

ECKES granini

the best of fruit

ENVIRONMENTAL REPORT 2020–2023

Eckes-Granini Deutschland GmbH



EMAS

GEPRÜFTES
UMWELTMANAGEMENT
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Being responsible with the environment:
getting a little bit better every day!

Dear Readers,

Sustainability is deeply rooted in Eckes-Granini's corporate strategy – not just a trend that we might toss away at any moment.

The foundations were laid by Peter Eckes when he founded the company in 1857, as he was quick to realise that you have to treat nature with care if you want to reap the rewards in the long run.

Acting sustainably means balancing environmental, social and economic aspects and pursuing long-term interests. As a company that processes natural products, we rely on ecological balance. However, we are also part of a society in which we do business and for which we are jointly responsible.

Many of our successful measures and initiatives have been positive for the environment in which we live and the society in which we operate – and we have big plans ahead.

We are working hard to develop solutions that will preserve our precious planet for future generations, such as by ensuring carbon-neutral operations at our locations, planting trees through the "Plant for the

Planet" children's and environmental initiative, reducing our use of plastic, using recycled PET and making recyclable products from recycled materials, lowering the amount of added sugar in our products, investing in our employees, promoting fair working conditions in our growing regions and supporting seriously ill children through initiatives run by Team Rynkeby – hohes C.

Nowadays, shoppers are much more aware of contemporary issues. They are no longer just looking for the highest quality for the best price, but also a sense of ecological added value. We give shoppers many good reasons to choose our products. Whether it be *hohes C*, *granini*, *Die Limo*, *FruchtTiger*, *YO-Fruchtsirup*, *Pago* or *Eckes-Traubensaft* – all our brands come from a family business that is fully aware of its responsibilities and acts accordingly.

We have set the course for the future. We might not be perfect, but we are trying to get a bit better every day.

Dr. Kay Fischer
Managing Director of
Eckes-Granini Deutschland GmbH



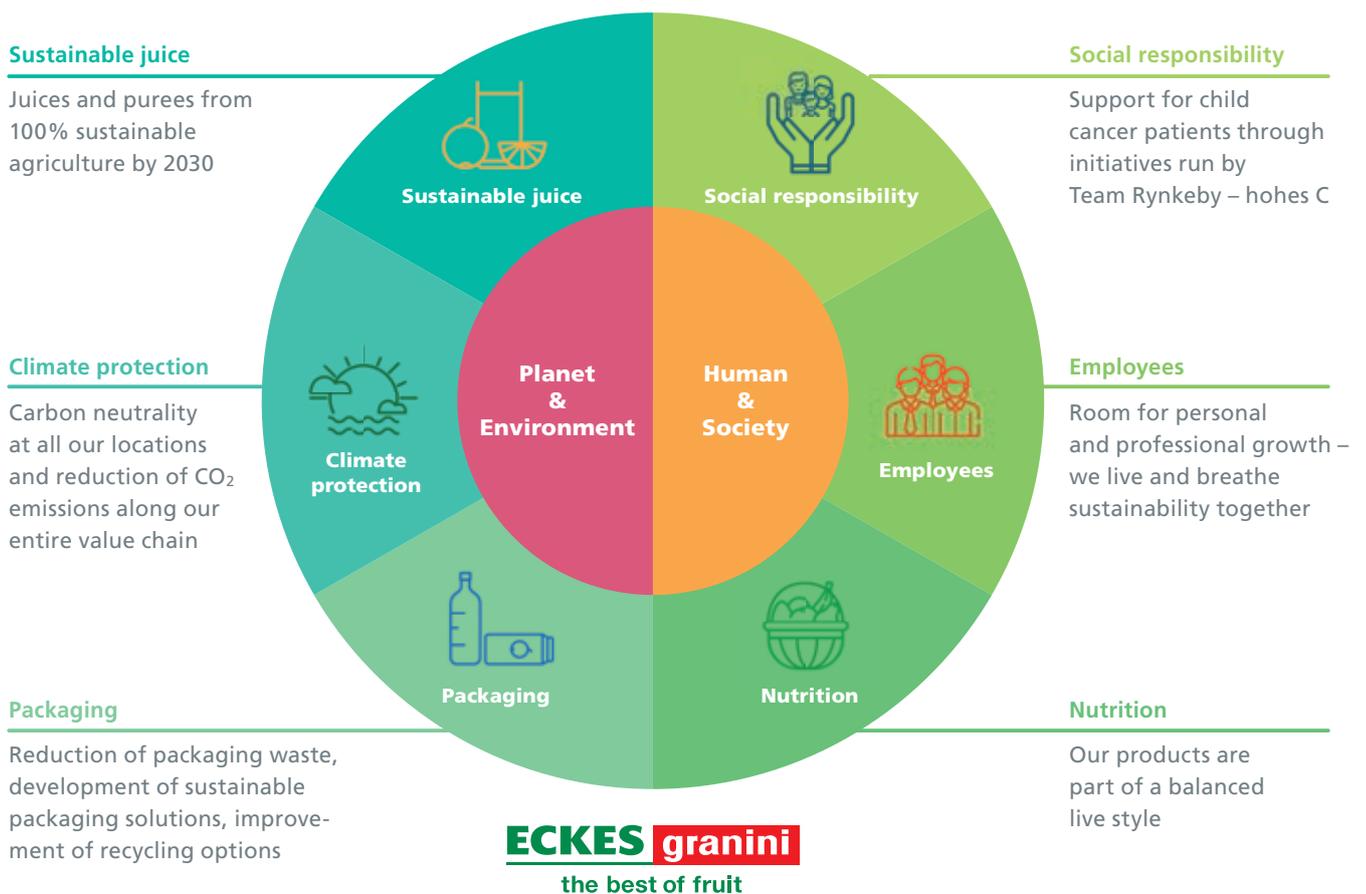
SUSTAINABILITY



Sustainability

Stepping up
to shape the future

Our sustainability strategy is built around two pillars – “Planet and Environment” and “People and Society” – and they each have three main areas.



Climate protection

Committed to our goals...

Everyone is talking about carbon neutrality – and we are making great strides towards our goals. As a member of the “Zentrum für Nachhaltige Unternehmensführung (ZNU)”, we are involved in the “ZNU Goes Zero” initiative, which aims to make participating companies carbon-neutral by 2022.

As part of this initiative, Eckes-Granini made a commitment to become carbon-neutral by 2020. And we did it! Eckes-Granini was proud to announce carbon-neutral operations at all three locations as early as 2019 – one year ahead of schedule.

We have set a precedent for corporate climate protection and demonstrated just how deeply rooted the issue of sustainability is within our group’s corporate strategy and just how important environmental and social aspects are to our family business.



Zentrum für Nachhaltige
Unternehmensführung
University of Witten/Herdecke

How does a company become carbon-neutral?

In order to reach the “net zero” figure required within the “ZNU Goes Zero” initiative, participating companies have to record and offset at least all emissions that fall under Scope 1 and 2 on the basis of international standards. This can be done by preventing or reducing CO₂ emissions and obtaining electricity from renewable energy sources. We first determined our carbon footprint and calculated our emissions originating directly from our stationary and mobile combustion processes (Scope 1), as well as our emissions from externally generated energy (Scope 2).

We then checked where we could reduce or prevent our carbon emissions. We had already taken a big step towards reducing our carbon emissions, as all our locations have been obtaining electricity from 100% renewable energy sources since 2017.

Our far-reaching measures along the value chain (i.e. in production, logistics and factories) clearly lay the foundations to achieve our goal of carbon neutrality. We focused on optimising our processes, saving water and developing new and more efficient systems at our production sites in Bröl and Bad Fallingbostel.





Plant for the Planet: 120,000 new trees

Nevertheless, there will always be emissions that we cannot prevent despite taking multiple measures, and we are off-setting such unavoidable greenhouse gases. We are really passionate about our cooperation with "Plant for the Planet".

The aim of this project, which originally started off as a school initiative, is to protect as many forests as possible and to plant lots of trees, because they absorb greenhouse gases.

The global efforts to plant 1,000 billion trees will not only absorb CO₂, but also encourage people to get involved with climate action. We are delighted to support the project. We plan to plant 120,000 trees on the Mexican peninsula of Yucatán over the next five years, which will absorb around 52.5 million tons of CO₂.



The trees there grow four times faster than in Central Europe. Our cooperation was launched when climate change activist Camilla Kranzusch (Go for Climate) visited Eckes Granini Deutschland in September 2019 and planted the first tree – a regional plum tree – on our premises with Dr. Kay Fischer (Managing Director) and Reiner Pfuhl (Supply Chain Director and CSR Officer).





LEAN & GREEN

Lean & Green 1st Star

— We are a founding member of the German “Lean & Green” initiative, which is certified and recognised by GS1 Germany. In 2013, we joined other companies in committing ourselves to a 20% reduction in greenhouse gas emissions in our logistics processes within five years.

This is done on the basis of a stringent action plan developed in line with the criteria specified by Lean & Green. It highlights our current carbon footprint within the logistics chain and describes the exact measures that will bring about a reduction in our warehousing and transport operations. Some examples include our communication with service providers via electronic platforms and training courses for economic driving.

— Thanks to the implementation of our action plan between 2012 and 2016, we were able to save 21.7% of greenhouse gas emissions in our logistics processes. Our achievements were recognised through the “Lean & Green 1st Star”.

The focus of our logistics strategy is on increasing eco-efficiency in our transport and warehousing operations.

— We are optimising our own fleet of vehicles while improving our warehouse management and that of our strategic shipping partners. All shipping agents underwent an audit (Green Check) to calculate their current emissions.

Experts from the Janz Logistics Academy then presented suitable measures to reduce their carbon footprint. The transport companies regularly inform us about the measures taken and the results and progress achieved over a six-month reporting period.



Lean & Green

We promote
green logistics



The road to the "Lean & Green 2nd Star" certificate

————— To achieve the "2nd Star", we had to satisfy additional criteria beyond the 1st Star requirements by maintaining our certified reduction of 20% in greenhouse gases, running a cooperative logistics project, launching a social initiative and

expanding the scope of our emissions measurements from 50% to at least 75% (a total of 75% of all greenhouse gas emissions are now reported in our logistics processes).



CO₂ reductions from 2016 to 2019

————— Maintaining a reduction of at least 20% in our carbon footprint was a challenge that was not easy to overcome, but we succeeded by taking various measures.

In 2018, for example, we had to respond to an increase in sales by distributing our finished goods to external storage locations and increasing our production volume assigned to co-packers to ensure timely customer supplies. This led to a rise in our CO₂ emissions.

In response to the increase in sales, we decided to launch a new warehouse and PET plant in Bad Fallingbistel and reduce the volume of finished goods procured from co-packers. Thanks to these measures and several others, such as our collaboration with *Kaufland*, we managed to bring our CO₂ emissions down to 24%.



Cooperation and commitment

Breaking
new ground



Cooperative project with *Kaufland*

— We have carried out a cooperative logistics project with our customer "*Kaufland*". Thanks to our cooperation, we managed to save another 25 tons of CO₂ in 2019 through optimisation measures.

Our cooperative project is all about sharing transport capacity!

Once our goods have been prepared at our central warehouse in Hennef, we use big data and artificial intelligence to calculate the exact time our deliveries will reach the customer. When the goods arrive at the *Kaufland* logistics centre, they can be unloaded without the need for further controls, which minimises the waiting time for our lorries. Unladen journeys and round trips are also a thing of the past, because our lorries only deliver goods to *Kaufland* stores in the immediate vicinity of the plant.

— We have managed to control the flow of goods by using real-time data, which has allowed us to use loading space more efficiently and reduce waiting times for our lorries.

We won the 2019 ECR Award for our successful sustainability cooperation with *Kaufland*; the annual award recognises cooperative projects between industry and retail in the consumer goods industry and logistics. The jury was particularly impressed by the efficient design and optimised flow of goods throughout our supply chain.

Our cooperation is facilitated by the digital service provider "*Shippeo*" and the shipping companies "*Meiberg*" and "*Glatzel*".

In addition to the reduction in our CO₂ emissions, the efficient utilisation of our lorry capacities has also allowed us to counteract the current shortage of skilled workers. Our partnership with *Kaufland* shows how we can bridge the future gap between the demand for lorry drivers and the existing talent pool over the coming years.





“Charity Tour de France”: social initiative by Team Rynkeby

Our social initiatives have also been included in the evaluation:

Team Rynkeby is our latest international flagship project.

It is a “Charity Tour de France” based on a simple but impressive idea – do something good for yourself, your health and others (children with cancer and their families).

After an 11-member team rode from Denmark to Paris for the first time in 2002, the project has since become the greatest charity cycling event in Europe.

Over 2,000 cyclists from seven different countries took part in the initiative in 2019, donating a record amount of 10.6 million euros.

Team Rynkeby – hohes C made its debut in 2019:

After an intensive preparation period, 54 cyclists and 15 technicians made their way from Nieder-Olm to Paris at the end of June, raising 160,000 euros for the German Childhood Cancer Foundation in the process.

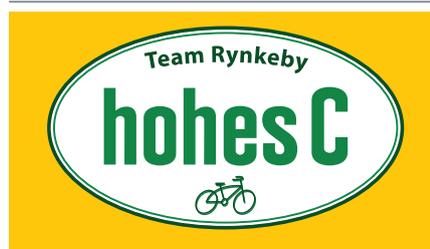


Illustration of CERTIFICATE in German



Eco-Management and Audit Scheme

In 1996, Eckes-Granini Deutschland GmbH introduced the internationally recognised eco-management and auditing system, EMAS, to enable third parties to monitor and verify its environmental protection work. EMAS stands for “Eco-Management and Audit Scheme”; it is a system that provides organisations from many different industries with uniform foundations to continuously improve their eco-management and auditing system and environmental performance.

As a modern tool in the field of environmental policy, EMAS (also referred to as the “eco audit”) relies on an organisation’s voluntary commitment to environmental concerns, and so it goes far beyond the binding environmental obligations.

