

Eckes-Granini Finland Oy Ab

Environmental Statement 2018-2021

Eckes-Granini Finland Oy Ab is part of Europe's leading juice business group Eckes-Granini, which has subsidiaries in several European countries. Founded in 1857, Eckes-Granini is a family business with headquarters still in Germany in the village of Nieder-Olm.

Eckes-Granini Finland (formerly Oy Marli Ab) has produced beverages in Turku since 1867. Eckes-Granini Finland brands include Marli, Mehukatti, Granini and Brämhults.

Foreword

Our Environmental Responsibility: A Little More and a Little Better Every Day

At Eckes-Granini, we are convinced that a holistic way of thinking and doing while taking account of the different perspectives of responsibility is at the heart of our operations and the starting point for sustainable growth. Simultaneous assessment from both the economic and environmental points of view has become a fundamental part of our daily work.

Not long ago, environmental responsibility was perceived as something applicable to a company's production processes and energy consumption only. Nowadays, our perspective is much wider and so assessing the environmental and responsibility aspects related to product packaging, recipes, raw materials, agricultural conditions, procurement and logistics has become routine for us.

Being the first food company in Finland to attain EMAS certification, we thoroughly and regularly review which environmental issues are of significance to us, how we can influence them and how we can further develop our operations and respond to future challenges.

We were also the first juice producer in Finland to utilize in our juice packaging Forest Stewardship Council (FSC) certified packaging laminates originating from responsible sources. The FSC is an international organization, whose mission is to promote sustainable development in the use of the world's forest resources. Furthermore, we are committed to take into consideration the Finnish recycling systems in our packaging materials.

During the past two years, we have also made a considerable contribution to the development of the nutritional value of our products, making them healthier. The amount of added sugar in a number of our product series, such as Marli Juissi and Marli Vital has been reduced by 20–30 %. Last year, we put on the market the lighter, unsweetened Marli Wellbeing drinks. In the spring of 2018, we also launched the new, unsweetened, organic Mehukatti portion pack juices. Our product portfolio thus responds increasingly well to consumer needs amid the current sugar discussion.



After the completion of our previous environmental statement, there has been a definite structural change in Eckes-Granini Finland production. We transferred a significant part of our cold chain production to Turku and we are aware that growth in the share of these products, requiring more

energy for their production, has also posed challenges to the targets set earlier for our energy consumption. In this respect, the optimization of our production process is in progress and we will continue to invest effort in whatever measures will reduce the energy consumption.

The electrical power we purchase is produced from completely renewable sources. One significant improvement from an environmental point of view is also a steam heating plant, which is situated in the immediate vicinity of our factory to provide bioenergy. After its completion, the steam energy used in our production processes will be produced in an environmentally friendly way, mainly fuelled by wood chips. In addition to this, our company entered into a voluntary energy efficiency agreement for the new period 2017–2025. Energy efficiency agreements are an important part of the Finnish energy and climate strategy and the primary way of advancing efficient energy consumption in Finland. Responsible and efficient energy consumption reduces the carbon dioxide emissions causing climate change.

Timo Laukkanen
General Manager
Eckes-Granini Finland Oy Ab



The following environmental statement applies to the whole organization of Eckes-Granini Finland Oy Ab.

Eckes-Granini Finland

The Eckes-Granini Finland Turku factory began operations on the present site in 1975. The factory is located in an industrialized area at Pansiontie 47 b, only a few hundred metres from the Baltic Sea and the Turku Archipelago. The historical roots of the company go back to 1867, when the company was founded in Turku. Production has been located in Turku throughout the company's entire existence.

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Eckes-Granini Finland produces liquid berry, fruit and vegetable products. The juice raw materials are brought to the factory in tank cars, containers or drums to the raw material warehouse, where the temperature is maintained at refrigerator temperature. The juice concentrates are transported by pipelines to the preparation area, where the mix concentrate and other added raw materials are administered by pumps into pipelines to the packing area. Each packing line has its own heat exchanger for pasteurizing the juice. Carton packages are treated with hydrogen peroxide prior to packaging so that the packages are cleansed, and the juice is dispensed in closed conditions. Packaged juices are delivered to the product warehouse, which is fully automated. Warehouse capacity is 9,500 pallet places.

Water utilized in the process comes from the Turku City water supply network. Product water is produced from this water by purifying it with particle filters and a UV unit and by removing oxygen from the water. Also, all of the cooling water used in the process comes from the Turku water supply network. Most of the water circulates in an internal closed loop. Process and sanitary waste water is discharged into the Turku City sewer system.

The last significant production change was the transfer of the cold chain production from Sievi to the Eckes-Granini Finland factory in Turku in 2017. For this reason, the whole cold production chain was built at the factory. For making the juice itself, a more efficient mixing system was acquired together with its horizontal tanks. Additionally, a new heat exchanger was acquired with a purpose and a capacity that correspond with our new products better than before. A new sanitization heat exchanger was acquired for the new packaging tanks and lines as well.

Eckes-Granini Finland has 129 employees (March 2018). Of these, an average of 75 people prepares and packages about 55 million litres of juice per year on nine different production lines. Production runs five days per week mainly as discontinuous three-shift work.



Most of the products are packaged in aseptic cartons. In addition to liquid carton packaging (0.2–1 litres), other packaging includes plastic bottles and canisters (0.5–10 litres) and glass bottles (0.5 litres). Eckes-Granini Finland is part of the Palpa and the Finnish Packaging Recycling RINKI Ltd recycling systems.

The company's local strategic brands, Marli and Mehukatti, are Finland's most well-known fruit beverage brands. Marli brand products have been produced in Turku since 1946 and Mehukatti products since 1977. In



terms of the environment, the most recent change of significance to the product portfolio was the range of organic products put on the market. Eckes-Granini Finland produces organic Mehukatti juices packaged in 2 dl liquid carton packaging. A juice product can be called organic when the ingredients are produced organically. No artificial colour or sweeteners are allowed in organic products. Eckes-Granini Finland is subject to organic monitoring. The Finnish Food Safety Authority Evira monitors the production of organic food produced in Finland and, by means of audits, verifies organic implementation at every stage of the production chains. Organic production is regulated by the EU Organic Regulation.

Annual production	Approx. 55 million litres
Products	Juices, juice concentrates, nectars, syrups, juice drinks, other drinks, berry soups, fruit purees, other fruit preparations
Product packaging	Liquid carton packaging, PET bottles, glass bottles, HDPE canisters
Personnel	129
Certifications	EMAS – Eco-Management and Audit Scheme certification ISO 14001:2015 – Environmental management system certification FSC – Certification of the responsible use of forests (the certification of the packaging material manufacturers, Tetra Pak/Elopak) SGF – Fruit and vegetable juices industry quality, safety, authenticity and sustainability certification Luomu – Certification by the Finnish monitoring system for organic production IFS Food – Quality and food safety management system certification

Quality Management System

Comprehensive quality assurance measures have been introduced in all of Eckes-Granini Finland's activities. We go well beyond fulfilling the legally defined benchmarks in many areas.

The main factors that determine our daily efforts to achieve highest quality:

- We select our suppliers carefully and monitor their quality and environmental awareness through regular audits.
- A number of our raw material suppliers come under the voluntary monitoring system of Sure-Global-Fair (SGF), the international fruit and vegetable juices industry monitoring organization. Eckes-Granini Finland is also a member of the SGF. The purpose of the organization is to monitor the quality, safety, authenticity, sustainable development and fair competition of products.
- We constantly update our HACCP system (Hazard Analysis and Critical Control Points). The system ensures a high-quality food production chain through the analysis of all of the critical points.
- We monitor the entire production process with a highly automated in-process control system. Microbiological controls done in the quality assurance laboratory ensure a high level of hygiene.
- We have a comprehensive hygiene program for production equipment.
- We ensure product traceability using well-established computerized systems and we guarantee that every product leaving the Eckes-Granini Finland factory can be traced back to individual raw materials and packaging.
- We apply a two-part audit strategy in compliance with international standards: In addition to internal audits, we ensure our high quality with the external IFS certification, for which we have constantly received a "Higher Level" result. IFS (International Food Standard) is the food quality and safety assessment standard commonly used in Europe.

