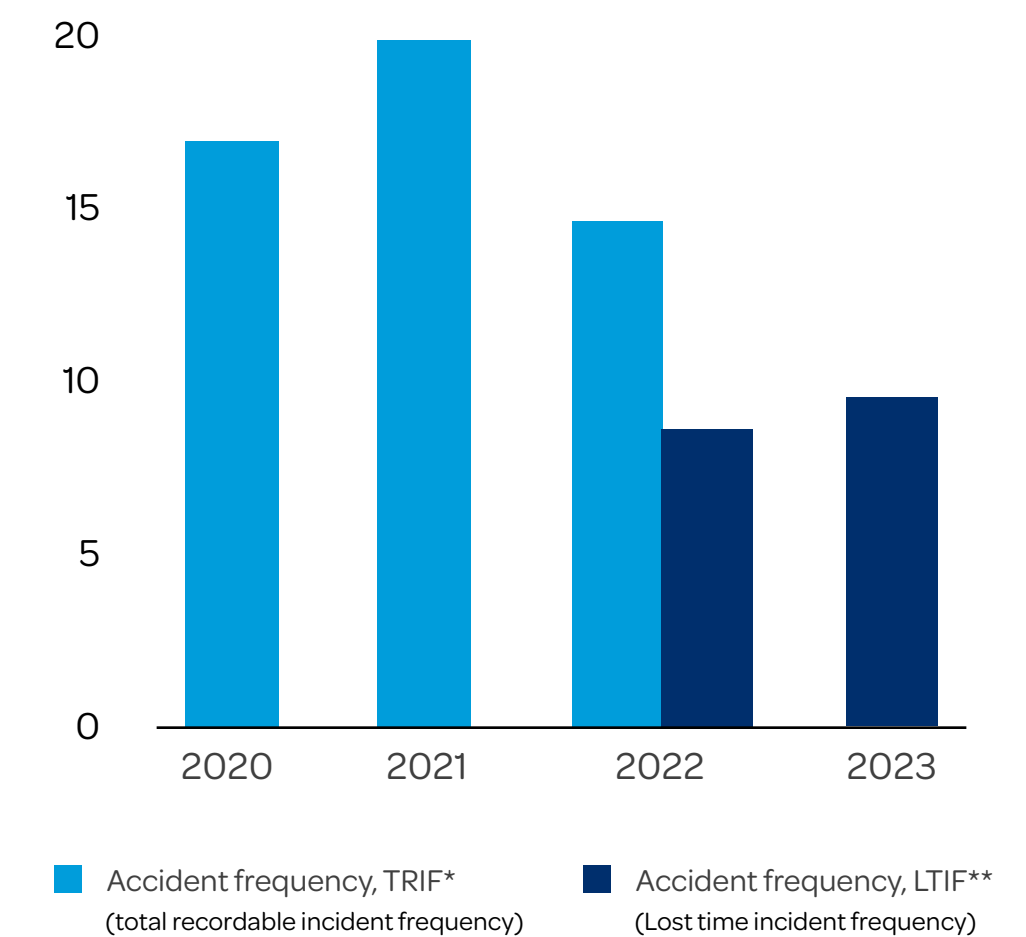
In 2023, we continued to update our work injury investigation procedure. We have succeeded in raising the quality of work injury investigations and the competence

of the investigation teams to a good level. We focused our use of resources more on thorough investigations, particularly of work injuries resulting in sickness absence, and less on first-aid cases and commuting accidents. In 2023, a big effort was also made to update the work permit procedure for particularly hazardous work in maintenance.

Our long-term goal is zero work injuries and accidents. The number of work injuries increased by a few compared to the previous year. Work injuries were very mild, on average, and the periods of disability caused by them were very short. None of the accidents resulted in death. There were no work injuries resulting in an absence in the wholesale operations in Vantaa and at the worksites in Tampere. In 2023, seven work injuries involving external operators were reported on properties managed by Valio.

The number of accidental sickness absences was the lowest in recorded history and almost half smaller compared to the number in Finland in the previous year. This indicates that we are moving in the right direction, and that the measures set out in the roadmap are the right ones. In 2024, we will continue to improve procedures to eliminate occupational hazards, develop safety visibility and target tailored measures at sites with different performance levels.

**Accident frequency**  
(incidents per million working hours)



Includes at-work accidents involving Valio Ltd's and subsidiaries employees. Does not include professional diseases or commuting.

\*Accidents and pain induced by work-related postures resulting in an absence from work or in treatment expenses.

\*\*Accidents resulting in an absence from work.





# FOUNDATION OF RESPONSIBLE BUSINESS

A cooperative approach and good governance are the foundation of our responsible business. Our Codes of Conduct define our common ways of working and obligate our partners to comply with our ethical principles. We systematically reject corruption and bribery. We improve data security and protection by continuously training our personnel. Our risk management is important for Finland's security of supply. We ensure transparency of our supply chains by, e.g., auditing our suppliers.

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

**VALIO'S CODE OF CONDUCT**, "Our way of working" defines the common rules for Valio employees. The Code of Conduct is based on our values and covers the shared ethical principles that we respect and that Valio employees must take into account in all their actions. We also have 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 these Valio's sustainability principles. [Read more about responsible sourcing.](#) →





## We reject corruption and bribery, and we identify potential conflicts of interest

**VALIO HAS ZERO TOLERANCE** for 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 policies on approving internal investments and procurement and sales contracts as well as a policy on signing contracts.