All companies participating in the EMAS scheme have to review the environmental impact of their activities, products and services and create a structured framework.

They must regularly publish a report outlining their environmental policy and programme, including specific targets for the continued improvement of their environmental performance – and with a comprehensive presentation and evaluation of the environmental impacts (in numbers) and the improvements that have already been made.

Each environmental report is then audited by an independent environmental verifier and validated if it meets the stringent requirements of the auditing regulation. By publishing this environmental report, Eckes-Granini Deutschland GmbH is participating in the demanding procedure described above. In the following sections, we will not only present all the information and facts that are relevant for our EMAS-registered system; we would also like to offer a detailed look at our environmental awareness, our guiding principles and the factors that guide our environmental activities.



Products and brands

Well-rooted visions...

Eckes-Granini Deutschland GmbH is one of the leading producers of branded fruit beverages. Our sense of quality, enjoyment and health is reflected by our top brands *hohes C*, *granini* and *Die Limo*.

Our extensive range of products is rounded off with the children's brand *FruchtTiger* and the syrup brand *YO*. With over 600 employees at our production sites in Bröl (North Rhine-Westphalia) and Bad Fallingbostel (Lower Saxony) and our administrative offices in Nieder-Olm (Rhineland-Palatinate), Eckes Granini is a modern family business that is guided by traditional values, environmental concerns and sustainability awareness.

hohes C
reich an natürlichem Vitamin C

granini

**FRUCHT-
TIGER**





Healthy nutrition

The best of fruit for a healthy and enjoyable life ...

Nutrition is all about healthy living – consumers now have different expectations when it comes to their food and drink:

They try to minimise their sugar intake and look for natural foods to make sure they get enough important nutrients. However, enjoyment still plays a key role. At Eckes-Granini, we stay true to our motto –

“the best of fruit for a healthy and enjoyable life” – by developing innovative, healthy and enjoyable products that meet the needs of our consumers.

Reduction of added sugar

By 2020, we had already managed to reduce the amount of added sugar in our nectars and soft drinks by an average of 10%, and we are aiming to achieve a further reduction of 5% by 2025. This has always been a major concern of ours, even before the sugar debate entered the public eye.

It is not only important to reduce sugar levels, but also to wean our customers off the previous sweetness of our products. We are taking two different approaches here:

On the one hand, we are minimising the amount of sugar in our products, especially our granini nectars, as part of a gradual process. After all, we want to reduce sugar content while maintaining our excellent taste. We have to implement such changes in a planned and structured manner and, above all, in cooperation with our customers.

On the other hand, we are developing new products that contain less sugar from the outset:

In 2018, we launched *Die Limo Leicht*, a full-flavoured product with 50% less sugar than *Die Limo Original* and without artificial sweeteners, colours and preservatives. There are now four refreshing and bittersweet varieties in the *Die Limo Leicht* range.

This was followed by the launch of *Die Limo Ultraleicht* in 2020, containing only 9 calories per 100 millilitres and 75% less sugar.

The refreshing taste without added sweeteners is a real hit with consumers. As we care about our customers' opinions in everything we do, we conduct extensive consumer surveys, gather product ideas and work with consumers to develop optimal low-sugar formulas before the launch of each new product.

Additional health benefit

Our consumers can get their daily recommended amount of vitamin C by drinking just one glass (250 ml) of all *hohes C* products, and *hohes C PLUS* has been making an additional contribution to their daily well-being since 2013.

The recipe for success: 100% juice and a balanced taste with a special boost for your health.

The rich blend of nutrients includes antioxidants, provitamin A, iron, calcium + D vitamins, vitamin D, magnesium + B vitamins and zinc – and the range is constantly expanding. This impressive concept has cemented our status as the market leader in the *PLUS juice* segment.



HEALTHY LIFESTYLE

A slight digression: the sugar in our products

Fruit juice is a purely natural product: _____

No sugar is added to 100 % fruit juices; they only contain the fruit's own natural sweetness. We always refrain from adding sugar to such products.

Juice does not make you fat: _____

Drinking a glass of juice with your food reduces the spontaneous energy intake with the meal and has been shown to reduce body fat in studies.

Fruit juice is healthy: _____

As fruit juice contains precious vitamins, minerals and phytochemicals, it can contribute towards a healthy and balanced diet.

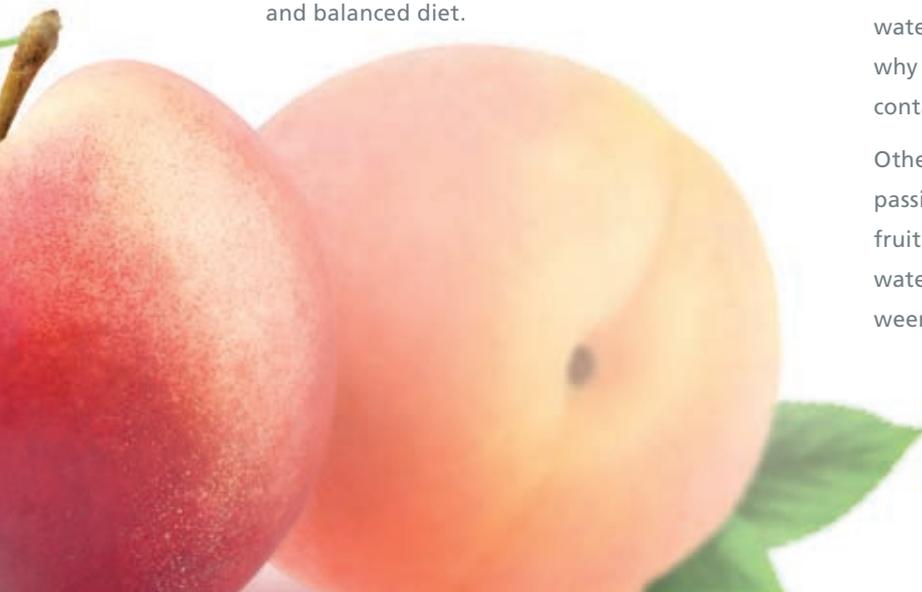
Juice does not contain any "empty calories": _____

For every gram of natural sugar, there are 20 mg of micronutrients, such as vitamins, minerals, carotenoids and bioflavonoids. If we take an intake of 2,000 calories a day as a reference, a 250 ml glass of *hohes C* orange juice provides a total of around 5 % of the recommended number of calories while covering the entire daily intake of vitamin C.

Our range of products includes both fruit juices and nectars, because 100 % fruit juice cannot be made from all fruits: _____

For example, bananas have solid flesh and too little water to make drinkable fruit juice from them. That is why our *granini Trinkgenuss* banana flavour is a nectar containing 25 % banana pulp, water and sugar.

Other fruits contain a lot of acid, such as sour cherries, passion fruit and currants. We can only make these fruit varieties enjoyable by refining their juice with water and sugar. The fruit content of nectars is between 25 % and 50 %.





SAFELY THE BEST

We source our premium-quality raw materials from all over the world.

_____ We only ever work with verified suppliers who are members of SGF International (Sure Global Fair), a monitoring system in the fruit juice industry. Thanks to the certificates of origin and traceability of our products, we can be extra sure about the quality of our raw materials.

_____ In addition, our suppliers are obliged to deliver authentic goods (according to the AIJN Code of Practice). Our juices must not contain any additives or allergens, and the ingredients must not be genetically modified. We also require transparency throughout the production process, top hygiene standards and the detailed documentation of our suppliers' processes.

The aim:

We want to ensure the high quality of our fruit juices and nectars by testing and analysing samples in stringent procedures.



Quality management

Production chain for the highest quality...

WHERE IT ALL BEGINS

When it comes to ensuring sustainability, we not only have high demands for ourselves and every employee, but also our suppliers and business partners. We source our raw materials from all over the world and always where they naturally grow best, so that we always get the best quality.

SGF – SURE-GLOBAL-FAIR



We only ever work with verified suppliers who are members of SGF International, a monitoring system in the fruit juice industry.

AIJN EUROPEAN FRUIT JUICE ASSOCIATION



We worked with the European Fruit Juice Association (AIJN) to develop a “Code of Business Conduct” that regulates compliance with internationally recognised social and environmental standards in the fruit juice industry. All our suppliers are subject to the Code of Business Conduct.

ECOVADIS



In order to review our standards and expand them where necessary, we are working with the independent institute EcoVadis to evaluate and audit all our suppliers from an environmental and social perspective.

SUSTAINABLE JUICE COVENANT



We have signed the “Sustainable Juice Covenant” (SJC) as part of the Sustainable Trade Initiative (IDH).

We are committed to continuously increasing the proportion of our sustainable juices, with the aim of reaching 100 % by 2030. That means:

- Ensuring sustainability when purchasing, manufacturing and selling fruit and vegetable juices, purees and concentrates
- Analysing and optimising supply chains
- Monitoring and auditing third parties
- Sponsoring social and environmental sustainability projects

100% SUSTAINABLY GROWN



We have reached an important milestone by procuring our oranges from 100 % sustainable sources. Oranges are the most important ingredient in many of our recipes.

But what is a “sustainable source”?

- The local workers are given fair wages, good working conditions, training courses and occupational safety
- Measures are taken to save energy, water and waste
- Chemical pesticides are replaced by biological alternatives and agricultural measures where possible
- There are numerous projects to support biodiversity in the growing regions

IFS



The “International Featured Standards” (IFS) are uniform food and product standards. They ensure that certified companies always meet their customers’ specifications and constantly work to optimise their processes. This creates quality, transparency and efficiency.

Bio Standard



Our *hohes C BIO* range bears the EU organic seal (according to DE-ÖKO-003):

This labels products that meet the requirements of the EU Eco Regulation.

Quality assurance

Our suppliers have to be audited by independent institutes and laboratories every year before they can qualify as suitable suppliers of our raw materials.

We use pre-shipment samples to check the quality of the raw materials before processing our products. We also visit our supplying companies on a regular basis to evaluate our partners and conduct risk assessments.



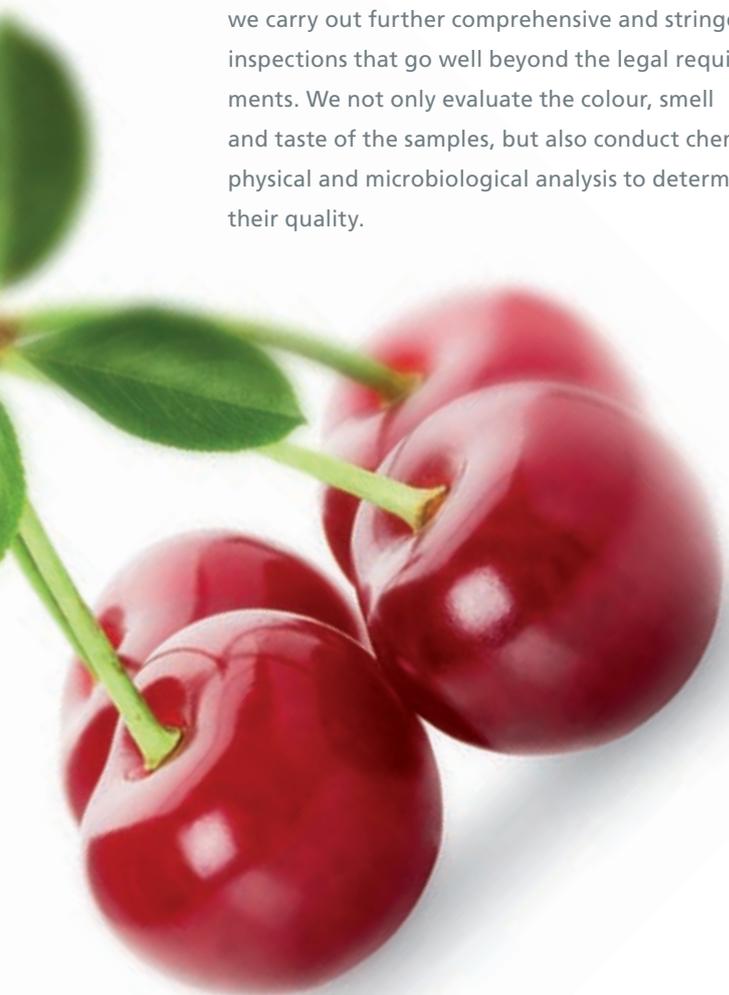
Suppliers and und raw materials

Once we have received our goods, we carry out further comprehensive and stringent inspections that go well beyond the legal requirements. We not only evaluate the colour, smell and taste of the samples, but also conduct chemical, physical and microbiological analysis to determine their quality.

Some of the main criteria used to determine the quality of the harvest and the hygienic conditions are spoilage indicators, such as lactic acid and ethanol, and concentrations of mycotoxins, such as patulin in pomes. Each batch is only officially approved after the best results have been achieved in these extensive tests.

The quality of our products is also ensured by testing during processing. Before our raw materials reach the production stage, they are put through stringent hygiene tests featuring extensive microbiological controls in our own laboratories.

The process is repeated during bottling. Each drink goes through up to 50 tests consisting of analytical, sensory and microbiological evaluations. In addition, blind tasting and comparisons are carried out with other products at irregular intervals.





Inspection by EcoVadis

Since 2014, we have also been working with the independent institute EcoVadis to evaluate and audit all our suppliers from an environmental and social perspective.

EcoVadis conducts its analysis and evaluations by using the documents provided and obtaining information from other reliable sources, such as NGOs and trade unions.