The Environmental Policy at Eckes-Granini Finland

The mission at Eckes-Granini Finland Oy Ab (EGFin) is to provide consumers with high-quality liquid fruit, berry and vegetable products. These products are sold and marketed under well-known brands such as Marli, Mehukatti, God Morgon, granini, Brämhults and Tropic. The basis of EGFin's environmental policy is to produce the purest products possible which do not damage or harm the environment in any stage of their life cycle. In doing this, EGFin undertakes all its activities according to the principles of sustainability, prevention of pollution and continuous improvement of the environmental management system to improve the environmental performance.

With its environmental policy EGFin undertakes to comply with Finnish laws and decrees, and official regulations. In addition, EGFin is involved in the energy efficiency agreement system coordinated by the Ministry of Employment and the Economy. EGFin also takes into account the international standards and requirements regarding environment, environmental protection, waste management, packaging and packaging waste, etc.

Environmental Objectives

In accordance with EGFin's environmental policy, the key environmental objectives are as follows:

- Development of more environmentally friendly energy technology
- Improved recycling
- Improved environmentally friendly logistics
- Increasing environmental awareness

EGFin uses the best economically feasible technology and know-how so that the environmental impacts caused by production can be minimized.

We strive for a reduction in energy consumption and the amount of waste water, as well as a reduction in the generation of waste in production, storage and transport. The quality of our waste water is not harmful to the waste water treatment plant. In accordance with the Waste Act, EGFin strives to minimize disposable waste by developing recycling of different types of waste and by increasing employee training in recycling issues.

In logistics the goal is optimal load planning and full loads. When selecting the transport companies, we take into account how environmentally friendly the transport fleet is.

Responsibilities relating to the environment are defined in the company. We train our employees to

be environmentally aware employees and consumers. Environmental awareness is also conveyed to stakeholders.

Sustainability

Raw materials must be pure. EGFin invests in the development of environmentally favorable products. Products are packed in environmentally acceptable packaging without compromising on the quality and hygiene of the products. EGFin is actively seeking to develop packaging together with material suppliers: to reduce packaging weight, and to be able to reuse and recycle packaging. The aim is to minimize adverse impacts on the environment during the entire life cycle of the product.

Sustainability – From Fruit to the Glass

Our Values

A commitment to sustainable management, with which we balance the social, economic and ecological effects of our business activities, is a key part of the purpose of our business. We have also strongly internalized our way of working, according to which the company and its employees always work in a sustainable and socially responsible manner.



In addition to this, we are committed to traditional values, such as reliability, authenticity and openness. Flexibility and a pragmatic approach to decision making and our operations are also important values to us.

Our Sustainability Strategy

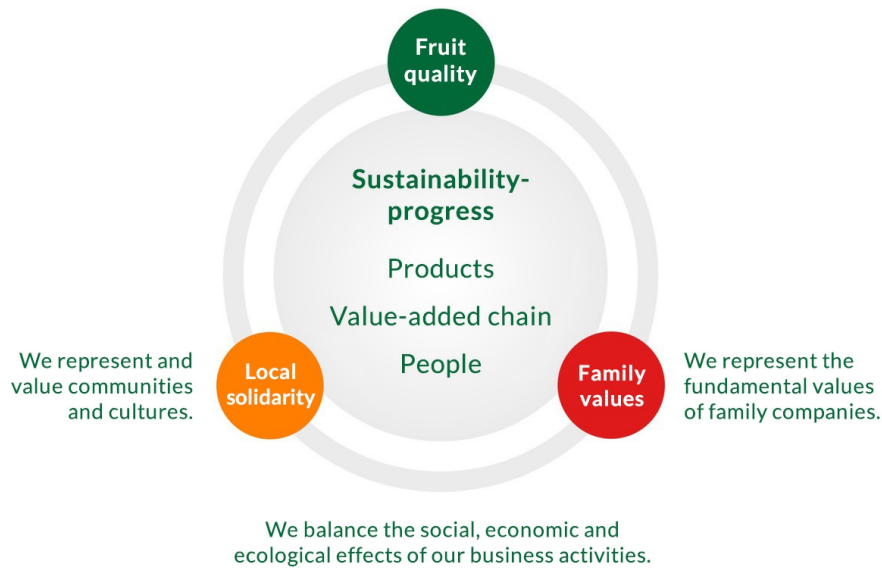
Our strategic approach focuses on three core sectors: products, value-added chain and people, where we strive for continuous progress through sustainable development. This includes three essential concerns for our company – fruit quality, values of a family enterprise and local solidarity. These factors are reflected in the establishment and implementation of sustainability objectives, initiatives and activities.

Our Purpose

We provide people with the best of the fruit for a healthy and enjoyable life. This is the motto of Eckes-Granini. It is based on shared convictions, the spirit of “Working together to explore new dimensions” as well as the corporate character and its employees.

Strategic structure: Sustainability

It is our objective to offer
fruit juices of the highest quality



We Take Responsibility

Products

Our public goal is to offer our consumers the best of the fruit and berries. For this purpose, we continuously strive to improve the sustainability profile of our products and our packaging.

- A large part of our liquid carton packaging and sales batch pallets and boxes are recyclable
- We are the first juice sector company in Finland to take into use the FSC label (the mark of responsible forestry)
- Ready-to-drink products packaged in PET bottles are in the Palpa beverage container recycling system
- Sugar-free versions of Marli Juissi, Marli Tarhurin berry soups and both Marli and Mehukatti syrups were launched in 2014 to provide lower-calorie beverage options for Finnish consumers
- Eckes-Granini Finland was also the first company in Finland to launch the naturally lighter stevia-sweetened fruit nectars and drinks under the Marli Vital 50 % less added sugar concept
- In 2017, the Marli berry soup, Marli Vital and Marli Juissi product series containing added sugar had the added sugar reduced by 20–30 %
- The Marli Wellbeing drinks, having low-calorie content (12 kcal/100ml) derived from fruit and berries only, were launched for the summer of 2017



**The mark of
responsible forestry**

Value-Added Chain

Our way of thinking is holistic – from the fruit to the glass. We pay special attention to the procurement of raw materials as well as production and logistics. Along with ecological and economic criteria, we examine social issues, such as working conditions and remuneration.

Our goals are:

- To reduce the total energy and water consumption, as well as waste water, taking account of any changes to the market or the production structure
- To commission the new steam heating plant in 2018 in cooperation with the other industrial companies in the Artukainen district and Oy Turku Energia-Åbo Energi Ab. A renewable energy-based energy plant is a greener way of generating steam.
- Juice concentrate procurement from only SGF Irma certified suppliers. SGF stands for “Sure-Global-Fair” and the aim of the organization is to secure safe and fair trading of genuine fruit and vegetable juices. As a result, they organize factory inspections for member companies and market surveillance of products.

People

People make the difference – we are convinced of that. For this reason, we consider it our company’s mission to create the conditions for our employees in which they can carry out their tasks successfully.

Our goals are:

- To improve quality of life by investing in an extensive health insurance plan
- A safe working environment: customized safety training every year / every other year
- To invest in safety on production lines
- To explore the possibilities for part-time retirement for older workers through special insurance
- To conduct regular personnel surveys for the collection of feedback and the discovery of development areas
- To have a stable and safe, long-term employer for the personnel (in 2017, we celebrated our 150-year journey in the field of beverage production in Turku)
- Annual social projects; supporting local children’s sports teams
- Between 2014 and 2016, employing teenagers aged 15 to 17 as brand ambassadors in social media

- To annually support the Nordic charity cycling event, Team Rynkeby God Morgon. In 2017, the event raised a total of approx. 8.8 million euros for the fight against childhood cancer. The sum raised in Finland through this event was approx. 567,000 euros, which was donated to Aamu Suomen Lasten Syöpäsäätiö, a foundation for the support of childhood cancer treatment, and Sylva ry, an association for the benefit of children and youth with cancer.