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 and to ensure compliance with international sanctions. In 2023, we introduced an electronic tool across the Group to verify the background of customers and suppliers and to ensure that we do not cooperate with entities such as those subject to international sanctions. In 2023, the Know Your Client work did not identify any situations where cooperation with the contractual partners could not continue due to Trade Compliance requirements.

We have defined internal guidelines also for receiving and offering gifts and hospitality and for avoiding conflicts of interest. Every Valio employee must report any illegal or unethical activity they observe to their own supervisor or Valio's HR Director, Legal Affairs, or Risk Management. The report can be made also anonymously through the Valio Whistle reporting channel.

At the end of 2023, we developed a model to improve proper identification and avoidance of conflicts of interest. We maintain a register of Valio's related parties,

i.e. a list of entities in which a member of Valio's management or a person close to him/her exercises control. If Valio plans to engage in cooperation with a related party, approval for such cooperation is given under normal business conditions and without the related party being involved in the decision-making process. In this way, we ensure that only the interests of Valio are affected in the decision-making process.

### **VALIO WHISTLE REPORTING CHANNEL FOR INTERNAL AND EXTERNAL STAKEHOLDERS**

We want to ensure that issues, even difficult ones, can be discussed openly, confidentially and in a solution-oriented way. If a Valio employee experiences or observes financial misconduct or other unlawful or unethical conduct, they are instructed to discuss the matter first with their own supervisor or report it to Valio's HR Director, Legal Affairs, or Risk Management.

Sensitive issues can also be reported through the Valio Whistle reporting channel. Valio's internal and external stakeholders can use the channel to report Valio-related financial misconduct and other activities that are not in compliance with Valio's values, ethical principles or the law. The reporting channel can be used to confidentially and, if desired, anonymously report serious concerns related to Valio's operations or practices. If the report is made in the informant's own name, Valio will ensure that the informant is not subject to retaliatory action for making the report.

All new Valio employees are introduced to the Code of Conduct as part of Valio's induction programme. Valio employees also complete online Code of Conduct training whenever the Code of Conduct is updated. We communicate regularly on Code of Conduct topics and provide more specific training on the topics to relevant target groups. We regularly monitor the completion rate of Code of Conduct training. Our target is that training is completed by more than 90 per cent of employees in each country.

### **The completion rate of Code of Conduct training in 2023 was:**

Estonia	96%
Finland	87%
Sweden	96%
USA	100%
China	100%

We updated Valio's Code of Conduct at the end of 2023. All employees will receive information and online training about the new Code of Conduct during 2024.

[Read more about Valio's new Code of Conduct on our website. →](#)





In 2023, we received 49 reports through the Valio Whistle channel and one from outside the reporting channel. The report topics were divided into the following top-level categories:

- Harassment or discrimination: 26 reports
- Other: 11 reports
- Code of Conduct violations: 13 reports

There were no reports involving Supplier and Distributor Code of Conduct violations or corruption.

We handled all the reports promptly and in accordance with the relevant management process. The required measures have been implemented or are in the process of being implemented. In three cases, not enough additional information was received to complete the case. Valio's Board of Directors annually receives information about the reports. [Read more about the reporting channel and the handling process on our website.](#) →

## We are improving data security and data protection with training

**THE PURPOSE OF DATA SECURITY** is to protect data and information systems. Data security refers to the company's technical measures to ensure the confidentiality and integrity of data, the usability of systems and the rights of data subjects. Data security is one way of implementing data protection.

The geopolitical changes of 2022 significantly increased the security threats for Finland's security of supply-critical companies. In 2023, cyber influence continued to increase in Finland and became more visible to the public. For Valio, the year's most significant data security measures were related to further improving detection, response and recovery capabilities.

Data security is linked to Valio's strategy through competent Valio employees. An important area of our data security activities is to develop the data security competence and understanding of Valio employees through training and through intranet communications about current issues and phenomena. In 2023, we updated online data security training targeting all Valio employees. Some Valio employees participated in continuous year-round security training via email.

The focus in 2024 will be on developing employee data security awareness and on further improving visibility and responsiveness. We are also preparing for the adoption of the EU critical infrastructure Network and Information Security Directive (NIS2).

The data security management forum is an IT management team that meets weekly. The annual number of serious data security incidents is used as a measure

of data security. The target is zero serious data security incidents; the target was met in 2023.

We are active in, among others, the information exchange groups that Traficom's cyber security centre implements for companies critical to security of supply. Valio's representative acted as vice-chair of the food group in 2023 and will continue this role also in 2024.

### WE RENEWED OUR DATA PROTECTION GUIDELINES

In 2023, we renewed the data protection guidelines that complement Valio's data protection policy. They are intended to provide practical guidelines for the proper processing of personal data, the exercising of data subjects' rights and other requirements related to the processing of personal data.

Valio's data protection organisation consists of representatives of the legal department and privacy champions designated in the different business operations. The purpose of the data protection organisation is to guide and assist Valio employees in matters related to data protection and to develop processes related to the realisation of data protection. The purpose is also to provide more specific instructions on personal data processing and to maintain documentation related to personal data processing.