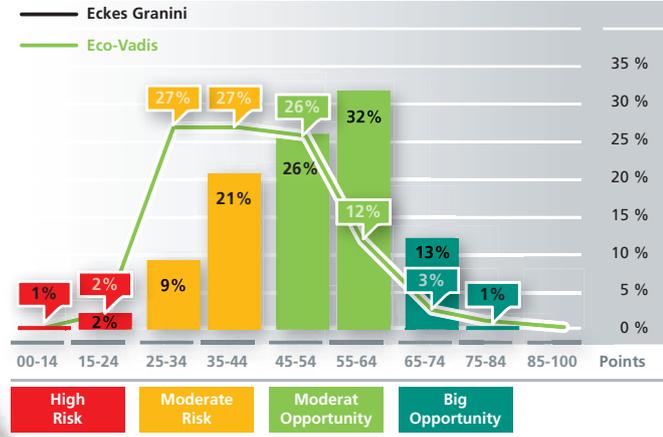
On the basis of these results, we carry our targeted discussions with suppliers in order to initiate further improvement measures.

Our average score has improved dramatically, jumping sharply from

_____ from 55.3 in 2018
 _____ to 61.1 in 2019.

Development

Distribution of EcoVadis score in 2019





Our target for 2030: 100 % sustainable juices and purees

————— Sustainability is a key issue for our company. We are making great progress and constantly adapting our measures to meet new statutory and voluntary requirements.

————— Last year, for example, we signed the “Sustainable Juice Covenant” (SJC), a concept established by the “Sustainable Trade Initiative” (IDH). This reflects our commitment to meeting the SJC sustainability standards with regard to the supply chain and fruit cultivation for all juices and smoothies in our range by 2030.

————— The global initiative aims to ensure sustainability when purchasing, manufacturing and selling fruit and vegetable juices, purees and concentrates. It offers the participating companies added value by optimising and certifying their supply chains with the support of the European Fruit Juice Association (AIJN).

It also launches and sponsors projects to promote social and ecological sustainability issues. We achieved the first goal of the SJC in summer 2019:

————— Our oranges are now procured from 100% sustainable sources. This is an important milestone, because oranges are the most important ingredient in many of our recipes. As we would like to give our consumers even more peace of mind, we are now gradually introducing the “100 % sustainably grown” quality seal for our products.

————— Our SJC commitment plays an important role, but it is just one aspect of the “Sustainable Sourcing Policy” at Eckes-Granini. This also includes our procurement guidelines, sustainable packaging materials, the increased use of rPET and our intensive cooperation with suppliers, which has been assessed by EcoVadis and SGF.



Quality management



What exactly is a sustainable source?

In addition to fair wages, good working conditions, training courses and occupational safety for the local workers, attention is also paid to the land and cultivated areas:

Measures are taken to save energy, water and waste, and the use of pesticides is limited to absolutely necessary cases.

In addition, numerous projects are carried out to support biodiversity in the growing regions. As we are not in a position to review every single grower ourselves, the farms are audited by third parties. The audits cover all aspects of sustainable agriculture.

Cooperation with Solidaridad

“Small holders, big opportunities” is the motto of the Brazilian farming project sponsored by the Eckes-Granini Group. Around 500 small-scale orange farmers in the so-called “Citrus Belt” of Brazil will be continuously trained in the application of more sustainable agricultural practices over the next three years. The sustainability project is being carried out on the ground by Solidaridad, an international non-profit organisation.

We are working with Solidaridad to help improve living conditions for smallholders and plantation workers in the long term. We are pursuing our goals by promoting more sustainable agricultural practices and strengthening the entire value chain.

Our aim is to improve the conservation of natural resources in Brazil while maintaining the competitiveness of small, family-run orange plantations.

Solidaridad

C O O P E R A T I O N

Variety of packaging

The right packaging for every occasion...

With PET bottles for on the go, glass bottles for restaurants and cartons for everyday family life, we have the right container and packaging for every situation. We find it really important to package our premium juices and nectars in a way that optimally preserves the vitamins and flavours while protecting the environment and natural resources as much as possible.

The following table shows the types of packaging we offer:

In the beginning we only used to sell our beverages in composite cartons and glass bottles. Our range of packaging was expanded with the introduction of the PET bottle in 1999, and it has since become our most

popular container. PET bottles have some great qualities that make them incredibly popular with consumers.

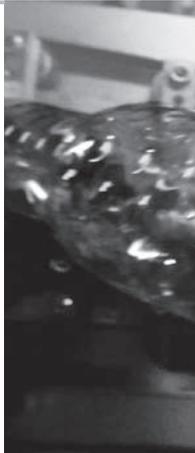
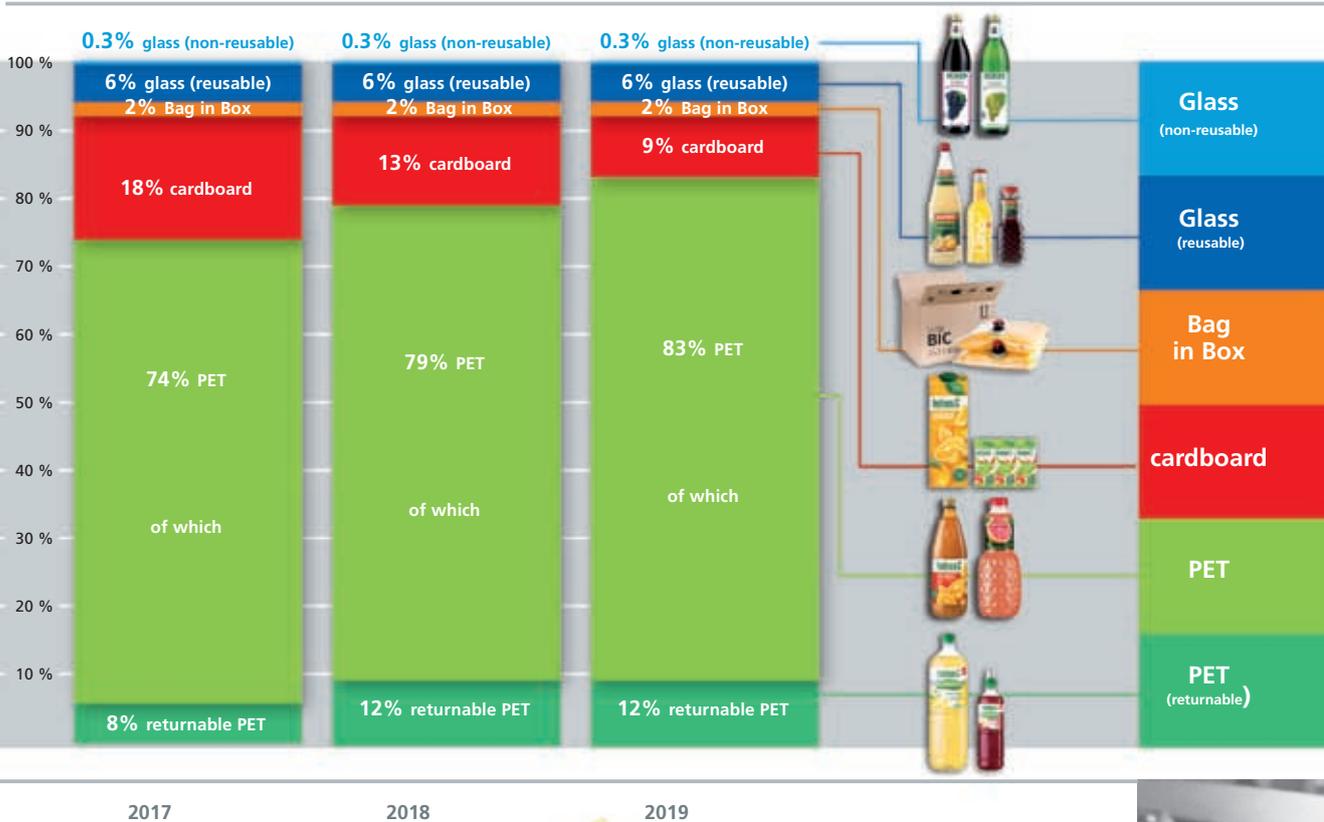
Cartons now account for 9% of our packaging.

We have been working with our partners at Tetra Pak to ensure 100% of our cartons come from responsibly managed sources. After all, our beverage cartons are mainly made of wood, which is a renewable raw material.



All Tetra Pak locations are certified according to the standards of the Forest Stewardship Council (FSC). FSC promotes the environmentally friendly, socially beneficial and economically viable management of forests around the world.

Breakdown of packaging types (share (%) of quantities purchased from EGD)





Conserving resources with recycled PET

PET is still the most popular packaging amongst our consumers in terms of handling, weight, disposal, sturdiness and personal safety.

This type of packaging also has key advantages over glass:

— PET is light and takes up much less loading space. This has a major impact on our CO₂ emissions.

Our aim is to keep PET within a circular economy and continue using recycled PET.

— We reached our first milestone in April 2019 by introducing our first sustainable PET bottle made of 50 % recycled PET (rPET) for our *hohes C BIO* range of unrefrigerated fruit juices.

— It should also be noted that 15% of the transparent bottle is made of renewable raw materials – and it is 100 % recyclable. The film on the six-pack handle is also made of 50 % recycled material.

We are also gradually changing our packaging for other product ranges:

— The *hohes C* 1.0 litre bottle has been produced with 25 % recycled PET since mid-2019.

— The *granini*, *Die Limo* and *FruchtTiger* brands have been following suit since 2020.

— We want to use 50 % rPET for all our brands by 2025.

The total amount of rPET used in our entire range has been 25 % since 2020. But we want more:

— We will continue to increase the percentage of rPET in our bottles over the coming years.

— We have already taken the first steps by producing a fully recycled pilot bottle, and our aim is to make our *hohes C* 1.0 litre PET bottle with 100 % rPET by 2021.



100% recyclable

Our PET bottles with a Plasmax coating are 100% recyclable.

This allows us to produce our bottles sustainably without any negative impacts on the circular economy.

CLEAR BENEFITS

- Optimal product protection
- Freshness and long shelf life
- Vitamin preservation
- Lightweight
- Very sturdy
- 100% recyclable
- Clear design

The first 100% recyclable safe deposit boxes for vitamins!

In 2010, we became the first country in Europe to introduce the new Plasmax technology for juices, transforming our PET bottles into real safe deposit boxes for vitamins:

— The inside of the bottle is refined with a wafer-thin, highly elastic and unbreakable layer of glass that ensures the ultimate preservation of vitamins and flavours. Plasmax packaging is 100% recyclable. We are also working on reducing the weight of our beverage packaging to conserve resources and reduce waste.

— We have already reduced the weight of our PET bottles by 20% since they were introduced without any loss of quality. This allows us to save 1,500 tons of plastic a year! We will also be introducing straws made from biodegradable materials by 2021.



Variety of packaging

Optimised packaging for more environmental protection

PET cycle: bottle-to-bottle recycling

As a family company with a sustainable mindset, we are committed to establishing a functioning circular economy.

Our aim is to produce PET bottles in a fully circular economy. In this so-called "bottle-to-bottle recycling" process, used PET bottles are crushed, cleaned and processed into PET granules to create new bottle pre-forms.

Just before the juice is bottled, the pre-forms are literally blown into new bottles at the factory.

We have had the necessary technology and expertise for this circular economy for many years, but the main challenge is to obtain the recycled materials in the best quality and required quantities.

We are working hard to ensure that we can offer fully recycled bottles as soon as possible.



How do we get our bottles back?

Our only bottles with a returnable deposit are those used for our carbonated beverages (*Die Limo, granini Fruchtschorle*), *hohes C Naturelle* and fruit juice drinks (*granini Sensation*). Our juice and nectar bottles are not part of the deposit system and are currently recycled in Germany using the yellow bin or bag.

As the law needs to be changed before we can put a deposit on all our products, we are working with the German "Dual System" on a project to separate our PET bottles from other plastic waste during sorting.

This will enable us to close the loop within the bottle-to-bottle recycling system and completely process the precious raw material contained in our non-returnable bottles into rPET.

However, we cannot get back all our PET bottles that way. We are in favour of placing a deposit on all our PET bottles, so that we can close the loop and ensure thorough sorting nationwide.



Eco-management and auditing system

Proactively taking responsibility



Eckes-Granini Deutschland assumes responsibility for the environment. After all, we know that our respect for the world around us will drive our company forward.

— We strive for sustainability and promote the responsible use of resources. In short:

Modern environmental protection has long been an integral feature of the corporate philosophy at Eckes-Granini Deutschland GmbH.

The company has set itself ambitious environmental targets and developed a comprehensive set of measures to achieve them, which meet the legal requirements and aim for continuous improvements in all areas. It is also important for a brand manufacturer to meet the environmental needs of its customers.

— Our company's active, sustainable contribution to environmental protection is also a crucial part of our success. That is why our fruit juice experts are always looking to improve our products, packaging and operational processes.

The responsible departments lay the foundations for us to achieve optimal savings and reductions, allowing us to ensure sustainability and reach our environmental targets with our full range of products.

As a family business, Eckes-Granini naturally has an eye on future generations – we are actively committed to modern environmental protection to preserve the world for our children.





ENVIRONMENTAL POLICY

————— Eckes-Granini Deutschland GmbH was quick to adopt an eco-management and auditing system, which has been gradually developed at the headquarters in Nieder-Olm since 1991.

————— The senior leadership team establishes the organisation's environmental policy and makes sure it is appropriate for the nature, scope and impact of the organisation's activities, products and services. The environmental policy includes a commitment to the continuous reduction and prevention of environmental pollution, as well as compliance with the relevant laws, regulations and other requirements to which the company is subject. It also provides a framework to establish and evaluate specific targets and objectives, which are documented, implemented, maintained and communicated to all employees. The public only has access to information relating to the environment.

————— In 1993, Eckes-Granini Deutschland GmbH introduced the internationally recognised eco-management and auditing system, EMAS, to enable third parties to monitor and verify its environmental protection work.

————— EMAS stands for "Eco-Management and Audit Scheme"; it is a system that provides organisations from many different industries with uniform foundations to continuously improve their eco-management and auditing system and environmental performance.

————— As a modern tool in the field of environmental policy, EMAS (also referred to as the "eco audit") relies on an organisation's voluntary commitment to environmental concerns, and so it goes well beyond the binding environmental obligations.