Corporate Responsibility

Corporate responsibility in sustainability means:

- Transparency
- Not only local activity
- Taking the wishes of consumers and customers into account
- Identifying problem areas



Environmental Management System – Actively Taking on Responsibility

Eckes-Granini carries its ecological responsibility. Everything which is good for the environment will also help the company develop. The pursuit of sustainability and responsible use of resources has for many years been an integral part of Eckes-Granini Finland's corporate philosophy.



Inside the Eckes-Granini group, Eckes-Granini Deutschland began to implement an environmental management system at a very early stage. In 1991 a system based on the DIN EN ISO 14001 standard was taken into use at the Nieder-Olm branch. Eckes-Granini Deutschland has carried out the internationally recognized EMAS environmental management system since 1996.

EMAS stands for "Eco-Management and Audit Scheme". The system offers companies in all industries convergent principles for environmental management, aiming at continuous improvement of the environmental performance. As a modern environmental management tool, EMAS is based on a voluntary corporate environmental management system and, therefore, it goes beyond prescribed legal requirements.

Eckes-Granini Finland's EMAS environmental system development began with an initial environmental review in 2014. Based on this review, an action plan was made for the fulfilment of the EMAS requirements. In 2015, an external environmental verifier audited the correspondence of the environmental management system with the EMAS requirements for the first time, whereupon Eckes-Granini Finland became the first beverage house in Finland to be granted the EMAS certification.

In 2017, an updated version of the EMAS regulation was published, containing the amended requirements of ISO 14001. For the fulfilment of the new requirements, an environmental review was conducted at Eckes-Granini Finland once more and, based on this, an action plan was created. The verification in view of the new EMAS requirements was performed in May of 2018.





To be part of the EMAS system, the company must inspect its operations, products and services to take into account their environmental impacts. A defined environmental policy and environmental program with targets, along with comprehensive indicators, must be reported regularly in the environmental statement. The process should take into account direct and indirect environmental aspects and their environmental impacts, as well as compliance with the statutory requirements. Furthermore, the EMAS system requires the continuous improvement of the environmental performance.

Active and sustainable investment in environmental protection is part of our successful business. For this reason, we continue to develop products, packaging, and operational procedures. Eckes-Granini Finland always strives to employ the best available technology for its operations. It is also important for a brand manufacturer to fulfill the ecological demands of the customers.

Eckes-Granini Finland is participating in this demanding process with this environmental statement. A full environmental statement is published every three years and, in addition to this, an update of the data is published annually. The environmental verifier checks each environmental statement and if the statement meets the detailed requirements applicable to it, it will be approved.

Environmental Protection Means

Responsibility

We take into consideration the requirements for environmental protection and occupational safety in the early stages of process and product development and planning.

We want to identify the risks to people and the environment in a timely manner, so that we can avoid accidents and operational break-downs.

Sustainability

We handle all resources sparingly and carefully, so that we can protect the environment by minimizing the amount of waste, as well as the burden on air, water and soil.

We choose the most economically appropriate method from the best available techniques.

Continuous improvement

Environmental protection is not a method, but rather a continuous process of improvement which we want to develop together with our employees, suppliers, customers, consumers and all other interested parties through open interaction. We work closely with the relevant authorities.



Networking

We expect our business partners to take ecological responsibility, and we take this into account in procurement.

We make sure that our main contractors, subcontractors and suppliers accept Eckes-Granini Finland's environmental guidelines.

Transparency

We carry out environmental protection in a manner in which responsibilities, roles and processes are transparent. We measure the environmental impact of our operations so that we can effectively evaluate our policy.



The employees' contribution

Promotion and implementation of environmental responsibility is part of our employees' job description. We expect each and every individual to internalize environmental protection as part of their own activities.

Trust

We rely on all our employees' own initiative and personal responsibility in carrying out our environmental policy.

Communication

Credible and transparent communication to employees, business partners and the general public is important to us. Consumers can contact Eckes-Granini Finland about environmental matters, either via the consumer hotline or the online feedback form.

Achievements in Environmental Protection

1994 A new environmentally friendlier production plant is taken into use

1995 Environmental issues taken into consideration as a support system in the self-monitoring plan

1995 Marli Oy becomes part of the liquid packaging board recycling system

2000 Oy Marli Ab becomes a member of the Environmental Register of Packaging PYR Ltd.

2000 Oy Marli Ab becomes a member of the Environmental Committee set up by the Finnish Food and Drink Industries' Federation



2001 Collection of plastic film to a separate baler

2004 A carton press is taken into use

2005 Sorting and recycling is improved and employees are trained

2005 Purchasing of a separate cardboard compactor

2005 The material utilization rate rises from 6 % in 2001 to 74 % in 2005

2006 Reuse of material becomes more efficient

2007 Material utilization rate rises to 90 %

2008 Joining the energy efficiency agreement scheme

2009 Placing waste sorting bins in the company conference rooms

2010 Mehukatti PET plastic bottles are added to the Palpa deposit-refund recycling system

2011 Pureed raw materials are moved from freezers to aseptic warm storage

2011 IFS certificate is awarded to Eckes-Granini Finland including an environmental responsibility section

2012 Launching Marli Vital products, which are naturally lighter, sweetened with stevia and contain 50 % less added sugar

2012 Launching Marli organic orange juice

2014 Reduction of the environmental load by changing to partly unprinted sales batch cartons (cardboard trays/boxes protecting consumer packages)

2014 The new Marli Juissi package is the first juice packaging in Finland with the FSC stamp which states that the carton material comes from responsible sources



2015 Brämhults smoothie products are sold in recyclable deposit-refund PET plastic bottles

2015 EMAS environmental certificate is awarded to Eckes-Granini Finland

2016 Replacing the air conditioning with an air source heat pump (office space approx. 440 m²)

2017 Joining the energy efficiency agreement scheme for the new period

2017 Switching completely over to the consumption of electrical power generated from renewable sources

2017 Team Rynkeby – God Morgon charity cycling for the benefit of seriously ill children



2018 Launching Mehukatti Luomu 2 dl children's organic juices

Environmental Aspects

The following description presents the significant direct and indirect environmental aspects which play an important role in Eckes-Granini Finland Oy Ab's environmental management system. The environmental impacts attributed to the aspects may be either detrimental or beneficial.

Utilities

Electricity, steam, district heating and water are supplied by local service providers. Utilities consumption is continuously monitored and there is a rapid response to changes in consumption. The company uses the best economically feasible technology and know-how so that the environmental impacts caused by production can be minimized. In addition, we are involved in the voluntary energy efficiency agreement system coordinated by the Ministry of Employment and the Economy.

Due to the process extension, utility consumption has gone up in recent years. However, we have found good new opportunities to reduce energy consumption: for instance, by reutilizing the water that is used to cool the cold chain products produced. These improvements are being implemented as part of the energy efficiency agreement measures. Moreover, a significant change for the better in terms of the environment is taking place in 2018, when biofuel (wood chips) instead of fossil fuels starts being used for producing the steam used at our factory.

Waste

Waste is sorted in the whole plant area, including by external contractors. Sortable waste includes carton packaging, glass, metal, plastics, cardboard, paper, confidential paper, organic waste, construction waste, disposable pallets, clean wood, energy waste, incinerable waste, hazardous waste and landfill waste.



All environmental management operators working with our company have a valid environmental permit. The environmental officer continually monitors and reports on the amount of waste. We seek to minimize the waste to be disposed of by developing different types of waste recycling and strengthening employee training in recycling issues. As a result of the positive development, the waste utilization rate in 2017 was 99 %. Product development and procurement activities always take into account how environmentally friendly and recyclable the materials are.

Logistics Emissions

The company does not have its own transport fleet, so transport is provided by external service providers. When selecting the transport companies, we take into account how environmentally friendly the transport fleet is. In logistics, optimal load planning and full loads are the goal. Electric forklifts are used for the company's internal transport.