The legal department has trained Valio employees in Finland in data protection and other issues. The 2023 rollout of the updated data protection-related online training material will be completed in spring 2024.



## Ensuring security of supply is part of Valio's risk management

**THE CONTINUITY OF VALIO'S BUSINESS**, processes and information systems is important, as we are a major recipient of milk and manufacturer and distributor of food products. We ensure that the delivery reliability to our customers is at a high level every day. At the same time, we play our role in ensuring national security of supply in the event of various exceptional situations.

In addition, food safety, occupational safety, and the quality of products and operations are at the heart of Valio's risk management. If they fail, there would be a risk of injury and potential liability risks both for consumers and Valio's customer companies.

Valio's risk management principles are based on the COSO ERM and ISO 31000 standards. In line with the Group's risk management policy approved by the Board of Directors in 2023, we classify risks as strategic, operational, financial or compliance risks.

Our annual risk management process aims to identify, assess and manage the risks most significant to the achievement of Valio's business objectives. This is the responsibility of all organisational functions, supported by the Risk Management Office. Valio's Executive Board has overall responsibility for the implementation of risk management. Valio's Board of Directors is responsible for the risk management policies. Valio's strategy work examines not only risks but also opportunities.

From a national security of supply perspective, Valio plays an important role in ensuring food supply

operations. Valio's most important stakeholder in security of supply activities is the food industry pool, which is comprised of food industry companies that are classified as critical to security of supply. The pool organises exercises and information and training events supporting continuity management of the security of supply-critical companies. As a multisector player, Valio is also represented in a number of other pools related to security of supply, such as the primary production pool, the digital pool, and the trade and distribution pool. We are actively involved in the development of the pools and the security of supply activities and in maintaining a current situational picture. In 2023, Valio participated in a food industry pool development project. The project is expected to be completed in 2024.

We use our reporting system to monitor the profitability of the business, potential risk concentrations and the development of our financial position on a broad basis. We manage our financial and interest rate risks through, e.g., loan arrangements and credit risks related to trade receivables through lines of credit, collateral and payment terms. In 2023, volatility was driven by a weaker global economy, increased cyber security threats, rising inflation, interest rates and costs, and changes in consumer behavior. A new theme in risk management has been to ensure Valio's preparation for the changing EU and national regulations that will come into force in 2024. Rising political tensions in Asia

**From a national security of supply perspective, Valio plays an important role in ensuring food supply operations.**

and increased extreme weather events highlight risks in supply chains.

We reviewed the risks and opportunities related to sustainability issues as part of the ESRS-compliant materiality assessment carried out at the end of 2023. The assessment was based on the results of the current business risk assessment. In addition, the assessment was supplemented by risks and opportunities related to the sustainability topics defined in the ESRS standards, which were identified together with business and sustainability experts. In 2024, we will update the current business risk assessment process to include the sustainability-related risks and opportunities. In addition, we will adjust the risk management system to support the sustainability perspective.





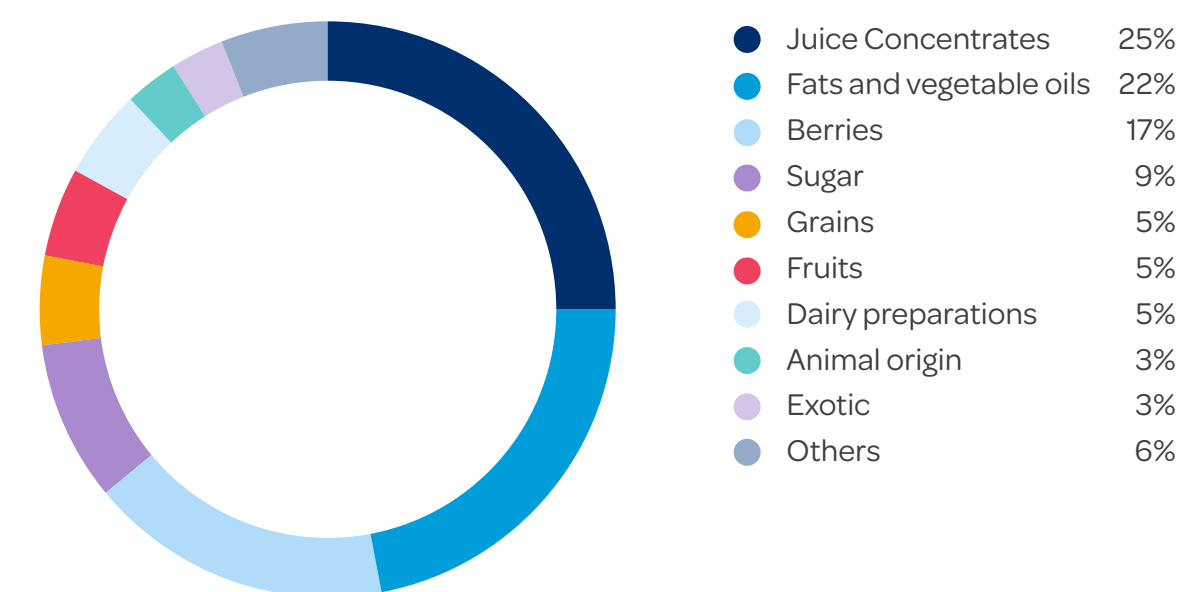


## Our supply chains are transparent

**OUR RESPONSIBLE SOURCING** is based on food safety, social responsibility and environmental responsibility. Our aim is for the entire supply chain to be transparent and verifiable. We know the supply chain of raw materials down to the manufacturer and have identified the most material risks in our supply chain.