Environmental policy

Proactively taking responsibility

———— All companies participating in the EMAS scheme have to review the environmental impact of their activities, products and services and create a structured framework.

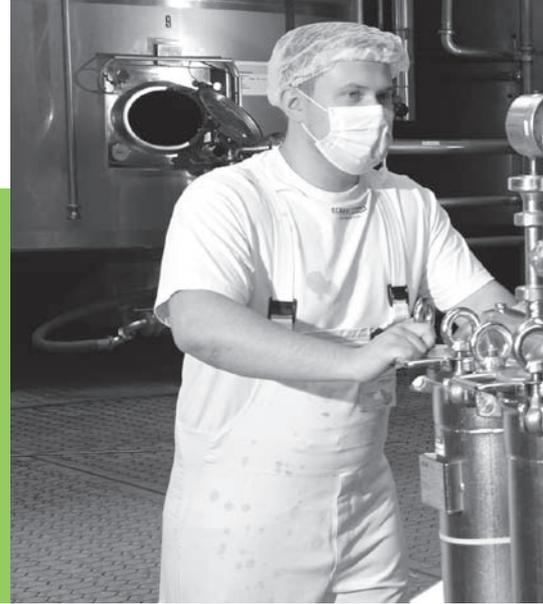
———— They must regularly publish a report outlining their environmental policy and programme, including specific targets for the continued improvement of their environmental performance – and with a comprehensive presentation and evaluation of the environmental impacts (in numbers) and the improvements that have already been made.



Principles

The term “eco-management and auditing system” is quite misleading, because it is an issue that not only concerns a few decision-makers at the head of the company. Quite the opposite:

We aim to include all employees in the constant improvement of our environmental protection and quality management processes.



All our employees are environmental protection and quality management officers.

————— In line with this principle, our commitment to environmental protection and quality management goes well beyond our observance of the law.

————— We are looking for real commitment that goes one step further. All our employees can identify with the issue, working conscientiously and proactively in accordance with our environmental and quality guidelines.

The success of our eco-management and auditing system clearly demonstrates that there is real substance behind our approach:

————— We have been constantly improving the quality of the soil, air and water for many years, and we have been reducing and preventing risks in line with the legal requirements.

————— Our company has undoubtedly become more economically efficient as a result. The success of our company and various locations has been recognised by external, independent bodies on several occasions (see “environmental milestones” on p.49).





The key aspects of environmental training for employees at Eckes-Granini Deutschland

The company's environmental protection officers and employees in environmentally relevant fields are entitled and obliged to attend training courses to promote compliance with legal and operational requirements.

The schedule of all environmental training courses is determined and organised in coordination with the HR departments on the basis of specific training plans.

The environmental management ambassador is a member of the executive board.

New employees are promptly informed about the environmental guidelines of Eckes-Granini Deutschland GmbH and provided with essential resources on the company's environmental concerns.

We also make the latest information available to our employees and the general public through channels such as our staff magazine, company meetings, notices, committees, reports by company representatives, Intranet, Internet and executive press releases.

We meet all requirements stipulated in Section 89 of the German Works Constitution Act (BetrVG) to ensure health and safety as well as environmental protection at work. We also comply with the employee participation provisions set forth in EMAS Annex II Part B B.4.

When holding team meetings and setting corporate goals, our employees are involved in the continuous improvement of our environmental performance and organisation.

The members of our executive board present key issues to new recruits as part of a special quarterly event held for new employees. We have also set up a Committee for Occupational Safety and Environmental Protection (ASU) for this purpose.





GUIDING ENVIRONMENTAL PRINCIPLES

Environmental protection means ...

... responsibility

We consider our health and safety requirements and environmental goals when planning our procedures and products and when purchasing our materials.

Our aim is to quickly identify risks posed to people and the environment to completely prevent accidents and operational mishaps.

... sustainability

We use all resources sparingly and carefully to reduce waste and minimise air, water and soil pollution.

We always examine whether the best available technology can be used in an economically justifiable manner.

... continual improvement

The protection of the environment is not a measure, but a process of sustainable improvement that we aim to continually develop in an open exchange with our employees, suppliers, customers, consumers and all other parties concerned.

We view objective criticism as a valuable driving force in this process. We work closely with the responsible authorities and see the environmental regulations applicable to our business, products and services as minimum targets.

... networking

We also expect our business partners to assume environmental responsibility and take this into consideration in our procurement system.

We ensure that our major contractors, subcontractors and suppliers always respect the environmental guidelines of Eckes-Granini Deutschland GmbH when carrying out assignments..



Guiding environmental principles



... transparency

We organise our environmental protection measures with transparent roles, responsibilities and processes. We gauge the environmental impact of our activities to enable the objective assessment of our policies.

This gives us a good idea of whether we are on track to achieve our targets, and we can quickly detect and correct any deviations.

... staff involvement

All our employees are responsible for promoting and "living out" a sense of environmental awareness at all levels. We expect everyone to incorporate environmental protection into their daily work.

... trust

We trust all our employees to proactively assume responsibility when implementing our environmental policy.

... communication

We attach great importance to our open and sincere communication with our employees, business partners and the public.



Direct environmental factors

The protection of the environment in our day-to-day operations is a process influenced by many different factors.

The following description outlines the direct and indirect environmental factors facing Eckes-Granini Deutschland GmbH and the approaches taken by the workforce. You can find key figures and explanations for each location on the following pages.



Hazardous substances/water-polluting substances

According to the German Water Resources Act (WHG), the German Industrial Safety Regulation (BetrSichV), the German Chemicals Act (ChemG) and the German Ordinance on Hazardous Substances (GefStoffV), many auxiliary and operating materials are considered to be hazardous substances due to their properties.

Hazardous substances are currently divided into three water hazard classes (WHC):

WGK I Slightly hazardous to water

WGK II Hazardous to water

WGK III Highly hazardous to water

Almost all the materials and water-polluting substances mentioned in this environmental report can be classified as WPC I or WPC II. The majority of them belong to WPC I.

A significant environmental impact and challenge is posed by the extensive use of peracetic acid at two PET facilities at our site in Bröl. A new glass filling system was launched at our Bröl site in spring 2020.

In autumn 2019, construction work began on a new warehouse at our site in Bad Fallingbostal. The automated storage system can hold an extra 6,000 pallets of finished goods. In addition, a second new PET system was launched in Bad Fallingbostal in 2019. Similar to the dry technology installed in 2016, the new system is based on hydrogen peroxide.

Hydrogen peroxide breaks down into pure water and oxygen; it is not classified as a substance that is hazardous to water. Flavouring / essences, laboratory chemicals, detergents, disinfectants, oils, fats and glues are the main hazardous substances used in the production process.

All hazardous substances are recorded in registers. The safety data sheets and operating instructions are available in accordance with Section 14 GefStoffV. All employees who come into contact with hazardous substances have to attend internal and external training courses on an annual basis. We handle and store hazardous and water-polluting substances in accordance with the statutory requirements.





ENVIRONMENTAL FACTORS

Recyclable materials

Different types of waste are collected separately at all our sites. The categories of waste include PET, soft packaging, glass, cardboard, paper, film, oil and grease from separators, resources containing oil or grease, scrap electronics and metal, rubble and wood.

The volumes of waste are recorded and evaluated by our waste disposal officers. We have collection systems to enable the separate disposal of different types of waste.

We document our legal compliance in verification folders, which also contain waste disposal agreements, applications and certificates. We are always looking to prevent and recycle waste – from the purchasing to the processing of auxiliary and operating materials.

Our waste disposal officers also include our waste disposal routes – from the producer to the disposal company – in our regular reviews. All our activities are guided by the principle of recycling instead of disposal.

Energy

All our sites source their electrical power and gas from the public grid.

Steam and hot water are generated by our own boiler systems, which mainly run on natural gas.

Light oil is now only partially used to power small-scale equipment in some buildings (e.g. emergency generators, small compressors) and for the pilot running of boiler systems in emergency operations as a result of gas shortages.

No permit is required for the furnaces operated at our sites.

However, we do have the necessary authorisation to operate them. The proper functioning of the boiler systems is guaranteed by our in-house boiler operators, and they are regularly maintained by specialist companies. We have in-house emissions control officers at all production sites.





Direct environmental factors

Water/sewage

Our facilities in Nieder-Olm source water exclusively from the local supplier.

Our sites in Bad Fallingbostel and Bröl obtain some water from their own well systems.

A percentage of our drinking water goes into products as treated water (ion exchanger and reverse osmosis). Our well water is mainly used as process water and a coolant that can be reused several times during circular processes. Municipal water is also used as supply water during the pressing process in Bröl.

Whenever the well water in Bad Fallingbostel meets the standards of drinking and mineral water, it is also used to produce our products. All waste water from our sites in Bad Fallingbostel and Nieder-Olm is channelled into the public sewage system as domestic waste water. All waste water produced at our site in Bröl is taken to our in-house treatment plant, where it is purified in an upstream anaerobic process. Many of the organic sewerage constituents are broken down to produce biogas.

We have been harvesting waste water to generate electricity using our very own biogas turbine at our site in Bröl since 2019. We take samples of our waste water to guarantee its purity in accordance with the local waste water regulations. The resulting sewage sludge is drained and composted.

Exhaust gases

Our goods are delivered and collected by shipping companies and our own lorries. Our internal logistics is ensured by diesel, gas and electric forklifts.

Radiation sources

The bottling facilities at our site in Bröl are fitted with an inspection machine that scans filled glass bottles for foreign objects. This system works with X-rays in strict compliance with the German Radiation Protection Ordinance (StrlSchV). The X-rays do not affect the packaging or product.





Noise

We meet the reference values outlined in the German Technical Guidelines for the Prevention of Noise Pollution (TA Lärm) at all our sites. Most of the noise emissions occurring during production are mainly caused by the bottling process. We take regular measurements and document the results in a noise level log.

There are no workstations at any of our sites where the noise level is permanently above the legally permissible limits.

Hearing protection is available to all employees and consistently worn. The few extremely noisy areas are marked throughout.

Emissions (from the combustion of natural gas)

As regards the combustion of natural gas, all our measurements fall below the legal reference values.

The amounts have been calculated on the basis of our energy consumption and burner manufacturers. The details provided by the burner manufacturers and gas suppliers are used as the basis for assessment.

Coolants

All our newly acquired cooling systems feature state-of-the-art technology and use coolants that are not harmful to the ozone layer. We always exercise special care when using coolants. Our systems are regularly inspected and maintained.



Environmental relevance



Potential influence

█ High environmental relevance, urgent need for action
█ Medium environmental relevance, medium need for action
█ Low environmental relevance, low need for action



Direct environmental impacts

Direct factors	Environmental impact
1 Waste water	Channelling of waste water into bodies of water and groundwater
2 (Air-polluting) emissions	Noise; greenhouse effect; reduced air quality
3 Waste	Soil contamination; pollution of air, soil and water during processing; land use; destruction of natural habitats
4 Noise	Noise pollution caused by production; transport; health impact
5 Soil pollution	Groundwater contamination; dangers for flora, fauna and people
6 Use of hazardous substances/ water-polluting substances (peracetic acid and coolants)	Soil contamination; human toxicity; ecotoxicity; groundwater contamination; loss of biodiversity
7 Water consumption	Water abstraction; shrinkages; channelling of water into the Brölbach tributary; groundwater contamination; water pollution control
8 Energy	Resource consumption; greenhouse effect; pollution
9 Visual impairment (Hochregallager)	Land use; soil sealing
10 Accidents, emergencies, damage	Aquatic ecotoxicity, contamination of soil, air and water loss of biodiversity
11 X-rays	Helath risk by increased levels of radiation

Direct environmental impacts

Environmental factors

creating an overall picture ...



Indirect environmental impacts

	Indirect factors	Environmental impact
1	Product-related impact (design, development, packaging, transport, use and recycling / waste disposal)	Greenhouse effect; resource consumption
2	Environmental conduct and performance of contractors, subcontractors, service providers and suppliers	Greenhouse effect; resource consumption
3	Capital investments, loans and insurance services	Efficiency measures for energy and resources
4	Administrative and planning decisions	Efficiency measures for energy and resources
5	Marketing and sales	Use of traffic areas; noise emissions; air pollutants; utilisation of resources; greenhouse effect
6	Range of products	Consumption of resources
7	Energy production	Utilisation of resources
8	Water supply	Utilisation of groundwater, spring water and surface water
9	Sewerage	Channelling of waste water into bodies of water; by sewage sludge incineration
10	Waste disposal	Land taken up by landfill sites; air pollutants caused by incineration
11	Upstream and downstream production	Air pollutant emissions; land use; utilisation of resources and groundwater, spring water and surface water; waste water disposal; other environmental impacts
12	Heavy rain	Raised water levels, flooding
13	Hillside location	Landslide

Environmental factors/definitions

Direct environmental impacts

- 1 **Waste water:** At both our production sites in Bröl and Bad Fallingbostel, there is a risk of polluted water being channelled into nearby bodies of water and groundwater. Our employees are trained in handling substances that are hazardous to water.
- 6 **Use of hazardous substances:** As hazardous and water-polluting substances are used at our production sites, there is a risk of soil pollution and groundwater contamination. The use of hazardous substances may also pose a risk to the health of our employees.

We counteract this risk by assigning hazardous substance officers to each of our production sites. Other employees are responsible for maintaining hazardous substance registers at each site. All our employees attend regular training courses to learn how to handle hazardous substances. Furthermore, the substances in question are only ever stored in a closed area intended for that very purpose. Appropriate safety guidelines can be found on our Intranet.
- 7 **Water consumption:** Water consumption: By extracting water from wells located on our production sites, we can prevent local bodies of water from drying out. The extraction of water has been approved by the authorities and restricted to a specified amount each year.

Furthermore, purified waste water is channelled into the Brölbach tributary from our site in Bröl. Our employees are trained how to manage their water consumption.
- 8 **Energy:** Our energy consumption is continuously reduced; this has been identified as one of our environmental goals. We are implementing various energy efficiency measures to hit our targets. Eckes-Granini Deutschland GmbH uses 100 % green hydroelectric power.