A Compilation of Significant Environmental Aspects

	Function	Environmental aspect	Environmental impact
Direct	Juice preparation	Water consumption	Depletion of natural resources
	Juice preparation	Reuse of cooling water	Saving natural resources
	Juice preparation, packing	Equipment electricity consumption	Depletion of natural resources
	Pasteurization	Energy consumption (electricity, district heating, steam, cooling)	Depletion of natural resources
	Packing	Energy consumption	Depletion of natural resources
Direct/Indirect	Waste management	Further treatment of the waste generated (recyclable waste)	Saving natural resources
Indirect	Logistics: arriving material (maritime, road and rail transport)	Emissions into the air	Climate change, the consumption of natural resources, the degradation of local air quality
	Purchasing: logistics for raw material procurement	Emissions into the air, fossil fuel consumption	Climate warming, the depletion of non-renewable natural resources
	Energy production (external)	The environmental friendliness of the fuel used for steam production	Saving natural resources

Environmental Objectives and Targets

Outcome 2017

Development of more environmentally friendly energy technology

Target	The optimization of electricity and water consumption as well as waste water generation per 1,000 litres of juice produced
Action	Making an optimization plan for utilities
Gauge (overall target)	The optimization plan with actions is defined and drawn up
Responsible	Process Engineer
Schedule	2017
Baseline	Optimization plan data collection has begun
Outcome 2017	The process of optimizing and breaking in the new process functions lasted until summer 2017. The monitoring period of utilities consumption is not sufficiently long yet to provide sufficient data on the specific consumption of the new process installations during the different seasons. The optimization plan can be completed only after the actual situation of the utilities (i.e. consumption per 1,000 litres of juice produced) is known.
Target achievement	Data collection for utilities consumption still in progress

Improved recycling

Target	The improvement of waste sorting and recycling
Action	1. Providing employee training to increase environmental awareness about waste management 2. Providing training for non-employees who regularly work at the EGFin factory
Gauge (overall target)	What percent are trained (employees and cooperation partners)
Responsible	Environmental Officer
Schedule	2017
Baseline	53,8 % of personnel (own personnel and external workers constantly working at the plant) are trained
Outcome 2017	Our production personnel were trained earlier already, but it was decided to postpone the training of office personnel until March 2018. All external people were provided with training.
Target achievement	The necessary personnel were provided training
Target	The improvement of consumer recycling behaviour

Action	1. Activating the use of recycling labels on product packaging 2. Including recycling information in brand and corporate communication
Gauge (overall target)	Monitoring viewer tracking on the website's recycling subpages, target: 10 % rise / year
Responsible	Commercial Director
Schedule	2017
Baseline	The average number of recycling page viewers was 33 per month
Outcome 2017	The average number of recycling page viewers was 31 per month
Target achievement	The target was not reached in 2017 even though the recycling pages were renewed, moved to a new place and linked to it from the website home page. The suspected reason for the low number of visitors was a computation delay possibly caused by the website change.

Improved environmentally friendly logistics

Target	Transport optimization
Action	1. Considering the transportation contracts from an environmental point of view 2. Load planning optimization
Gauge (overall target)	Environmental considerations added to annual contracts
Responsible	Purchasing and Logistics Team Leader
Schedule	2017
Baseline	Contracts for 2017, including environmental appendices must be drawn up
Outcome 2017	Environmental appendices in all year contracts
Target achievement	Target met

Examining environmental matters of storage

Target	The development of ATEX zone safety
Action	1. Connecting the new aroma storage to the fire alarm system 2. Checking area classification documents
Gauge (overall target)	– The new aroma storage is connected to the fire alarm system – The area classification documents have been checked
Responsible	Environmental Officer
Schedule	2017
Baseline	The new aroma storage is located in a separate chilled space outside the building. The area is not connected to the fire alarm system. The area classification document has not been updated to correspond to the current situation.
Outcome 2017	Zone classification documents checked. Instead of the fire detector system, a leak sensor will be installed. Compared with a smoke or heat detector, this will proactively detect the birth of a possible problem considerably earlier.
Target achievement	For zone classification documents, the target was reached in 2017. Discussions with the competent authority on the fire detection system led to a better solution (a leak sensor). The sensor will be installed in the autumn of 2018.

Increasing environmental awareness

Target	Communication about environmental issues externally
Action	1. Environmental statement publication 2. Communication to internal and external stakeholders
Gauge (overall target)	The publication of the environmental statement on the company website
Responsible	Commercial Director
Schedule	2017
Baseline	The 2016 updates of the environmental statement not published
Outcome 2017	The update of the environmental statement was published on the company website. Environmental issues were communicated via different channels to personnel and stakeholders.
Target achievement	Target met

Targets 2018

Development of more environmentally friendly energy technology

Target	The optimization of energy consumption
Action	Optimizing utilities based on the recommended measures of the energy efficiency agreement and the company's own mapping
Gauge (overall target)	The implementation of measures in compliance with the annual plan for energy efficiency
Responsible	Process Engineer
Schedule	2018

Target	The utilization of renewable energy in energy production
Action	Commissioning a steam heating plant that utilizes renewable energy
Gauge (overall target)	The commissioning of a steam heating plant and its connection to the EGFin factory
Responsible	Process Engineer
Schedule	2018

Improved recycling

Target	The improvement of waste source separation
Action	Providing production personnel further training in source separation
Gauge (overall target)	The provision of further training for all production personnel
Responsible	Environmental Officer
Schedule	Q3 / 2018

Improved environmentally friendly logistics

Target	The engagement of transport businesses in environmental protection
Action	Adding environmental appendices to transport contracts
Gauge (overall target)	The addition of environmental appendices to annual contracts

Responsible	Logistics and Purchasing Manager
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Schedule	Q1 / 2018
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Increasing environmental awareness

Target	Communication about energy issues within the company
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Action	Participating in energy saving week
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Gauge (overall target)	Participation in energy saving week organized by Motiva
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Responsible	HR Specialist
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Schedule	Q4 / 2018
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Target	The dissemination of information about environmental issues beyond the company
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Action	Processing contacts coming to the company regarding environmental issues
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Gauge (overall target)	The processing of all contacts
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Responsible	Commercial Director
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Schedule	2018
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Statutory Requirements and Voluntary Commitments

The fulfillment of regulatory environment and safety requirements is key at Eckes-Granini Finland. The main environmental regulations for Eckes-Granini Finland are the Environmental Protection Act and Decree, the Waste Act and Decree, the Water Act, decree on packaging and packaging waste, the Chemicals Act and Decree, and the Rescue Act. For monitoring and assessing the statutory requirements, we make use of the acts registry service. Through this service, we are informed about new or amended regulations. We take into account these regulatory changes and verify their implementation quarterly.



Eckes-Granini Finland received its first environmental permit in 2004 from the Southwest Finland Regional Environment Centre. In December 2014 an application was made to check the open-ended environmental permit. The Regional Administrative Agency of Southern Finland transferred the application to the Environmental Protection of the City of Turku, which in October 2016 decided that the old environmental permit issued by the Southwest Finland Regional Environment Centre in 2004 will remain in force.