Our procurement team works closely with product and packaging development, the food safety team, and product groups to ensure 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.

Raw material categories, 2023\*



\*By spend.

Our procurements are guided by **Valio's Sourcing and Contract Manufacturing Policy**. 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 additionally commit to compliance with Valio's food safety-related requirements and guidelines.

### MILK IS OUR MOST IMPORTANT RAW MATERIAL

Our main raw material in Finland is the Finnish milk produced by our owners, which we source through our cooperatives. Milk accounts for more than 95 per cent of the raw materials used in the products we make. Products manufactured in other countries are made using local milk. Read more about milk production in the **Vitality of dairy farms and animal welfare** section of this report.

In addition to milk, our raw materials include juice concentrates, vegetable oils, berries, sugar, fruit purees, chunks and concentrates, and grains. Juice concentrates, vegetable oils and berries account for 64 per cent of raw material purchases, excluding milk. The shares of the other raw material categories are shown in the accompanying graph. Four of our ten largest raw material suppliers are Finnish. 69 per cent of our direct procurement spend is with local suppliers in Finland.

### WE PROCURE MATERIALS, SERVICES AND FINISHED PRODUCTS

Most of our procurement is indirect procurement. It covers the procurement of materials and services that support production and business operations such as logistics, maintenance, marketing, building maintenance and servicing, and IT.

Valio also has contract manufacturing partners who manufacture or package consumer products mainly under the brands owned by Valio. These contract manufacturers follow the same procurement principles that Valio applies in its own manufacturing.

Valio Aimo® wholesale's finished product portfolio includes a wide variety of products and services for the hotel, restaurant and catering business.

### WE MONITOR THE RESPONSIBILITY OF SUPPLIERS AND DISTRIBUTORS

Valio has separate Code of Conduct for suppliers and distributors. We require our suppliers to sign their commitment to the requirements of the Code of Conduct. It is one of our conditions for supplier approval.

We have about 180 direct suppliers. We require all of them to commit to the Code of Conduct. For indirect suppliers, we require a commitment from key suppliers, of which there are around 1,100. The coverage of suppliers and distributors committed to the Code of Conduct in indirect procurement rose to 56 per cent in 2023. In 2022, the coverage was 36 per cent.



**COMMITMENT TO CODE OF CONDUCT  
IN 2023\***Direct sourcing (raw materials  
and packaging materials)**100%**

Contract manufacturing

**98%**

Indirect sourcing

**56%\*\***

Total

**63%**

\*Includes suppliers in Finland (excl. wholesale suppliers).

\*\*Roll-out to suppliers ongoing, started in 2021.

In the Valio Aimo® wholesale business, the development and harmonisation of supplier management procedures continued in 2023. The end of the year also saw the launch of broader Valio Aimo® sustainability programme planning, which is expected to be finalised in 2024.

**APPROVAL OF SUPPLIERS, MANUFACTURERS  
AND SERVICE PROVIDERS IS GUIDED BY RISK  
CLASSIFICATION**

Our approval process and requirements for suppliers are based on the food safety and sustainability classifications we give our suppliers. Depending on the risk classification, we require our contract manufacturing, raw material and packaging manufacturers to have a GFSI-approved food safety certificate and/or to respond to Valio's food safety questionnaire.

The sustainability (ESG) approval requirement is based on Valio's sustainability questionnaire, which includes questions on the environment, human and labour rights, safety and responsible business practices. We will update the questionnaire during 2024.

We built the approval criteria and their documentation into our supplier management system in 2022. We adopted the new approval criteria as the approvals under the old criteria expired. The transition of the approval process is still ongoing, and it mainly covers direct suppliers and manufacturers, as well as key suppliers for indirect procurement. We will develop and streamline our supplier management system in 2024 to meet increasing requirements for data management and collection.

**WE AUDIT OUR SUPPLIERS**

We audit our suppliers on the basis of food safety and sustainability classification requirements. Food safety and quality audits are carried out by Valio's own qualified auditors. Our audits are always on-site for manufacturers who supply raw materials of animal origin or who supply raw materials or packaging materials for baby food. We audit other manufacturers separately, if necessary. In 2023, we conducted food safety audits of 52 manufacturers. This was almost double the number compared to 2022.

In sustainability auditing, we use Smeta (Sedex Members Ethical Trade Audit) and Amfori BSCI (Business Social Compliance Initiative) audits conducted by third parties. Of manufacturers in high-risk countries, 48 per cent have had a sustainability audit in the last three years. Our aim is to have uniform practices in all countries of operation. In 2024, we will harmonise both the supplier management requirements and systems.





**WE ONLY ACCEPT SAFE PRODUCTS**

Food safety is one of our key sustainability priorities. The food safety of the raw materials and packaging materials we buy plays a key role in the safety of our products. The introduction of raw materials requires responding to and approval of Valio's Product Questionnaire from a sourcing, product development and food safety perspective. The introduction of packaging materials requires approval of the specification and the declaration of compliance.