Indirect environmental impacts

- 1 **Product-related impacts:** Eckes-Granini Deutschland GmbH is aiming to reduce the weight of its beverage packaging as an environmental goal. The reduction of our packaging weight will conserve resources and minimise waste. At the same time, we are looking to increase the amount of recycled PET (rPET) in our packaging materials to 50 % by 2025.
- 2 **Environmental conduct and performance of contractors, subcontractors, service providers and suppliers:** Our suppliers must observe the environmental guidelines of Eckes-Granini Deutschland GmbH. They are certified by an external third party.
- 5 **Marketing and sales:** We use lorries to transport our goods. However, all our lorries meet the Euro 6 emission standards to minimise pollutant emissions and our lorry drivers take part in an "Eco Drive" training course to learn about environmental issues. Thanks to our new warehouse with 6,000 pallet spaces in Bad Fallingbostel, we do not have to relocate as many goods.
- 11 **Upstream and downstream production:** The cultivation of our raw materials has various environmental impacts. Our suppliers are certified by an external third party. The environmental guidelines of Eckes-Granini Deutschland GmbH are observed. A 100% sustainable juice is planned by 2030.
- 12 **Raised water levels:** Heavy rain and constant precipitation can lead to raised water levels in the Brölbach tributary at our site in Bröl. The water is channelled into the tributary via a drainage basin. As the discharge basin has a higher altitude than the Brölbach tributary, there is enough hydrostatic pressure to guarantee the drainage of waste water when water levels rise. Therefore, there is no risk of flooding on the company premises.
- 13 **Hillside location:** As the forest at our site in Bröl is located on a hillside, heavy rain may result in a landslide that would flush trees onto our company premises and block our escape routes. This would particularly affect the areas around the hazardous materials warehouse and the area behind the shipment loading hall.

We regularly reforest the area to solidify the ground and counteract the risk of landslides and soil erosion.



ENVIRONMENTAL ASPECTS

List of interested parties and their requirements	
Understanding the requirements and expectations of interested parties who are relevant for the EMS	
Stakeholder	Requirements (Identify requirements and deduce resulting binding obligations)
Employees	Education and training, responsibility, fair remuneration, good working, team spirit, right to a say, provision of information
Owners#	Continuity of the company, good image, safety
Residents/community/neighbourhood	Low noise pollution and air contamination, tax revenues, involvement in community
Investors and potential investors	Continuity of the company, good image, profitable growth, safety
insurance companies	Insurance premium with calculable risk
Authorities	Fulfilment of official, legal and planning requirements, commitment to going beyond legislation
Customers	Quality inspections and assurance, long-term business relations, certified management systems, fair pricing policy
Contractors	Long-term business relations, greater cooperation
Suppliers/service providers	Long-term agreements, planning security, workload, greater cooperation
Associations	Working together, political commitment
Competitors	Fair competition, compliance with the German Fair Trade Practices Act (UWG)
Media/public	Provision of Information, willingness to engage in dialogue
Consumer protection organisation	Quality inspections and assurance, fair price policy, transparent labelling

Network of responsibility

How we are organised



At Eckes-Granini Deutschland GmbH, the organisational structure for environmental protection is a versatile and intricately networked body – it is “like” a network of responsibility that guarantees communication and control.



The main person in charge of environmental management at Eckes-Granini Deutschland GmbH is its Managing Director, Dr Kay Fischer. Andreas Niesig (Supply Chain Manager) is a member of the executive board. He also ensures that annual internal audits are conducted at the sites in Nieder-Olm, Bröl and Bad Fallingbostel.

The results of the internal audits are then used to carry out an annual management review for the two sites and the entire organisation. Lutz Hofmann (Head of Safety, Environmental Protection and Facility Management) acts as the Environmental Management Officer at Eckes-Granini Deutschland GmbH.





Lutz Hofmann
 Head of Safety, Environmental Protection and Facility Management
 Environmental Management Officer at Eckes-Granini Deutschland GmbH



Christina Denbrock
 Eckes-Granini Deutschland GmbH
 External Communication Manager
 Germany

- Plants**
- Site Manager
 - Company Officers
 - Company Doctor
 - Head of Safety, Environmental Protection and Facility Management
 - Works Council
 - Health and Safety Officer
 - Staff Representative
 - Occupational Safety Specialist
 - Site Management

- National Communication**
- Nieder-Olm
 - National Sustainability Team

STRUCTURED NETWORK



————— The organisational structure for environmental protection at Eckes-Granini Deutschland GmbH also includes Dr Karl Neuhäuser (Head of Central Quality Management), who coordinates the risk management processes for all potential internal and external hazards and risks, and the site managers at each location.



————— The persons responsible and the employees are supported by various legally required and internally employed Operational Representatives for Environmental Protection in fields relevant to the environment. The organisation is also closely linked to the international sustainability team of the Eckes-Granini Group.



Lifecycle of beverage packaging

Packaging materials at a glance

Manufacturing

Usage phase

Recycling / disposal phase

Manufacturing

Usage phase

Recycling / disposal phase

Lifecycle

Description

Lifecycle

Description

Lifecycle

Description

Raw material(s): quartz sand, sodium carbonate, lime, dolomite and recycled glass

Glass is made of the natural raw materials (quartz) sand, sodium carbonate, lime and dolomite.
It is produced using 60 % recycled glass; green glass is even 90 % recycled..

GLASS

Raw material(s): quartz sand, sodium carbonate, lime, dolomite and recycled glass

Glass is made of the natural raw materials (quartz) sand, sodium carbonate, lime and dolomite.

GLASS

Raw material(s): oil

The raw materials required to produce PET (ethylene glycol and terephthalate compounds) are extracted from crude oil or natural gas. These substances are combined to make long chain molecules during the production of PET. As the process continues, you get a viscous molten mass that is extruded into thin strips, cooled off and cut into granules. The granules are then refined to give them the desired properties, particularly resistance and strength.

PET

Glass production: Energy

The use of recycled glass reduces our energy consumption throughout the production process, as less energy is required to melt the raw materials. This also conserves raw materials and produces less waste.

Glass production: Energy

Recycled glass is added to the mixture during production; the proportion of recycled glass varies between 60 % (in white glass) and 90 % (in green glass). The addition of recycled glass also reduces our energy consumption by lowering the melting temperature.

Bottle production

The granules are made into pre-forms with the required screw cap. The pre-forms are then taken to the bottling stations.

Bottling

The bottles are filled.

Bottling

The bottles are filled.

Bottling

The pre-forms are heated and puffed up to give the bottles their typical shape. We then inspect their cleanliness, shape and impermeability, so that the beverages can be put into the bottles.

Retail

Storage and sale

Retail

Storage and sale

Retail

Storage and sale

Consumers

Once the glass bottles have been used for the first time, they are either reused in their current form or recycled by consumers.

Consumers

Once the non-reusable glass bottles have been used, they are recycled by consumers.

Consumers

Once the bottles have been used, they are returned to the shops by consumers or recycled.

Waste disposal companies

The recycled glass is collected by waste disposal companies. It is cleaned, crushed and melted down. This process does not reduce the quality of the glass.

Waste disposal companies

The recycled glass is collected by waste disposal companies and sorted by colour.

Waste disposal companies

The waste disposal companies use high-tech sorting methods. They sort the fragments of shredded PET bottles, which contain other plastics in addition to the main PET component (lid and film layer on the body), so that the materials are safe for reuse in other foodstuffs.

Processing of recycled material

The glass is cleaned, sorted by colour and recycled with no loss of quality.

Processing of recycled material

The used glass is cleaned, crushed, melted down and fed back into the production cycle. This process can be repeated infinitely without reducing the quality of the glass.

Processing of recycled material

PET is 100 % recyclable. The material cannot be used infinitely, however, because a certain decrease in quality cannot be avoided.

Source: Saint-Gobain Oberland AG; Owens-Illinois, Inc.

Source: Verallia Deutschland AG; Federal Environmental Agency

Source: PLASTIPAK Deutschland GmbH

NON-REUSABLE

PACKAGING MATERIALS

	Lifecycle	Description
Manufacturing	Raw material(s): (oil), recycled PET bottles	<p>PET bottles are initially sorted and washed to make sure they can be recycled as rPET.</p> <p>The bottles are then given a visual inspection, where any unwanted parts can be removed by hand. The bottles and caps are then ground down to produce flakes.</p>
	Bottle production	<p>The flakes are cleaned, rinsed and sorted. The aim is to separate the PET flakes from the cap flakes using a water bath. The cap flakes remain on the surface of the water due to their lower density and can be skimmed off, whereas the PET flakes sink to the bottom.</p> <p>The flakes are sorted and washed several times to remove any impurities. They are then heated up and melted down to obtain granules during the extrusion process. Now the material can be processed into pre-forms, which are a mixture of new, conventional PET material and the recycled material.</p> <p>The pre-forms are then taken to the bottling stations.</p>
Usage phase	Bottling	The pre-forms are blown into bottles, after which they are filled.
	Retail	Storage and sale
	Consumer	rPET bottles are treated like disposable PET by consumers and either returned to shops or recycled.
Recycling / disposal phase	Waste disposal companies	Collection, processing and sorting.
	Processing of recycled material	rPET cannot be used infinitely, as the quality of the material decreases over time.

rPET

	Lifecycle	Description
Manufacturing	Raw material(s): wood, polyethylene, bauxite	<p>Our beverage cartons are mainly made of wood, which is a renewable raw material. Another key element of composite packaging is polyethylene (PE), which is an organic material made of carbon and hydrogen. PE is a by-product that arises during the refinery of crude oil.</p> <p>The polyethylene used to make beverage cartons does not contain any environmentally harmful or hazardous additives, such as heavy-metal compounds with cadmium or lead, nor does it contain any plasticisers.</p> <p>Our composite packaging contains aluminium to protect our beverages against the effects of light and oxygen. As both sides of the packaging are coated with polyethylene to stop foodstuffs coming into contact with the aluminium, the packaging does not pose any health risks.</p>
	Carton production	<p>Our beverage cartons consist of different materials, which are combined to form a compound:</p> <p>The wood ensures stability, the polyethylene (PE) makes sure our cartons remain impermeable, and the aluminium protects our beverages against light and oxygen.</p>
Usage phase	Bottling	The aseptic UHT process helps to retain vitamins and flavour, which means juices, soups and milk can be kept in beverage cartons for at least six months without the need for refrigeration or preservatives. The product is heated to high temperatures in an ultra-short period before being immediately cooled and filled into sterilised packaging. As vitamins and nutrients are only subjected to thermal stress for short periods of time, the taste and aroma can be retained.
	Retail	Storage and sale
	Consumer	rPET bottles are treated like disposable PET by consumers and either returned to shops or recycled.
Recycling / disposal phase	Waste disposal companies	Collection, processing and sorting.
	Processing of recycled material	<p>The dual system is used to dispose of our composite packaging, which can generally be recycled without any problems. The beverage cartons are first crushed and then fed into a pulper. The water causes the paper fibres to swell out, so that they can then be separated from the plastic and aluminium layers.</p> <p>The pulp is used to produce paper. The remaining compound is used to manufacture alternative fuels, or the aluminium is completely separated from the plastic at highly-specialised facilities.</p>

COMPOSITE

Source: PLASTIPAK Deutschland GmbH

Source: Association of Cardboard Packaging for Liquid Foodstuffs (FKN)

Eco-management and auditing system

Fit for the future

We are well aware of the fact that sustainability is an ongoing process – not a final and static state – but we are more than happy to take on the challenge. We like to think of our sustainability management as a continuous learning process.

We take a thorough and systematic approach to sustainability issues and are always striving to make further improvements. As a family business, Eckes-Granini Deutschland GmbH is extremely serious about its responsibility towards its customers, products and the environment.

It is essential that the company and its employees comply with all legal requirements. In our Code of Conduct, we oblige every individual to observe both internal and external guidelines. We make it absolutely clear that any infringements will have serious consequences.

And we are seeing the results, as no complaints were filed for infringements by the organisation last year.

Needless to say, all products made by our company meet the legal requirements, such as the food labelling regulations and the product safety directive.

All our juices, nectars and fruit juice beverages are put through several quality controls and are only delivered to retailers after passing our electronic approval process. As an IFS-certified company, we are constantly trying to reduce the amount of sugar in our fruit nectars and fruit juice beverages.

We regularly audit our suppliers to assume full responsibility along the entire value chain.

Much like our employees, our suppliers must also comply with the Code of Conduct at Eckes-Granini Deutschland GmbH.

As a result, 2019 was another year where Eckes-Granini Deutschland GmbH honoured its product responsibility in all respects.

Eckes-Granini Deutschland GmbH has been highly committed to environmental protection for many years, as reflected by various initiatives and the regular (re)validation of its EMAS-registered system. This also ensures the continuous improvement of environmental protection measures at Eckes-Granini.

And our efforts are certainly paying off, as we did not receive any complaints, fines or sanctions due to the infringement of environmental regulations in 2019. But sustainability is about so much more than just product responsibility and environmental protection. The “human” aspect also plays an important role, both internally in the form of our employees and externally within our social initiatives. We think it is really important for social diversity to be reflected by our organisation, especially during the current internationalisation and multiculturalisation of society. That is why we intend to become even more active in this area in the coming years.

1991

1992

1993

1994

1994

1996

1996/97

1997

1998

1998/99

1999

2000

2001

2003

2005

2008

2011

2014

2017

2020

our achievements so far

ENVIRONMENTAL MILESTONES

An eco-management and auditing system is introduced at the head office of der Eckes-Granini GmbH in Nieder-Olm.

The eco-management and auditing system is expanded to all sites.

The eco-management and auditing system is aligned with EMAS.

A first environmental handbook is published for the Bröl site in line with EMAS.

The Bröl site is commended by the Rhein-Sieg-Kreis district for its particular commitment to environmental protection.