An environmental permit is granted on the condition that the following provisions of the permit are complied with:

- Emissions into sewer systems: Eckes-Granini Finland must be aware of the quality and quantity of waste water from the factory into the sewer system. The load caused by waste water must not compromise the city's waste water treatment plant operations. A separate access contract has been drawn up with the City of Turku for waste water management.
- Noise: The equivalent noise level caused by factory activities to the closest residential building yard areas or in other locations exposed to noise may be up to 55 dB during the day and up to 50 dB at night.
- Chemicals: Eckes-Granini Finland must be aware of the physical and chemical properties of the hazardous substances used and their effect on health and the environment. Whenever possible, a chemical or method which causes the least risk must be selected from the existing options. Chemicals and hazardous waste resulting from operations must be stored and handled in such a way that they present no danger to health or the environment.
- Waste: Waste must be sorted where it is generated, and it should be submitted to the proper handling, which has been approved in the Waste Act. Recyclable waste must be delivered for recovery. Hazardous waste must be dispensed to a facility which has an environmental permit which allows the reception and processing of said hazardous waste. Hazardous waste must be packed and stored properly.
- Monitoring and reporting:
 - The quality of the process waste water must be monitored on a monthly basis using composite sampling.
 - Eckes-Granini Finland must immediately inform the Environmental Protection of the City of Turku and the Turku Water Utility Company of any exceptionally large emissions and other environmental damage and disruptions to the extent applicable.
 - The factory must draw up an annual summary report for the Environmental Protection of the City of Turku.
- Best available techniques: Eckes-Granini Finland must monitor industry developments in the best available techniques and be prepared for the introduction of appropriate technology.
- Changes in operations: Significant increases, changes and terminations in production must be reported to the Environmental Protection of the City of Turku.

In 2017, Eckes-Granini Finland operated and reported in accordance with the conditions of the permit. Eckes-Granini Finland reports annually to the Environmental Protection of the City of Turku and the Finnish Packaging Recycling RINKI Ltd. In addition, we have an obligation to report to Statistics Finland and the Finnish Food and Drink Industries' Federation upon request.

By way of voluntary commitments, we are involved in the second period of the energy efficiency system, coordinated by the Ministry of Employment and the Economy. A new contract period lasting until 2025 commenced in 2017. Energy efficiency agreements are the nationwide way to promote efficient energy consumption in Finland. An energy review relating to the energy efficiency agreement was conducted at Eckes-Granini Finland and the plan is to implement during the contract period the applicable measures detected in the review. Having entered into the energy efficiency agreement, we report about energy issues to Motiva Oy annually.

Environmental Risks, Accidents and Disturbances

Eckes-Granini Finland's normal operation has not been shown to cause significant environmental, health or comfort risks on the site or in its vicinity. Normal operation does not have a direct impact on the aquatic environment, because waste water is discharged into the City of Turku's sewer system and it does not flow into the Pansionlahti Bay uncleaned. Direct activity does not cause emissions into air or soil. Under normal conditions operations do not cause noise or odours.

Environmental risks caused by exceptional and emergency situations have been identified at the site. The company has drawn up guidelines for actions to be taken in exceptional and emergency situations, such as instructions in case of fire or a chemical leak. An emergency plan for operations has also been prepared. All close call situations and accidents are documented and discussed and, if necessary, immediate action is taken. However, in 2017, no accidents or close call situations relating to environmental issues were reported.

In 2017, Eckes-Granini Finland operations caused one environmental deviation, which had to do with the high pH value of the waste water. The regularly conducted analyses showed that the pH level of the composite sample of waste water (collected on 11–12 April 2017) slightly exceeded the limit value. The tests conducted by the environmental officer did not find any reason for the high pH value, however, and the detected deviation was so small that it could even be explained by measurement uncertainty.

Employees and Interested Parties

Environmental protection is everyone's responsibility

In spite of the word 'management', modern environmental management does not mean that only a few decision makers at the top of the company are involved in the topic. On the contrary: The company's aim is to engage in environmental protection and quality management as a continuous development process in which all employees and interested parties are involved.



The most important aspects of employee information, training and participation regarding environmental issues at Eckes-Granini Finland:

- Up-to-date environmental information is relayed to the personnel through the company magazine, meetings, announcements, reports, info screens and intranet
- The individuals responsible for environmental protection are obliged and entitled to environmental training
- In the recruitment phase, employees receive orientation for Eckes-Granini Finland's environmental management system and environmental issues in practice
- The personnel are provided with further training relating to environmental issues in accordance with the training plan
- The Environmental Management Representative is a member of the company's Executive Board
- Through development idea activities, not only the employees, but the stakeholders as well, have the opportunity to participate in environmental issues development

Cooperation with the stakeholders is important in terms of environmentally responsible operations. Eckes-Granini Finland conveys environmental awareness, for instance, through its home page and labelling. The company is contacted by consumers via telephone and the home page. The contact form available on the home page gives the option of directly choosing environmental issues as the reason for the contact. In 2017, Eckes-Granini Finland was contacted by consumers a total of 14 times regarding environmental issues. Most of the contacts concerned packaging recyclability or the returnable bottle system. Efforts are made at all times to select the consumer packaging manufactured by Eckes-Granini Finland according to its final purpose, taking account of the environmental and recycling aspects. For example, nearly 90 % of the liquid carton packaging we use is FSC certified and all the materials can be disposed of at the RINKI Recycling Point.

Eckes-Granini Finland itself works actively with goods suppliers and subcontractors. Contractual cooperation partners are requested to sign an environmental appendix to the contract and subcontractors working regularly in the factory area are provided with training in waste sorting, among other things. Moreover, the contracting parties are audited.

Eckes-Granini has intragroup communication relating to environmental issues. For instance, the Group has a sustainability working group, which includes the representation of the Finnish organization as well.

How We Are Set Up



Timo Laukkanen

General Manager



Sakari Sainio

Supply Chain Director

Management Representative for Environmental and Quality Issues



Torsti Hurmerinta

Commercial Director

Sustainability Coordinator

Environmental Communication (PR)



Olof Lindberg

CFO

Risk Management Coordinator



Jukka Heimonen

HR Specialist

Coordinator of Environmental Training



Milla Ruohonen

Quality Specialist
Quality and Environmental Management Systems
Environmental Statement



Heikki Alajuuri

Technician
Environmental Officer
Chemical Use Supervisor
Environmental Accounting



Pertti Pasma

Process Engineer
Fire Protection Officer
Person Responsible for Energy



Leena Mikkilä

Product Development Manager
Management of Environmental Impacts of Novelties and Product Changes



Harri Juntunen

Logistics and Purchasing Manager
Management of Logistics and Purchasing-Related Environmental Impacts



Miika Aalto

Production Manager

Management of Production-Related Environmental Impacts



Esa Honkala

Production Engineer

Occupational Health and Safety Officer



Marko Hyttinen

Pre-Maintenance Technician

Food Defense Officer



Hannele Nurminen

Quality Assurance Laboratory Team Leader

Measuring Systems and Laboratory Chemicals



Nina Lindén

Brand and Communications Manager

Environmental Communication

Material Efficiency

Material efficiency is based on the factory-specific input and output results.

MANUFACTURING



Warehousing (raw materials)

Juice mixing

PRODUCTION



Packing

STORAGE



Number of articles: 245 units

Order dispatch

Collection and loading

Property

Biological diversity

Total area	71 808 m ²
Building area	28 623 m ²
Sealed areas (other than areas covered by buildings)	25 983 m ²
Green areas	17 202 m ²