We have carried out an extensive assessment of the raw material-specific liability risks, and, based on the supply chain liability risks, we have identified the raw materials that require special attention and more stringent governance practices. Read more in the section [We manage sustainability risks related to raw materials.](#)

**SUSTAINABLE SOURCING PROGRAMME**

In 2021, we created the sustainable sourcing programme, which aims to increase the procurement organisation's knowledge of different areas of sustainability, meet growing customer expectations and make procurement more sustainable from an environmental, economic and social responsibility perspective. The sustainability programme's actions extend to 2025.

In 2023, we continued with our tried-and-tested sustainable sourcing workshops to increase our procurement personnel's understanding and skills in the area of sustainability and to set short- and long-term goals. These workshops will continue on a regular basis in 2024. Closer supplier collaboration on the sustainability programme will continue in 2024, including the collection of more accurate data on our Scope 3 emissions.

In 2022, we created a climate performance assessment tool, which was piloted in 2023. The results were promising, and we aim to extend the tool to social responsibility during 2024. We intend to increase the weight of social and environmental responsibility in tenders for centralised procurement. In 2024, we will also define principles and objectives for responsible marketing procurement. In the work, we will use the results of the 2023 Marketing Finland survey on sustainability in marketing procurement.



**WE COLLABORATE TO PROMOTE SUSTAINABLE SOURCING**

LOGY	SEDEX	AMFORI	NORDIC SOURCE
Valio is a member of the Finnish Association of Purchasing and Logistics. Through the professional network, we gain knowledge, training, contacts and experience to promote sustainability in logistics and procurement.	Valio is an AB member of the Sedex (Supplier Ethical Data Exchange) organisation. Sedex is a non-profit organisation that helps its members to promote responsible supply chains and to disseminate sustainability information.	Through our membership in amfori BSCI (Business Social Compliance Initiative) and amfori BEPI, we aim to strengthen the verification of supply chain sustainability.	Valio is a member of the Nordic Source cooperative, whose main mission is to find the best operating models and procurement concepts for different procurement categories. We are part of Nordic Source's sustainability working group and we use contracts negotiated by Nordic Source in our procurements.



Member of amfori, the leading global business association for open and sustainable trade. For more information visit [www.amfori.org](http://www.amfori.org)



## Governance and remuneration

**FINNISH MILK PRODUCERS** own Valio through cooperatives. We pay our operating profit to the dairy farmers. Valio's Board of Directors, comprising four Valio dairy farmers, assesses how much Valio can pay for the milk at any given time. We pay the cooperatives a so-called milk price for the milk received. The cooperatives pay a producer price to the farmers and independently decide on changes in the milk producer price. The Board of Directors monitors the activities of Valio's operative management and the business. Valio is owned by a total of 13 cooperatives. Of these, five are Valio's procurement cooperatives that supply milk to Valio.

Valio Ltd's decision-making bodies are the General Meeting, the Supervisory Board and the Board of Directors. Valio's Executive Board is responsible for the day-to-day management of the business operations and exercises operational decision-making power. Valio's governance model, the activities of the decision-making bodies, key individuals and the Executive Board are presented in more detail on [our website](#).

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 for the Supervisory Board.

### SUPERVISORY BOARD REMUNERATION

In 2023, Valio's Supervisory Board was paid a total of EUR 216,814 in monthly and meeting fees.

- Chairman EUR 3,130/month
- Vice Chairman EUR 2,030/month
- Meeting fee for each Supervisory Board meeting EUR 330
- Compensation for lost working time for each Supervisory Board meeting EUR 300

### BOARD OF DIRECTORS REMUNERATION

In 2023, Valio's Board of Directors was paid a total of EUR 242,460 in monthly and meeting fees.

- Chairman EUR 4,780/month
- Vice Chairman EUR 2,980/month
- Meeting fee for each Board of Directors meeting EUR 330
- Compensation for lost working time for each Board of Directors meeting EUR 300

### 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 2023, 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 3,681,653







YEAR 2023

VALIO'S DIRECTION

FOCUS AREAS

**REPORTING**



SUSTAINABILITY REPORTING AND SCOPE [83](#)

THIRD-PARTY ASSURANCE REPORT [84](#)

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# 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 in Finnish and in English. The report is available on our website.

This Sustainability Report covers Valio's activities in 2023 and early 2024. In addition to the Finnish operations, the reporting also largely covers Valio's operations in other countries. The applicable operations are specified in conjunction with the figures and other information presented in the report. The methods of calculating the environmental indicators of our Finnish and Estonian production facilities differ due to, for example, the country-specific regulatory guidelines. The report presents environmental data for 2023 to the extent that they are in a comparable format.

In our reporting, we focus on the aspects of sustainability that are most material for our operations – our sustainability focus areas. These focus areas have been

defined on the basis of a materiality assessment. We have paid particular attention to the clarity, comparability, comprehensiveness and verifiability of the information in the Sustainability Report.

The Sustainability Report complies with the requirements of the updated indicators of the Global Reporting Initiative (GRI). A comparison of the report's contents with GRI standards is presented in the [GRI index table](#).