The Bröl site becomes the first plant in the European fruit juice industry to meet the extensive requirements of EMAS I on the basis of DIN EN ISO 14001.

The German Association of Independent Business Executives (ASU) acknowledges the exemplary initiatives carried out by ECKES AG by presenting an award for environmentally friendly corporate management.

The site in Bad Fallingbostel is registered in line with EMAS I.

ECKES AG is honoured as an "Environmentally Friendly Company" by the state of Rhineland-Palatinate.

The ASU once again acknowledges the activities carried out by ECKES AG by presenting it with another environmental award.

The Bröl site is revalidated in line with EMAS I.

The site in Bad Fallingbostel is revalidated in line with EMAS I.

ECKES AG becomes the first organisation in the industry to become fully registered in line with EMAS II.

ECKES AG decides to continue implementing the EMAS standards for its German subsidiary (Eckes-Granini Deutschland GmbH).

Eckes-Granini Deutschland GmbH is revalidated in line with EMAS II, including its recertification in line with the DIN EN ISO 14001 standard for eco-management and auditing systems.

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LOCATIONS IN GERMANY



● Bad Fallingb.



● Bröl



● Nieder-Olm



Locations

Fit for the future

Eckes-Granini Deutschland GmbH operates at three different locations in Germany. Our company is headquartered in Nieder-Olm (Rhineland-Palatinate), where we carry out our administrative work, research and development. Our products are made at our sites in Bröl (North Rhine-Westphalia) and Bad Fallingbostel (Lower Saxony).

All three sites have cutting-edge equipment and are more than fit for the future with a highly organised set-up and an environmental protection management system of the highest calibre. Each of the sites will be presented over the following pages, where we will look at their respective fields of business and environmental performance. The information is presented in accordance with EMAS III Annex II, III and IV.

LOCATIONS

Nieder-Olm is a town in the Mainz-Bingen district of Rhineland-Palatinate, located approximately 10 km to the south of Mainz at the heart of Rhenish Hesse.

Bad Fallingbostel is a town in the Heidekreis district of Lower Saxony. It has been a state-recognised spa town since 1976.

Bröl is located in the town of Hennef (Sieg) in North Rhine-Westphalia; like many of the districts in the area, it was named after the neighbouring Brölbach tributary.



Nieder-Olm

Headquarters



Andreas Niesig
Supply Chain Manager
Eckes-Granini Deutschland GmbH
Environmental Management Ambassador
Nieder-Olm

— The town of Nieder-Olm is located at the heart of Rhenish Hesse, just 14 km south of Mainz in the largely unwooded but intensively cultivated Selz Valley.

The A63 motorway that brushes past Nieder-Olm has northbound connections to Frankfurt am Main / Bingen via the A60 and southbound connections with Koblenz / Ludwigshafen via the A61.

Nieder-Olm has good train and bus connections with Mainz and Alzey. It is around 50 km away from the city of Frankfurt am Main and around 40 km away from Frankfurt Airport.

— Around 265 people work for Eckes-Granini Deutschland GmbH or Eckes-Granini Group GmbH (111 people) in Nieder-Olm. We have been responsible for the disposal of our own waste and the supply of heat and water since 2017. We purchase electricity centrally for all our locations.

— Our eco-management and auditing system ensures that all our binding obligations are fulfilled at Eckes-Granini Deutschland GmbH.

The Head of Safety, Environmental Protection and Facility Management is a member of the Committee for Occupational Safety and Environmental Protection at Eckes-Granini Deutschland GmbH. He also coordinates committee meetings at our plants.

In 2019, new multi-pane windows were fitted in Building B61 to improve sound and heat insulation. New power units are increasing the efficiency of our technical centre. New radiator valves have also been installed in Building B61 and B71 to optimise our energy consumption.



HEADQUARTERS

E S T A T E

Biodiversity	(land use)
Total size	13,500 m ²
Current developed area	3,000 m ²
Sealed areas	6,500 m ²
Green spaces	4,000 m ²

CARBON FOOTPRINT OF LOCATIONS 2019



Nieder-Olm

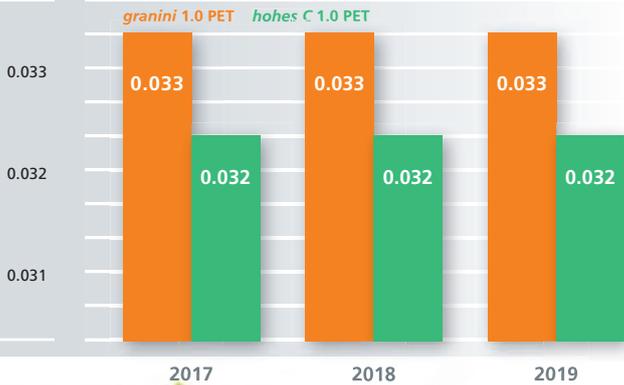
PET pre-forms

Development of PET pre-forms and emissions from air miles (2017-2019)

PET pre-forms

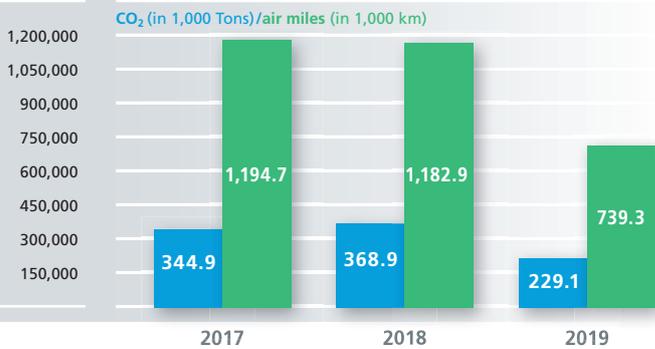
KPIs: **specific material efficiency**

(mass flow rate/1,000 litres of juice)



Air miles

KPIs: **CO₂/air miles**



PET pre-forms

The weight of Granini 1.0 PET has been reduced slightly in recent years.

Eckes-Granini Deutschland GmbH can make statements on its material efficiency based on the figures for PET packaging for *granini* and *hohes C*, which account for 75% of all bottling volumes.

This allows us to document the mass flow rate.

Air miles

There was a significant decrease in the number of flight miles travelled (-33%) during the assessment period, allowing us to cut our CO₂ emissions by around one third – our lowest value since 2015. Following the acquisition of Rynkeby Foods in Denmark, we have needed fewer short-haul flights along this route.



Development of energy consumption and volume of water/sewage (2017–2019)

Energy

As a general remark, it should be noted that energy consumption depends heavily on the number of tests and trials conducted at the technology centre of the R&D Department. After installing an additional 28 m² cooling and freezing system in Building 61 in October 2018, our electricity consumption increased again slightly in 2019.

The specific gas consumption can vary from year to year as a result of the respective heating period in winter.

We have been purchasing all types of energy centrally since 2017.

We use 100 % green hydroelectric power but still have to obtain water from the local area.

Water

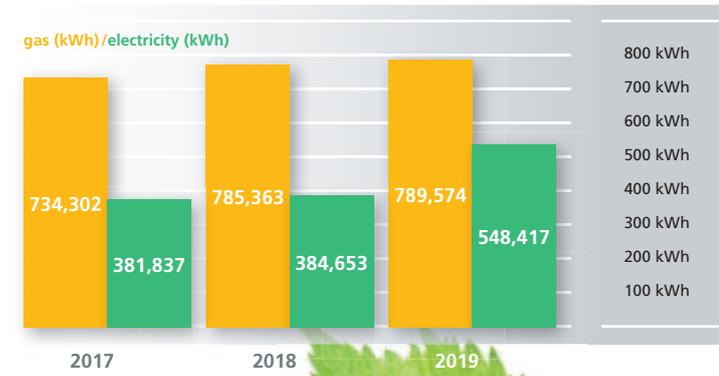
Our water consumption also depends on the number of tests and trials conducted at the technology centre of the R&D Department, which is why the figures can vary a lot from year to year.

Our water / sewage development was kept at a constant level throughout 2018/19 and even decreased slightly. Some of our water is used to irrigate our green spaces, where calibrated meters have been installed.

The irrigation volume is reduced by the volume of waste water.

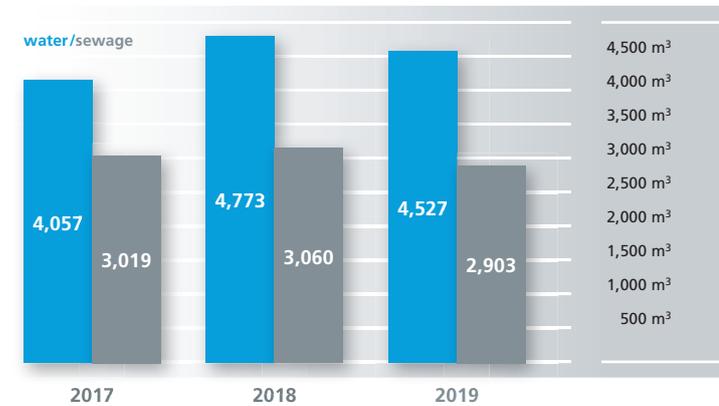
Energy consumption

KPIs: energy consumption/energy (kWh x 1,000)



Water/sewage

KPIs: water/sewage (in m³)



Nieder-Olm

Development of waste production (2017-2019)

Meinhardt Städtereinigung GmbH & Co. KG is our commissioned waste disposal company. Our waste is processed as follows:

- Preparation for reutilisation
- Recycling
- Other uses, particularly for energy and backfilling
- Removal

We produce the following types of waste:

- Chemicals
- Recyclable waste
- Film (yellow bin)
- PET bottles
- Glass bottles
- Wood
- Metal
- Confidential documents
- Storage media
- Organic waste
- Other waste (e.g. bulky waste)

- All conventional button cells and batteries are properly disposed of by ECOBAT.
- We dispose of our empty printer cartridges and mobile phones through "Meike – der Sammeldrache", an institution run by the Alba Group. We receive rewards points for our empty printer cartridges and mobile phones. We donate our points to a day-care centre, which can redeem them for non-cash prizes, such as computer accessories, books and sports equipment.
- The containers from quality assurance (e.g. retention samples, specimens) – and from tests and trials conducted at the technical centre – are collected by the waste disposal company, Huhn, as are expired goods from the staff shop and food waste from the canteen.
- More material was sent to the biogas plant thanks to the additional disposal of retention samples.



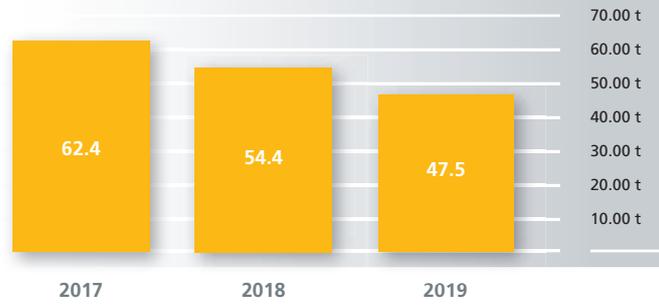
Scrap electronics are recycled by E&O Recycling GmbH.

Our light bulbs, fluorescent tubes and LED lights are disposed of by a specialist electrical company.

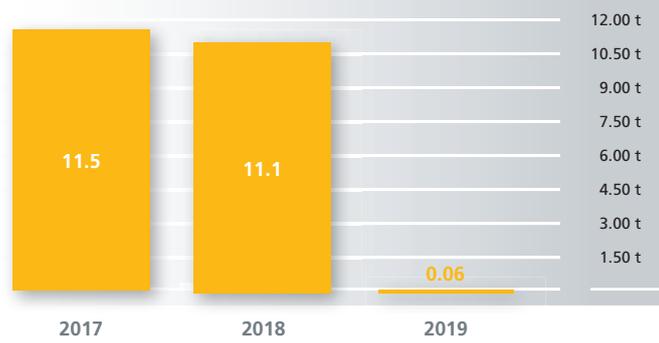
The firms that are currently working with Eckes-Granini Deutschland GmbH are qualified waste disposal companies that are audited at irregular intervals.

They all have documentation to prove they are specialist waste disposal companies. The contractual terms and conditions have remained the same for the current year.