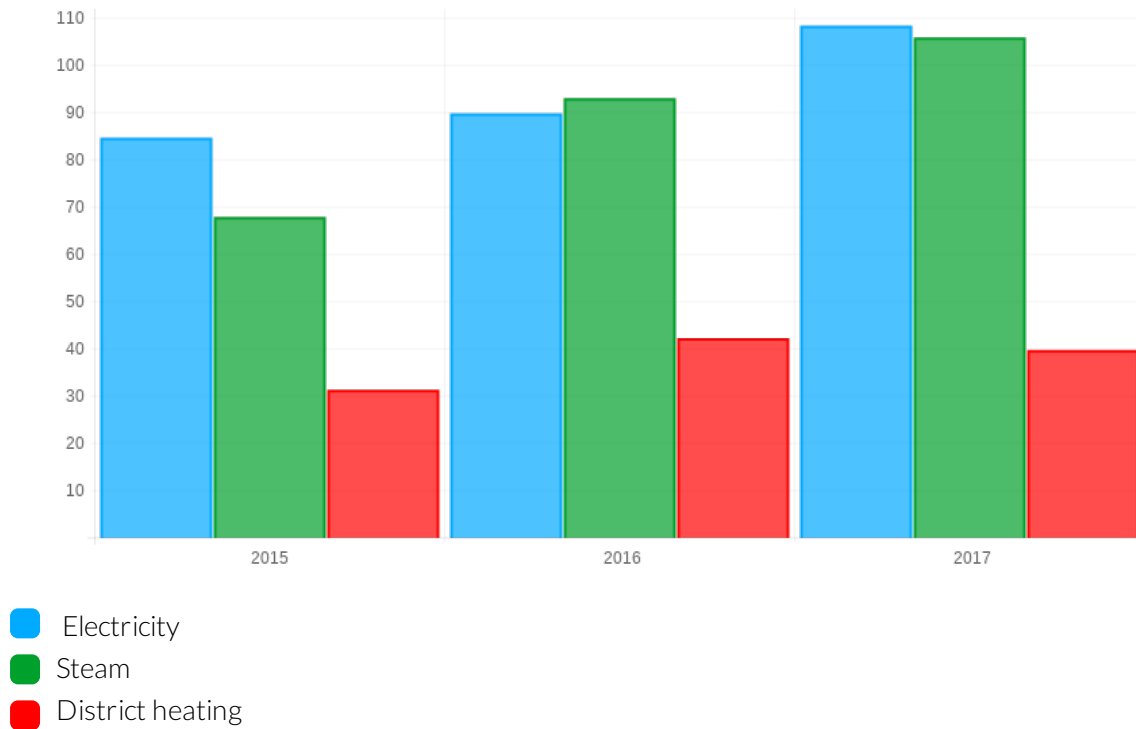
INPUT 2017		OUTPUT 2017	
Raw materials	12.4 million kg	Total liters	55.9 million l
Liquid carton packaging	80.7 million pieces	Liquid carton packaging	73.1 million pieces
PET bottles	1.0 million pieces	Bottles and canisters	5.7 million pieces
Glass bottles	1.4 million pieces	Waste water	118 765 m ³
HDPE/PE canisters	3.4 million pieces	Waste*	265.9 t
Closures	55.0 million pieces	CO ₂	No direct emissions
Straws	25.3 million pieces		
Labels	14.3 million pieces		
Corrugated cardboard	5.8 million pieces		
Auxiliary materials	155.4 t		
Water consumption	166 816 m ³		
Electricity consumption	6 057 717 kWh		
Steam consumption	5 918 452 kWh		
District heating consumption	2 224 530 kWh		

*Liquid carton packaging, glass, metal, plastic, cardboard, paper, confidential paper, organic waste, building waste, disposable pallets, clean wood, energy waste, incinerable waste, hazardous waste and landfill waste

Key indicators

Energy Consumption

Energy Consumption (kWh / 1,000 l juice)



Actual consumption

	2015	2016	2017
Electricity (kWh)	4 494 587	4 775 257	6 057 717
Steam (kWh)	3 604 274	4 947 623	5 918 452
District heating (kWh)	1 664 674	2 247 840	2 224 530
Production (million l)	53.079	53.158	55.873

In 2017, the total electricity and steam consumption and the consumption per 1,000 litres of juice produced grew with product portfolio diversification, smaller batch sizes and, above all, process extension (cold chain production). The installation and introduction of production technology with the related trial runs and validation alone increased energy consumption in 2017.

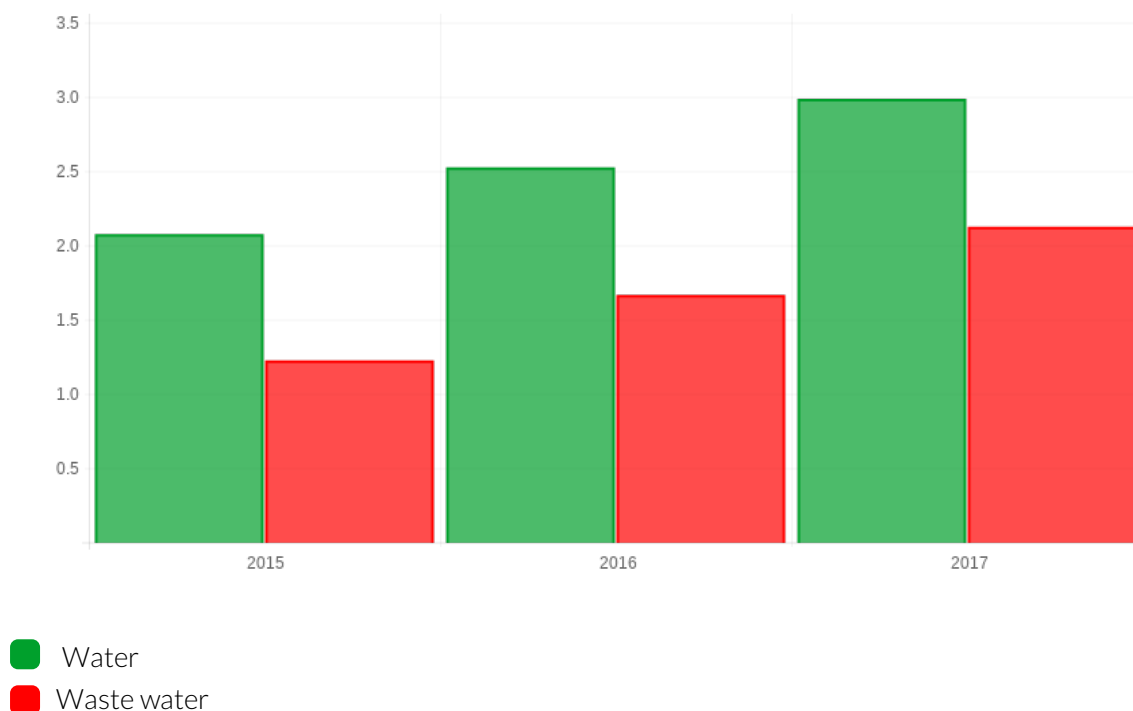
The amount of energy spent in the production of cold chain products is easy to illustrate by comparing the amount of energy spent on pasteurizing and cooling a single product when that product is produced for sales at a cool temperature and when it is produced for sales at room temperature. A smoothie can be used as an example. In this case, pasteurizing and cooling a cold chain product spends 390 kWh of energy, whereas pasteurizing and cooling to room temperature spends only 187 kWh. Consumption for this product in the case of cold chain production is over double compared with room temperature production.

The share of renewable Finnish wind power in electrical power was 100 % and, all in all, the share of renewable energy in total energy was 48 %. This share will grow significantly in the near future when the production of the steam used at our factory begins to make use of biofuel (wood chips) instead of fossil fuels.

The total consumption and consumption per 1,000 juice litres of district heating were at an average level comparable to the previous ten years.

Water Consumption and Waste Water Generation

Figures for Water and Waste Water (m³ / 1,000 l juice)



Actual amounts

	2015	2016	2017
Water (m ³)	110 691	134 444	166 816
Waste water (m ³)	65 114	88 728	118 765

In 2017, there was growth in the total volumes of water and waste water and the volumes per 1,000 juice litres produced. For the most part, this was due to product portfolio diversification, smaller batch sizes and, above all, the process extension (cold chain production). The production process of cold chain products spends a great deal of auxiliary cooling water.

In waste water analyses contamination was found to be average.