The Sustainability Report's financial figures are based on data verified by a third party (PricewaterhouseCoopers). The Auditor's Report is published in conjunction with the publication of Valio's Board of Directors' Report and Financial Statements. The greenhouse gas emissions data have been verified by a third party (PricewaterhouseCoopers Oy) in accordance with the [assurance report](#). More detailed sources and the methodology used in the emissions calculation are described in our [greenhouse gas inventory](#).







## Independent practitioner's limited assurance report

### TO THE MANAGEMENT OF VALIO GROUP

We have been engaged by the Management of Valio Group (hereinafter also the "Company") to perform a limited assurance engagement on selected information on emissions for the reporting period from 1 January 2023 to 31 December 2023, disclosed in Valio Sustainability Report 2023 (hereinafter the Selected sustainability information).

### SELECTED SUSTAINABILITY INFORMATION

The selected sustainability information within the scope of assurance covers:

- GRI 305-1 Direct (Scope 1) GHG emissions
- GRI 305-2 Energy indirect (Scope 2) GHG emissions
- GRI 305-3 Other indirect (Scope 3) GHG emissions

### MANAGEMENT'S RESPONSIBILITY

The Management of Valio Oy is responsible for preparing the Selected sustainability information in accordance with the GRI Standards of the Global Reporting Initiative reporting criteria and the Green House Gas Protocol Standards as described in the Sustainability report 2023 of Valio Group. The Management of Valio Group is also responsible for such internal control as the management determines is necessary to enable the preparation of the Selected sustainability information that is free from material misstatement, whether due to fraud or error.

### PRACTITIONER'S INDEPENDENCE AND QUALITY MANAGEMENT

We have complied with the independence and other

ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants (IESBA code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

PricewaterhouseCoopers Oy applies International Standard on Quality Management (ISQM) 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### PRACTITIONER'S RESPONSIBILITY

Our responsibility is to express a limited assurance conclusion on the Selected sustainability information based on the procedures we have performed and the evidence we have obtained. We conducted our limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (revised) "Assurance Engagements Other than Audits or Reviews of Historical Financial Information", and, in respect of greenhouse gas emissions, International Standard on Assurance Engagements (ISAE) 3410 "Assurance Engagements on Greenhouse Gas Statements". These standards require that we plan and perform the engagement to obtain limited assurance about whether the Selected sustainability information is free from material misstatement.

In a limited assurance engagement, the evidence-gathering procedures are more limited than for a reasonable assurance engagement, and therefore less assurance is obtained than in a reasonable assurance engagement. An assurance engagement involves performing procedures to obtain evidence about the amounts and other information in the Selected sustainability information. The procedures selected depend on the practitioner's judgment, including an assessment of the risks of material misstatement of the Selected sustainability information.

Our work consisted of, amongst others, the following procedures:

- Interviewing representatives of the Company.
- Performing a virtual site visit in the Company's site to evaluate the processes and IT systems and how site level data is collected and consolidated into the Company's reporting
- Interviewing employees responsible for collecting and reporting the Selected sustainability information at the Group level.
- Assessing how the reporting instructions and procedures are applied in the Company.
- Testing the accuracy and completeness of the Selected sustainability information from original documents and systems on a sample basis.
- Testing the consolidation of the Selected sustainability information and performing recalculations on a sample basis.
- Considering the disclosure and presentation of the Selected sustainability information.

### LIMITED ASSURANCE CONCLUSION

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that Valio Group's Selected sustainability information for the reporting period ended 31 December 2023 is not properly prepared, in all material respects, in accordance with the Reporting criteria.

When reading our limited assurance report, the inherent limitations to the accuracy and completeness of the Selected sustainability information should be taken into consideration.

Our assurance report has been prepared in accordance with the terms of our engagement. We do not accept, or assume responsibility to anyone else, except to Valio Group for our work, for this report, or for the conclusion that we have reached.

Helsinki 24 April 2024

### PricewaterhouseCoopers Oy

#### Mikael Niskala

Partner  
Sustainability Reporting &  
Assurance

#### Niina Vilske

Partner,  
Authorised Public  
Accountant (KHT)





## GRI INDEX

GRI STANDARDS DISCLOSURE		LOCATION	COMMENTS
<b>GRI 2: GENERAL DISCLOSURES (2021)</b>			
<b>Organizational profile</b>			
2-1	Organizational details	p. 3–5	<a href="http://www.valio.com">www.valio.com</a>
2-2	Entities included in the organization's sustainability reporting	p. 3–5, 83	
2-3	Reporting period, frequency and contact point	p. 83	mediadesk@valio.fi +358 10 381 2118  This Sustainability Report covers Valio's operations in 2023 and early 2024.  Report publication date: 26.4.2024
2-4	Restatements of information	GRI index	In the 2022 report, the table Energy consumption at Valio's production plants in 2022, p. 41, erroneously included Estonia's consumption in the non-renewable heat figure for Finland. Additionally, in the 2022 report, the percentage figures in the graphs on p. 66, Personnel by age, and p. 67, Total number of new hires by age, were transposed.
2-5	External assurance	GRI index p. 83	The Sustainability Report has not been externally assured. The data on greenhouse gases and the financial figures in the Sustainability Report have been assured by PricewaterhouseCoopers Oy.
<b>Activities and workers</b>			
2-6	Activities, value chain and other business relationships	p. 3–5, 16, 78	
2-7	Employees	p. 69–70	In 2023, Valio employed 350 summer workers. Partially reported. Regional data on the form and nature of employment of employees by gender will be reported in accordance with the requirements and timetable of the EU Corporate Sustainability Reporting Directive (CSRD).
2-8	Workers who are not employees	GRI index	Estimated number of employees reported for the wholesale business. The wholesale business employs a variable number of temporary employees (on average 75 employees per month). Temporary workers are able to make up for unexpected absences and provide flexibility to fluctuation in volume. Missing data for non-own employees will be reported according to the requirements and timeline of the EU Corporate Sustainability Reporting Directive (CSRD).