Waste in tons (t)



Hazardous waste in tons (t)



Biogas plant in tons (t)



PROGRAMS 2017–2020

Target	Measures
1. Improved quality management	<ol style="list-style-type: none"> Thanks to the cross-departmental cooperation between all our sites that use aseptic processing techniques (Project I-ACT), we are constantly developing the aseptic and hygienic qualities of our PET bottling methods. We are making our risk management system more effective by simulating crisis drills with professional guides.
2. Sustainability	<ul style="list-style-type: none"> ZNU partnership Eckes-Granini-Group targets Tracking • EcoVadis
3. EMAS-Support	Rynkeby Denmark audit
4. Lean & Green logistics 20% reduction in CO ₂ emissions in five years	TÜV Nord audit, Janz Logistics Academy Basic calculation
5. Reduction of multi-layer PET packaging	Use Plasmax coating for more PET bottles
6. Savings in primary energy	<ul style="list-style-type: none"> Energy log Monitoring, software CIP
7. Prepare internal environmental audit	Continue environmental report every year and request validation by environmental verifier
8. Education of employees	Periodic reporting on environmental issues at company meetings, department meetings, on environmental protection of environmental report on the Intranet, expansion of environmental information on the Intranet, regular articles about environmental protection in the staff magazine
9. External communication on environmental protection	Publication of environmental report after EMAS registration
10. Health and safety	<ul style="list-style-type: none"> Health management Safety Nutrition

PROGRAMS 2020–2023

Target	Measures
1. Improved quality management	<ol style="list-style-type: none"> Thanks to the cross-departmental cooperation between our German and international sites that use aseptic processing techniques (Project ACT / I-ACT), we are constantly developing the aseptic and hygienic qualities of our PET bottling methods. We are making our risk management system more effective by simulating crisis drills with professional guides. We also want to simulate a specific environmental crisis (2021).
2. General sustainability	<ul style="list-style-type: none"> ZNU-Partnerschaft Eckes-Granini-Group Ziele Eco-Vadis
3. Carbon neutrality of locations (Scope 1 and 2)	<ul style="list-style-type: none"> Participation in "ZNU Goes Zero" programme "Plant for the Planet" (Mexico)
4. Climate protection along the entire value chain	<ul style="list-style-type: none"> Calculation of our end-to-end carbon footprint (Scope 3) Develop climate protection measures Cooperation with ZNU and "Climate Partner"
5. Lean and Green logistics, further 10% reduction in CO ₂ emissions in five years (Base: 2012; so far: 23.67%)	<ul style="list-style-type: none"> TÜV Nord audit, Janz Logistics Academy basic calculation "2nd Star": further improvement by working towards "L&G 3rd Star"
6. Continual improvement	<ul style="list-style-type: none"> Weight reduction of packaging and waste prevention Minimum use of rPET across various brands hohes C 1 litre: use of rPET
7. Team Rynkeby – hohes C	<ul style="list-style-type: none"> Tour to Paris (cancelled in 2020; small tour of Germany planned instead) Tours are being planned for the years to come • Staff involvement
8. Health, safety and sustainability	<ul style="list-style-type: none"> Health management Safety High involvement of staff in sustainability issues
9. External communication on environmental protection	Publication of environmental report after EMAS registration
10. Prepare internal environmental audit	Continue environmental report every year and request validation by environmental verifier

Responsible person(s)	Measured parameter(s)	Deadline	Status
Central Quality Management	<ul style="list-style-type: none"> The number of complaints has remained low. Fewer products have had to be destroyed. 	2017–2020	Complaints reduced since 2017 Ongoing process
	<ul style="list-style-type: none"> We are simulating crisis drills with professional guides to identify areas for improvement. 	annually	Implemented (annually)
Supply Chain Manager	Participation / interaction Sustainable Goals 2020	2017–2020	Ongoing process
Head of Safety, Environmental Protection & Facility Management	Introduction and Validation of EMAS	2018	Support given; Certification postponed until Q4/2020
Head of Logistics, Nieder-Olm	Lean & Green Label Star Award	2017	Awards received (“ECR Award 2019” and “Lean and Green Second Star 2020”), Ongoing process
Site Manager, Bad Fallingbostel / Site Manager, Bröl	10 % more coatings compared to last year	2017–2020	Not achieved; average use of multi-layer PET packaging (2017 to first half of 2020): 30.9% (Bröl) and 34.38% (Bad Fallingbostel)
Site Manager, Bad Fallingbostel / Site Manager, Bröl	<ul style="list-style-type: none"> Register plan Software installed –10 % gas and electricity 	2020	Project launched (Targets for Bröl: see p.68) (targets for Bad Fallingbostel: see p.76)
Head of Safety, Environmental Protection & Facility Management	Internal environmental audit, annual report	2017–2020	Annual report available
Environmental Management Ambassador	Two annual roll-ups	2017–2020	Ongoing process (Two annual staff meetings on environmental issues)
Head of Safety, Environmental Protection & Facility Management	2,500 copies in German and English	2017–2020	Ongoing process
Management	<ul style="list-style-type: none"> Auditing, monitoring Accidents at work: –10 % Sugar strategy 	2017–2020	Ongoing process (Sugar strategy: -10%)

NIEDER-OLM

Responsible person(s)	Measured parameter(s)	Deadline	Status
Central Quality Management	The number of complaints has remained low. Fewer products have had to be destroyed.	2020–2023	Ongoing process
	We are simulating crisis drills with external guides to identify areas for improvement.	annually	
Management (Germany) Supply Chain Manager	Certification according to ZNU sustainability standards	2021	Ongoing process
	The group targets specified in 2022 Agenda will be transferred to Germany and implemented.	since 2020	Ongoing process
	EcoVadis will be continued.	2022	Ongoing process
Supply Chain Manager	<ul style="list-style-type: none"> Certificate from Plant for the Planet Offsetting CO₂ emissions 	2019–2024	Start of Sep. 2019 (CO ₂ figures from 2018 used), 5-year contract
Supply Chain Manager	<ul style="list-style-type: none"> Significant CO₂ savings Bröl and Bad Fallingbostel reduction goals Bröl and Bad Fallingbostel reduction goals 	2020–2023 based on the 2030 environmental targets	Ongoing process
Head of Logistics, Nieder-Olm	Companies that received the 1st Star before 31. December 2018 have to achieve a 10% reduction in 3 years (i.e. 20-5-10); in total, all companies should achieve a 35% reduction after the 3rd Star.	2021–2023	Awards received, Ongoing process
Research & Development	<ul style="list-style-type: none"> –10 % based on 2015 figures, further 5 % based on 2020 figures 25 % rPET 100 % use of rPET 	2020	Ongoing process
		bis 2025	Work in progress until end of 2020
		2020 2020 2021	
Team Rynkeby Germany	Collecting money for child cancer patients; donation made to the German Childhood Cancer Foundation	2020–2023	Ongoing process
Head of Safety, Environmental Protection & Facility Management	<ul style="list-style-type: none"> Auditing Monitoring, accidents at work Staff surveys 	2020–2023	Ongoing process
Head of Safety, Environmental Protection & Facility Management	Digital communication, 1,500 copies in German and English	2020–2023	Ongoing process
Head of Safety, Environmental Protection & Facility Management	Internal environmental audit, annual report	2020–2023	Ongoing process

Bröl

The great variety





PLANT | BRÖL

The great variety



Volker Spohr
Site Manager
Environmental Management Officer
Location: Bröl



Key facts

Bröl is a district in the town of Hennef, situated around 20 km to the northeast of Bonn in the Bergisches Land natural park on the B 478. It is also part of the nature reserve known as "Bröl, Waldbrölbach and the Forests of the Middle Bröl Valley to the South".

It is home to the largest Eckes-Granini Deutschland GmbH site for the production, bottling and storage of fruit juices, fruit nectars and juice beverages, where the company employs 251 people.

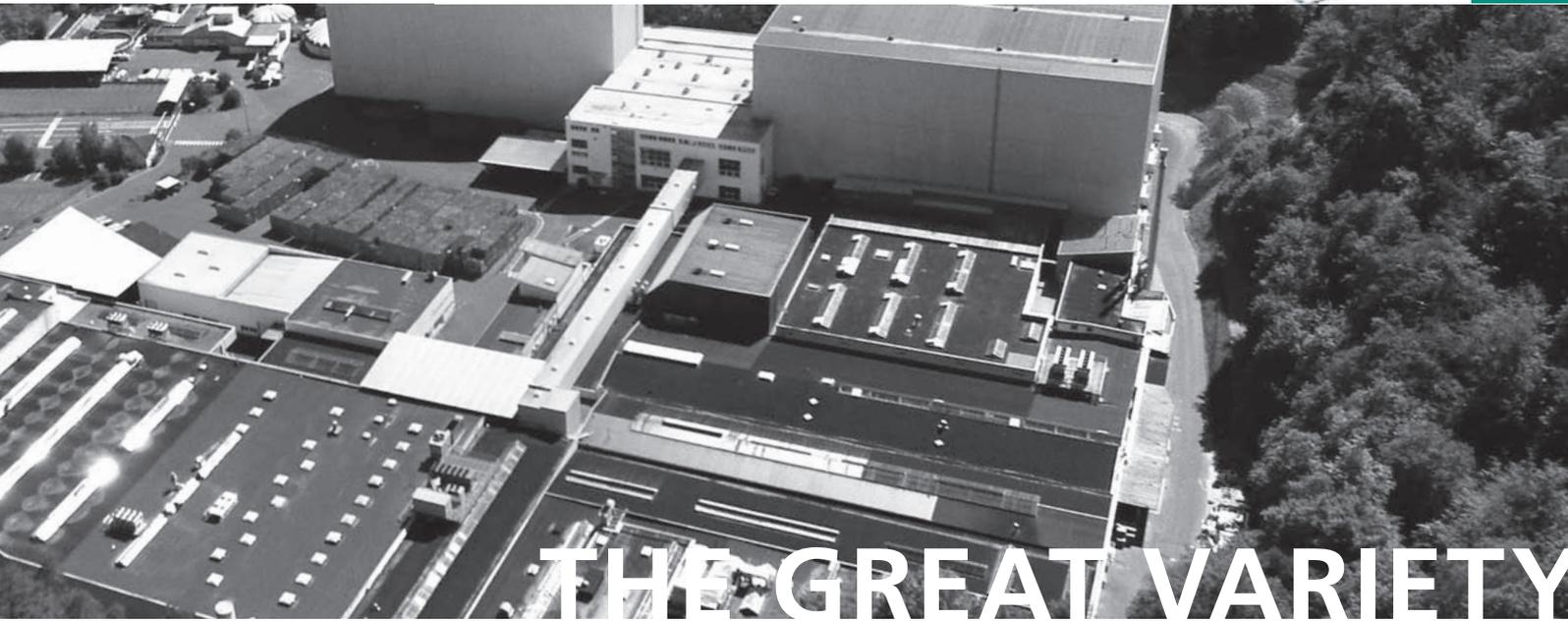
The high-bay warehouse with around 37,500 pallet places, which was opened in 1999, is the largest and most modern Eckes-Granini warehouse in Germany. The site also has its own water treatment plant, where waste water has been used to generate electricity with our in-house biogas turbine since 2019. A new glass filling system was launched at our Bröl site in spring 2020.

The entire premises measure 141,000 m² in size, of which 70,000 m² is taken up by partially untouched woodland and green space. The size of the developed areas amounts to 41,630 m², while the sealed areas cover 29,370 m².

The local council granted us permission to build "new facilities for the production and storage of fruit juices" in Bröl on 23 June 1960. In accordance with Section 67 of the German Pollution Control Act (BImSchG), the planning permission from 1960 is still valid.

We also have a licence to operate our own treatment plant on site; all our waste water is treated anaerobically by our upstream system (permit granted by Cologne Regional Administration on 15 November 2004, as amended by the Office for Technical Environmental Protection of the Rhein-Sieg-Kreis on 28 July 2008).





Our material efficiency is calculated from our input and output records for each factory.

M A N U F A C T U R I N G

Storage (Raw materials, packaging)
Juice blending

P R O D U C T I O N

Bottling

W A R E H O U S E E G D

Storage
Number of articles: approx. 280
Picking,
supply and loading

E S T A T E

Biodiversity	(land use)
Total size	140,000 m ²
Current developed area	41,630 m ²
Sealed areas	29,370 m ²
Woodland and green spaces	70,000 m ²

I N P U T I N 2 0 1 9

Juice, juice concentrate,
nectars, vitamins, aromas

approx. 43.132 million kg

Cider apples

approx. 11.172 million kg

Bottles and other packaging

Glass bottles approx. 7.8 million pieces
Tetra 0.2 l approx. 9.0 million pieces
Tetra 1.5 l approx. 19.0 million pieces
Pre-forms approx. 150.1 million pieces

Auxiliary materials (glues, R&D aids)

535 t

Cartons

approx. 3.1 million pieces

Caps

approx. 195.8 million pieces

Labels

approx. 277.1 million sets

Film

499 t

Straws

approx. 9.4 million pieces

Tetra Edge Wings

approx. 18.1 million pieces

Handles for six packs

approx. 24.6 million pieces

Electric power (incl. logistics)

13,905,487 kWh

Natural gas

32,826,459 kWh

Diesel

239,036 litres

Drinking water

398,027 m³

Well water

22,701 m³

O U T P U T I N 2 0 1 9

Fruit juices,
nectars and fruit drinks

Pre-mix approx. 196.710 million litres
approx. 3.293 million litres
Total approx. 200.003 million litres

Units, total

Glass bottles approx. 43.1 million pieces
Tetra 0.2 l approx. 9.8 million pieces
Tetra 1.5 l approx. 18.1 million pieces
PET bottles
1.0 l approx. 142.8 million pieces
PET bottles
0.5 l approx. 5.8 million pieces

CO₂-emissions

Diesel (0.26071 kg/kWh,
1 l = 10.08 kWh)
Gas (0.200418 kg/kWh)
From gas approx. 6,888 t
From diesel approx. 628 t

Noise

< 80 dB(A)

Waste water

228,490 m³

Waste

(Glass, cardboard, labels, plastic, metal, film,
industrial waste, composite packaging)
approx. 1,802 t

Sewage sludge/compost

360 t

Organic waste (incl. kitchen waste)

442 t

Of which apple stalk

69 t

Apple pomace

2,312 t

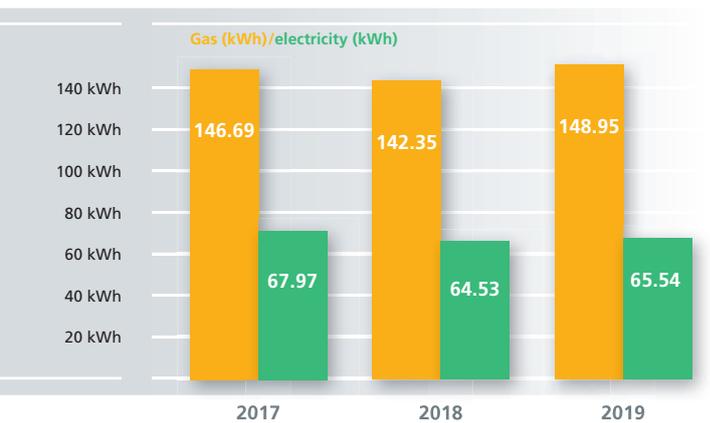
Bröl – KPIs

Development of energy efficiency/energy consumption (2017-2019)



Energy efficiency

KPIs: **energy** (kWh/1,000 litres of unpressed juice without logistics)



A C T U A L C O N S U M P T I O N

Gas	30,496,693 kWh	33,194,387 kWh	32,826,459 kWh
Electricity	13,507,789 kWh	14,767,660 kWh	13,905,487 kWh
Production	196.138 million litres	211.280 million litres	200.003 million litres
Pressing amount	12.450 million kg	15.184 million kg	11.172 million kg

CO₂-emissions

Gas (tons)	6,106 t	7,048 t	6,888 t
Diesel (tons)	636 t	697 t	628 t

Specific CO₂-emissions

Gas (tons)	0.0311 t	0.0334 t	0.0344 t
Diesel (tons)	0.0032 t	0.0033 t	0.0031 t

A C T U A L C O N S U M P T I O N

Diesel (tons)	241,879 litres	265,072 litres	239,036 litres
	2017	2018	2019

Gas

We kept our specific gas and electricity consumption at a constant level between 2017 and 2019.