Emissions into the Air

No direct emissions

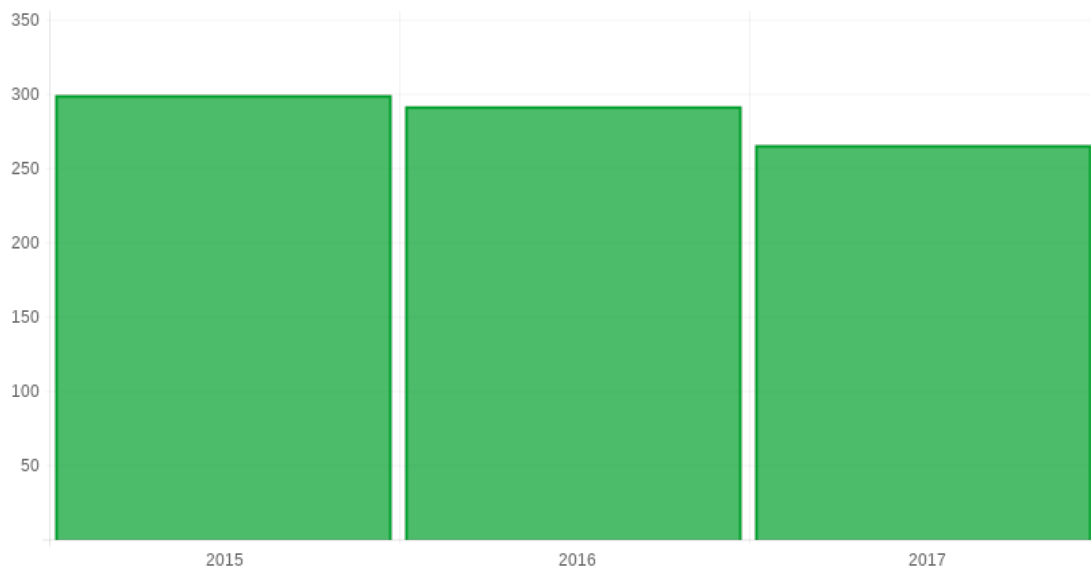
Consumption of the Most Widely Used Chemical (Base Wash Chemical)

	2015	2016	2017
Actual consumption (t)	42.0	36.0	54.0
Specific consumption (t / million l juice)	0.79	0.68	0.97

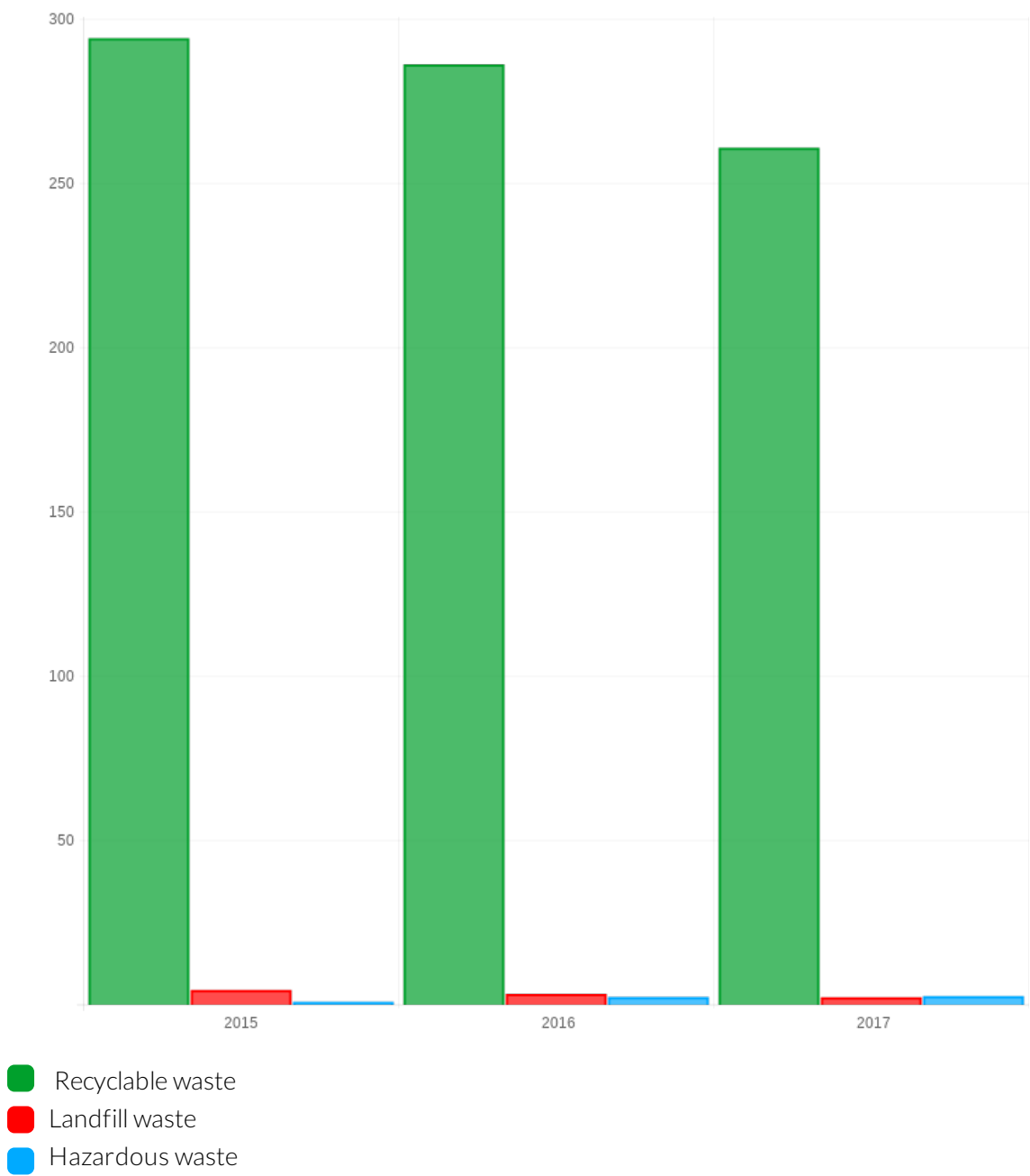
In 2017, the consumption of the base wash chemical grew with product portfolio diversification, smaller batch sizes and, above all, process extension.

Amount of Waste

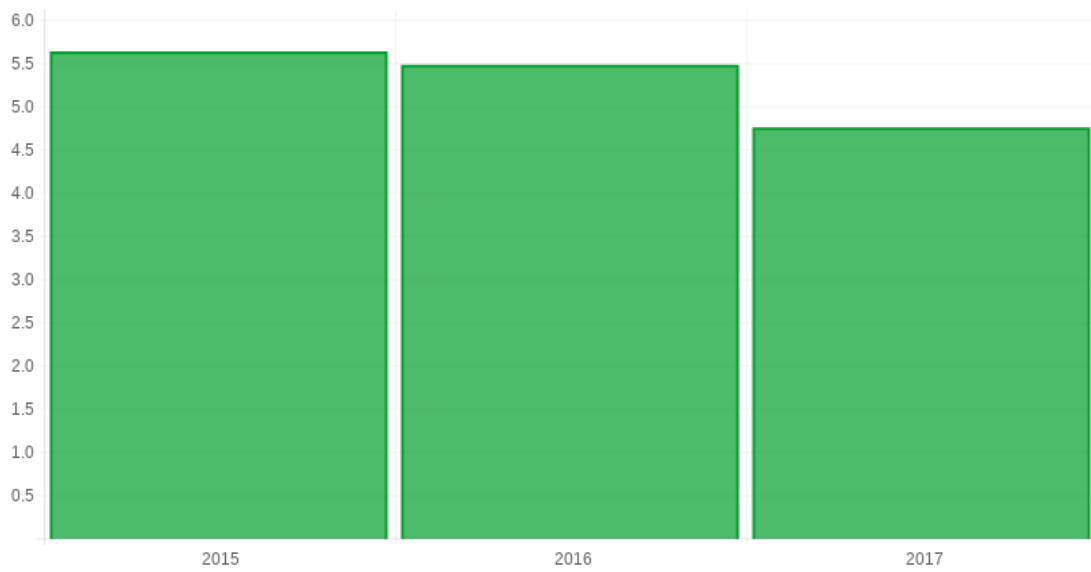
Total Waste (t)



Different Types of Waste (t)



Total Waste (t / million l juice)



Actual amounts

	2015	2016	2017
Total waste (t)	299.6	292.0	265.9
Recyclable waste (t)	294.3	286.3	260.9
Landfill waste (t)	4.5	3.3	2.3
Hazardous waste (t)	0.9	2.4	2.7