GRI STANDARDS DISCLOSURE		LOCATION	COMMENTS
<b>Governance</b>			
2-9	Governance structure and composition	GRI index	The governance structure and composition are described at: <a href="http://www.valio.com/we-are-valio/owners-and-governance/">www.valio.com/we-are-valio/owners-and-governance/</a>
2-10	Nomination and selection of the highest governance body	GRI index	Nomination and selection of the Board of Directors is described at: <a href="http://www.valio.com/we-are-valio/owners-and-governance/">www.valio.com/we-are-valio/owners-and-governance/</a>
2-11	Chair of the highest governance body	GRI index	Chair of the Board of Directors: <a href="http://www.valio.com/we-are-valio/owners-and-governance/">www.valio.com/we-are-valio/owners-and-governance/</a>
2-12	Role of the highest governance body in overseeing the management of impacts	p. 10, 14–15	The Board's role is described at: <a href="http://www.valio.com/we-are-valio/owners-and-governance/">www.valio.com/we-are-valio/owners-and-governance/</a>
2-13	Delegation of responsibility for managing impacts	p. 14–15	
2-14	Role of the highest governance body in sustainability reporting	p. 14, 17–18	The report package has been approved by a member of the Management Team responsible for Sustainability.
2-15	Conflicts of interest	p. 75, 78	
2-16	Communication of critical concerns	p. 75–76	
2-17	Collective knowledge of the highest governance body	p. 14	
2-18	Evaluation of the performance of the highest governance body	p. 14	
2-19	Remuneration policies	p. 81	Some data omitted for confidentiality reasons.
2-20	Process to determine remuneration	p. 81	Some data omitted for confidentiality reasons.
2-21	Annual total compensation ratio	GRI index	Some data omitted for confidentiality reasons.
<b>Strategy, policies and practices</b>			
2-22	Statement on sustainable development strategy	p. 7	
2-23	Policy commitments	p. 14, 19–22, 43, 61, 66–67, 73, 75–78	Policies are listed at: <a href="http://www.valio.com/sustainability/responsible-leadership/policies/">www.valio.com/sustainability/responsible-leadership/policies/</a>
2-24	Embedding policy commitments	p. 14, 19–22, 43, 61, 66–68, 73–78	
2-25	Processes to remediate negative impacts	p. 16, 19–22, 64, 67–68, 75–76	





GRI STANDARDS DISCLOSURE		LOCATION	COMMENTS
2-26	Mechanisms for seeking advice and raising concerns	p. 75–76	
2-27	Compliance with laws and regulations	GRI index	1 pcs., described in more detail in section 206-1.
2-28	Membership associations	GRI index	List of memberships at: <a href="http://www.valio.com/we-are-valio/stakeholder-relations/">www.valio.com/we-are-valio/stakeholder-relations/</a>
<b>Stakeholder engagement</b>			
2-29	Approach to stakeholder engagement	p. 24–28	
2-30	Collective bargaining agreements	p. 70	There are no collective bargaining agreements applicable to personnel in Valio's foreign subsidiaries.
<b>GRI 3: MATERIAL TOPICS (2021)</b>			
3-1	Process to determine material topics	p. 16–17	
3-2	List of material topics	p. 16–17	<p>List of material topics:</p> <ul style="list-style-type: none"> <li>Food safety and product quality</li> <li>Preventing child and forced labour in the value chain</li> <li>Preventing corruption and bribery</li> <li>Working conditions of dairy farm and value chain workers</li> <li>Ethical company culture and responsible ways of operating</li> <li>Personnel wellbeing</li> <li>Environmental protection and energy efficiency</li> <li>Biodiversity</li> <li>Water</li> <li>Animal welfare</li> <li>Carbon-neutral milk production</li> <li>Product availability and security of supply</li> <li>Circular economy and waste reduction</li> <li>Product information</li> <li>Customer data protection</li> <li>Responsible marketing</li> </ul> <p>A double materiality assessment was carried out at the end of 2023. The data to be reported will be reviewed during 2024 and will be reported in accordance with the requirements and timetable of the EU Corporate Sustainability Reporting Directive (CSRD).</p>
3-3	Management of material topics	p. 13–18, 19–22	<a href="http://www.valio.com/sustainability/sustainability-in-production/resource-efficiency/">www.valio.com/sustainability/sustainability-in-production/resource-efficiency/</a>





GRI STANDARDS DISCLOSURE		LOCATION	COMMENTS
<b>Economic standards</b>			
<b>GRI 201: Economic performance (2016)</b>			
201-2	Financial implications and other risks and opportunities due to climate change	p. 30–32	Climate change-related financial information, risks and opportunities will be reported in accordance with the requirements and timeline of the EU Corporate Sustainability Reporting Directive (CSRD).
201-3	Defined benefit plan obligations and other retirement plans	GRI index	<a href="http://www.valionelakekassa.fi/yritys/">www.valionelakekassa.fi/yritys/</a>
<b>GRI 203: Indirect economic impacts (2016)</b>			
203-1	Infrastructure investments and services supported	p. 43–50	
203-2	Significant indirect economic impacts	p. 5, 22, 53–54	
<b>GRI 204: Procurement practices (2016)</b>			
204-1	Proportion of spending on local suppliers	p. 78, GRI index	Raw milk covers more than 95% of product raw materials. The raw milk used in Valio's production plants is sourced 100% locally, i.e. plants in Finland use Finnish milk and plants in Estonia use Estonian milk.
<b>GRI 205: Anti-corruption (2016)</b>			
205-2	Communication and training about anti-corruption policies and procedures	p. 74–76	
205-3	Confirmed incidents of corruption and actions taken	p. 76	
<b>GRI 206: Anti-competitive behavior(2016)</b>			
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	GRI index	1 pcs. An unintentional error in the compliance with the Heinon Tukku acquisition terms, which was due to incorrect access rights to information systems. The FCCA has proposed a penalty payment of e 900 t, but the case is still pending before the Market Court.
<b>Environmental standards</b>			
<b>GRI 301: Materials (2016)</b>			
301-1	Materials used by weight or volume	p. 46, 48	





GRI STANDARDS DISCLOSURE		LOCATION	COMMENTS
<b>GRI 302: Energy (2016)</b>			
302-1	Energy consumption within the organization	p. 43–44	
302-4	Reduction of energy consumption	p. 20, 43–44	
<b>GRI 303: Water and Effluents (2018)</b>			
303-1	Interactions with water as a shared resource	p. 16, 45	<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	p. 45	<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	p. 45	No seawater is used.
303-4	Water discharge	p. 45	No seawater is used.
<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 zoned as industrial areas, so there are no officially classified natural values related to them.
304-2	Significant impacts of activities, products, and services on biodiversity	p. 16, 41–42	
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 three sites in Finland, and there are Siberian flying squirrel migration routes in the vicinity of the headquarters. There has been a moss classified as endangered found in the area of one production plant.
<b>GRI 305: Emissions (2016)</b>			
305-1	Direct (Scope 1) GHG emissions	p. 33–35	
305-2	Energy indirect (Scope 2) GHG emissions	p. 33–35	
305-3	Other indirect (Scope 3) GHG emissions	p. 33–35	
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	p. 46	





GRI STANDARDS DISCLOSURE		LOCATION	COMMENTS
<b>GRI 306: Waste (2020)</b>			
306-1	Waste generation and significant waste-related impacts	p. 46	
306-2	Management of significant waste-related impacts	p. 46–49	<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. 46	
306-4	Waste diverted from disposal	p. 46	
<b>Social standards</b>			
<b>GRI 401: Employment (2016)</b>			
401-1	New employee hires and employee turnover	p. 70	Partially reported.
<b>GRI 403: Occupational health and safety (2018)</b>			
403-1	Occupational health and safety management system	p. 73	<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. 73	<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	p. 72–73	
403-4	Worker participation, consultation, and communication on occupational health and safety	p. 72–73	<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>
403-5	Worker training on occupational health and safety	p. 72	<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	p. 72	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	p. 72–73	<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. 73	<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
<b>GRI 404: Training and education (2016)</b>			
404-1	Average hours of training per year per employee	p. 71	
404-2	Programs for upgrading employee skills and transition assistance programs	p. 71–72, 76	Valio has several procedures in place for changes in working life, including in the event of retirement, e.g., an ageing programme, transfer of tacit knowledge and arrangements for flexible work duties and working hours.
404-3	Percentage of employees receiving regular performance and career development reviews	p. 70–71	
<b>GRI 405: Diversity and equal opportunity (2016)</b>			
405-1	Diversity of governance bodies and employees	p. 69–71	Read more about the gender diversity of governance bodies at: <a href="http://www.valio.com/we-are-valio/owners-and-governance/">www.valio.com/we-are-valio/owners-and-governance/</a> Partially reported. Data on the age distribution of people in different governance bodies and personnel groups is missing and will be reported according to the requirements and timeline of the EU Corporate Sustainability Reporting Directive (CSRD).
<b>GRI 406: Non-discrimination (2016)</b>			
406-1	Incidents of discrimination and corrective actions taken	p. 75–76	
<b>GRI 408: Child labor (2016)</b>			
408-1	Operations and suppliers at significant risk for incidents of child labor	p. 16, 62–63, 78–80	
<b>GRI 409: Forced or compulsory labor (2016)</b>			
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labor	p. 16, 62–64, 78–80	
<b>GRI 414: Supplier social assessment (2016)</b>			
414-1	New suppliers that were screened using social criteria	p. 79	
414-2	Negative social impacts in the supply chain and actions taken	p. 16, 64, 78–80	
<b>GRI 416: Customer health and safety (2016)</b>			
416-1	Assessment of the health and safety impacts of product and service categories	p. 61	
<b>GRI 417: Marketing and labelling (2016)</b>			
417-1	Requirements for product and service information and labeling	p. 66, GRI index	All labelling of Valio's products is within the scope of legislation.





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