Recyclable Waste Types (t)

	2015	2016	2017
Liquid carton packaging	47.0	53.3	50.3
Glass	0	1.0	1.0
Metal	58.7	83.6	66.9
Plastic	44.0	40.4	27.7
Cardboard	31.8	34.3	26.4
Paper	1.1	1.7	1.5
Confidential paper	0.4	1.0	1.4
Organic waste	1.7	1.7	1.7
Building waste	2.0	3.1	2.9
Disposable pallets	46.9	29.1	50.1
Clean wood	9.8	3.4	0
Energy waste	43.1	25.9	25.5
Incinerable waste	7.9	7.8	5.5

Hazardous Waste Types (kg)

	2015	2016	2017
Aerosols	40	40	30
Secondary batteries	10	0	14
Flavors	0	0	0
Electronic scrap (WEEE)	40	340	473
Mercurial waste	0	0	0
Acid waste	20	0	100
Solid organic waste (paints, glues)	130	780	579
Solid oily waste	30	30	52
Used lubricating oil (waste oil)	60	870	190
Laboratory waste	0	0	20
Solvents	160	280	290
Fluorescent tubes	240	40	930
Primary batteries	120	20	18

Eckes-Granini Finland works only with the environmental management service providers which have an environmental permit issued by the authorities. The total amount of waste has been decreasing steadily for several years. In 2017, 99 % of all waste was recycled through various service providers. The amounts of hazardous waste and landfill waste were low in relation to the total amount of waste.

Environmental Protection – A Win-Win Situation

At Eckes-Granini Finland we know that environmental management pays off!

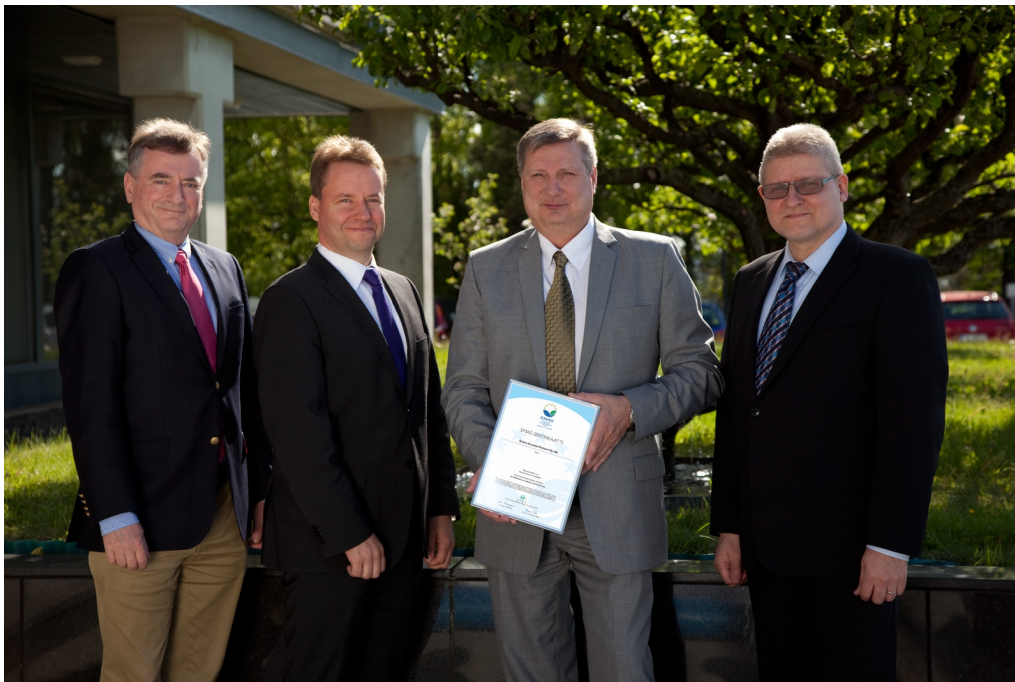
We are committed to our EMAS environmental management system and to continually improving the environmental performance.

Validation statement

As an accredited environmental verifier (FI-V-0001), Inspecta Certification has examined the information of the environmental management system and environmental statement of Eckes-Granini Finland Oy Ab. Following this examination, on 2018-05-31 the environmental verifier has herewith confirmed that both the environmental management system and the Finnish environmental statement are in compliance with the requirements of the EMAS Regulation (EC) No 1221/2009.

The environmental statement is updated annually.

The next full environmental statement will be published in 2021.



Glossary and Abbreviations

“EMAS decree”, or Regulation (EU) 2017/1505 of the European Commission, refers to the voluntary participation of organizations in an environmental management and audit system. **“EMAS”** is an acronym derived from the words, Eco-Management and Audit Scheme, and it is a management tool for organizations for the assessment, reporting and development of the environmental performance.

“Environmental policy” is the body of objectives and practices of the organization, including compliance with legislation and commitment to the continuous improvement of environmental performance. Environmental policy provides the framework for defining actions and specific targets, as well as evaluation.

“Continuous improvement of environmental performance” describes the annual continuing process of improvement through the measurable achievements of the environmental management system. This improvement relates to the company’s environmental policy and the environmental objectives in accordance with said policy and individual targets.

“Environmental aspects” are aspects of the organization’s activities, products or services which have or can have an impact on the environment. **“Significant environmental aspects”** mean those environmental aspects which have or can have a significant environmental impact.

“Direct environmental aspect” means an environmental aspect associated with activities, products and services of the organisation itself over which it has direct management control.

“Indirect environmental aspect” describes an environmental aspect which can result from the interaction of an organisation with third parties and which can to a reasonable degree be influenced by an organisation.

“Environmental impact” includes all of the positive or negative changes in the environment, fully or partially as a result of the organization’s activities, products or services.

“Environmental program” is a description of the planned and implemented actions to support environmental objectives (responsibilities and methods), as well as the time frames specified for the achievement of environmental objectives and individual targets.

“Environmental objective” is the overall objective set on the basis of the organization’s environmental policy.

“Environmental target” is a target based on the environmental objectives and defined in detail. It

should be as measurable as possible.

“Environmental management system” is part of the overall management system which applies to organizational structures, planning activities, responsibilities, operating instructions, as well as the procedures, processes and means used in the development, implementation, assessment and continued pursuit of environmental policy and management of environmental aspects.

“Verification” is a broad examination of the organization's environmental issues, environmental impacts and environmental protection measures, performed by an external verifier. Verification involves an examination of whether the environmental management system of the organization fulfils the requirements of the EMAS decree.

“Environmental verifier” is an individual or organization authorized to carry out environmental verifications in accordance with the requirements and methods defined in the EMAS decree. The verifier should not be linked to the organization to be verified.

“Sustainability” at Eckes-Granini means taking responsibility for ensuring that environmental, social and economic systems are preserved for future generations.

“EGFin” is the abbreviation for Eckes-Granini Finland Oy Ab.

“ISO 14001” is the environmental management system standard published by the global International Organization for Standardization (ISO).

“FSC (Forest Stewardship Council)” is an international non-governmental organization, whose goal is to promote sustainability in the use of global forest resources. It grants FSC certificates for products and services.

“SGF (Sure-Global-Fair)” is an organization which monitors the quality, safety, authenticity and sustainability of fruit and vegetable juice industry.

“Luomu” is an abbreviation of the Finnish word for “organic” and it refers to crop farming, livestock farming and the processing and marketing of food by monitored production methods bound by agreement. Eckes-Granini Finland is in the organic production monitoring system.

“IFS (International Featured Standards)” is the party that publishes and maintains international standards. **“IFS Food”** is the management system for quality and food safety used at Eckes-Granini Finland. The fulfilment of the requirements of this standard is annually assessed by an external auditor.

“HACCP (Hazard Analysis and Critical Control Points)” is a system to ensure a high-quality food production chain through the analysis of all possible critical points.

Publication Information

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