- Slight fluctuations in gas and electricity consumption may have been caused by changes in our production and pressing volumes.
- We can expect further energy savings in the coming years following the launch of our new glass bottling plant at our site in Bröl in spring 2020.

Diesel

Our consumption levels relate to our own fleet of vehicles.

- We have reduced our diesel consumption even further by permanently training our drivers and changing our fleet in line with the Euro 6 emissions standard.





Development of water/sewage volumes and peracetic acid (2017-2019)

Water

Our water consumption indicator dropped slightly from 2.22 m³/1,000 litres of juice in 2017 to 2.10 m³/1,000 litres of juice in 2019.

Our actual water consumption also fell slightly from 2017 to 2019.

Waste water

Our sewage indicator fell slightly from 1.22 m³/1,000 litres of juice in 2017 to 1.14 m³/1,000 litres of juice in 2019.

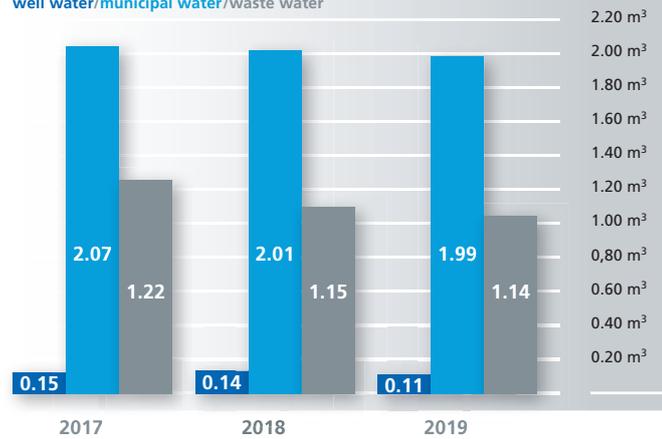


Water/sewage

KPIs: well water/municipal water/waste water

(m³/1,000 litres of juice without logistics)

well water/municipal water/waste water



ACTUAL			CONSUMPTION		
246,682 m ³	245,005 m ³	228,490 m ³			Waste water
407,893 m ³	425,227 m ³	398,027 m ³			Municipal water
30,770 m ³	30,128 m ³	22,701 m ³			Well water

Peracetic acid consumption

122.0 t	126.9 t	132.2 t	Actual consumption
0.62 t	0.60 t	0.66 t	Specific consumption
2017	2018	2019	

Bröl – KPIs

Development of waste production (2017-2019)

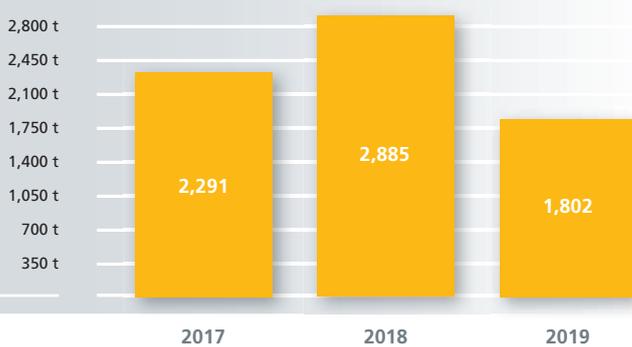
The firms that are currently working with Eckes-Granini Deutschland GmbH are qualified waste disposal companies that are audited at irregular intervals. They all have documentation to prove they are specialist waste disposal companies.

The contractual terms and conditions have remained the same for the current year.

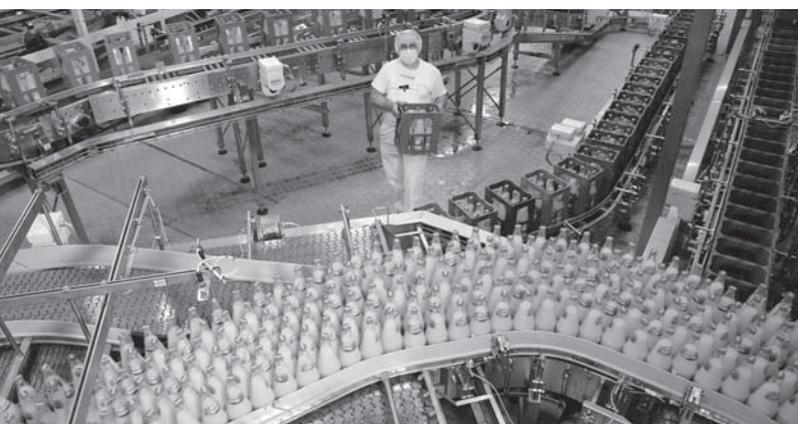
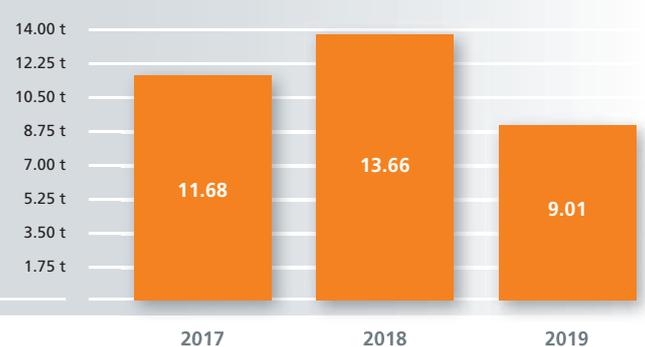
In 2019, our pressing volume was much lower than in previous years. The pressed remains of our apple pomace are used in agriculture.

Eckes-Granini Deutschland GmbH is also an audited and approved feed producer.

Waste in tons (t)

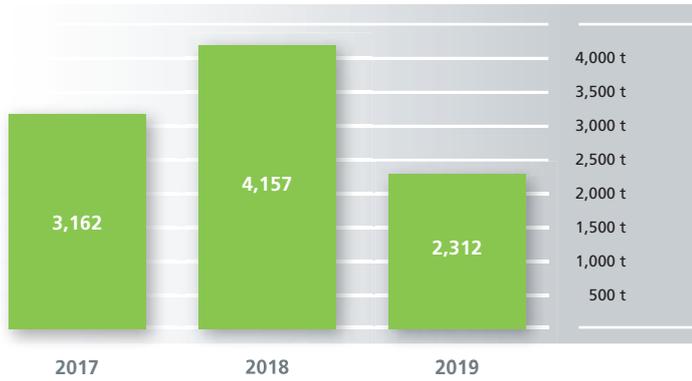


Specific waste in tons (t)/1 million litres of juice

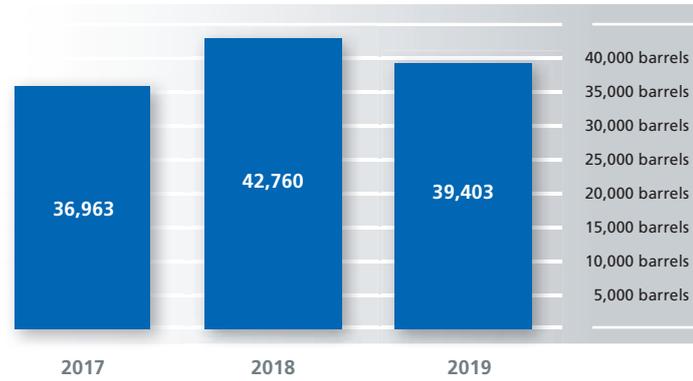




Apple pomace in tons (t)

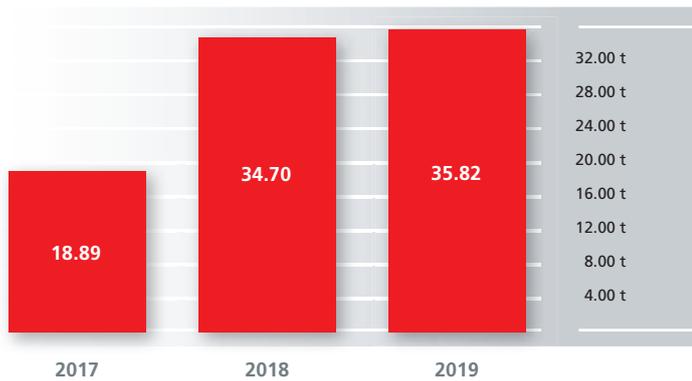


Reusable barrels



100 % of our barrels are recycled.

Hazardous waste in tons (t)



Our hazardous waste in 2018 and 2019 was 16 t and 17 t above the figures recorded in 2017, respectively.

In 2018, the increase came as a result of the repair of our bottle washing machine, where around 20 t of alkaline waste was produced.

Our central alkali supply tank was revamped in 2019, resulting in around 5 t of alkaline waste. We also installed a new refrigeration system at our juice processing facilities.

We also had to dispose of the glycol filling system in the old facilities, because it could no longer be used. This resulted in 10 t of waste. In addition, we had to dispose of around 3 t of insulation material during our renovation work. If we subtract the special effects from 2018/19, the figures are below those recorded in 2017.

PROGRAMS 2017–2020

Target

Measures

1. At least maintenance or reduction of specific consumption per 1,000 litres of bottled juice (compared to 2016 figures)	Continuation of consistent energy management
2. Implementation of a eco-management system	Recording of energy flows in the entire production area Potential installation of additional compressed air, water, steam and electricity meters, incl. integration in our eco-management system (ProLeit), to quickly reduce energy consumption Creation of a suitable organisational structure
3. Reduction of municipal waste	Analysis of municipal waste, evaluation of waste routes Various measures
4. In case of fire: prevent extinguishing water from entering the Brölbach tributary via the rainwater duct system	Identify and install retainer system
5. Increased mono-layers in PET 2	Plasmax system optimisation
6. Further training of our employees in environmental protection at work	Implementation of training plans for 2017-2020, central training of officers from location
7. External communication on environmental protection	Publication of environmental report after EMAS registration

WHAT WE HAVE ALREADY ACHIEVED

PROGRAMS 2020–2023

Target

Measures

1. Reduction of specific consumption per 1,000 litres (compared to 2019 figures)	Continuation of consistent energy management Introduction of new glass system
2. Optimisation of co-management system	<ul style="list-style-type: none"> Refined recording of energy consumption and expansion to new glass system Development of reporting LMS and PLS update to V 9.0
3. Reduction of municipal waste	Analysis of municipal waste, evaluation of waste routes, various measures
4. Prevention of pellet losses in the reactor of the sewage treatment plant by reducing substances	Optimised connection of a screening drum
5. Reduction of detergent consumption	Continuation of the monitoring system developed in 2019, detection and prevention of excess consumption, realisation of optimisation potential
6. Further training of our employees in environmental protection at work	Implementation of training plans for 2020-2023, central training of officers from location
7. External communication on environmental protection	Publication of environmental report after EMAS registration

WHAT WE WANT TO ACHIEVE

Responsible person(s)	Measured parameter(s)	Deadline	Status
Site Manager, Head of Production, Head of Treatment Plant, Technical Director	Gas 153.36 kWh -5 % Electricity 61.84 kWh -5 % Water 1.94 m ³ -2 % Waste Water 1.15 m ³ -2 %	2017–2020	Gas 148.95 kWh Electricity 65.54 kWh Water 2.10 m ³ Waste water 1.14 m ³
Site Manager, Technical Director,, Head of Production, CIP Team, CIP Coordinator		2017–2020	75 %
Site Manager	10 % compared to 2016	2020	100 %
Site Manager, Head of Treatment Plant		2018	100 %
Technical Director, Head of Production	5 %	2018	The target was not achieved in 2018. The proportion of mono-layers has increased by 3.7%.
Head of Department, HR Manager		2017–2020	Ongoing process
Corporate Communications		2017–2020	Ongoing process



Responsible person(s)	Measured parameter(s)	Deadline	Status
Site Manager, Head of Production, Head of Treatment Plant, Technical Director	Gas 148.95 kWh -3 % Electricity 65.54 kWh -3 % Water 2.10 m ³ -1 % Waste water 1.14 m ³ -1 %	2020–2023	
Site Manager, Technical Director, Head of Production, CIP Team, CIP Coordinator		2020–2023	
Site Manager	5 % compared to 2019	2023	
Site Manager, Head of Treatment Plant		2020	
Technical Director, Head of Production	5% reduction compared to 2018 (2.3 g/container)	2020–2023	
Head of Department, HR Manager		2020–2023	Ongoing process
Corporate Communications		2020–2023	Ongoing process

Bad Fallingbostel

Modern and efficient





PLANT | BAD FALLINGBÖSEL

Bad Fallingbostel

Modern and efficient



Hermann Naumann
Site Manager
Environmental Management Officer
Location: Bad Fallingbostel



Key facts

Eckes-Granini Deutschland GmbH started operating in Bad Fallingbostel (Lower Saxony) in 1989/90. This is where the *classic hohes C* and *granini Trinkgenuss* brands are delivered to supermarkets around the country.

The landscape of the 85,000 m² site is shaped by 47,800 m² of green space, some of which is completely untouched. The site is located at the heart of the Heidekreis district in the southern part of the Lüneberg Heath; it borders on the "Hohe Heidmark" biosphere region and has direct connections to the A7 motorway.

Around 137 employees work in a continuous three-shift system to produce and pack around 112 million litres of juice every year, equating to approximately one third of the volume produced by Eckes-Granini in Germany.

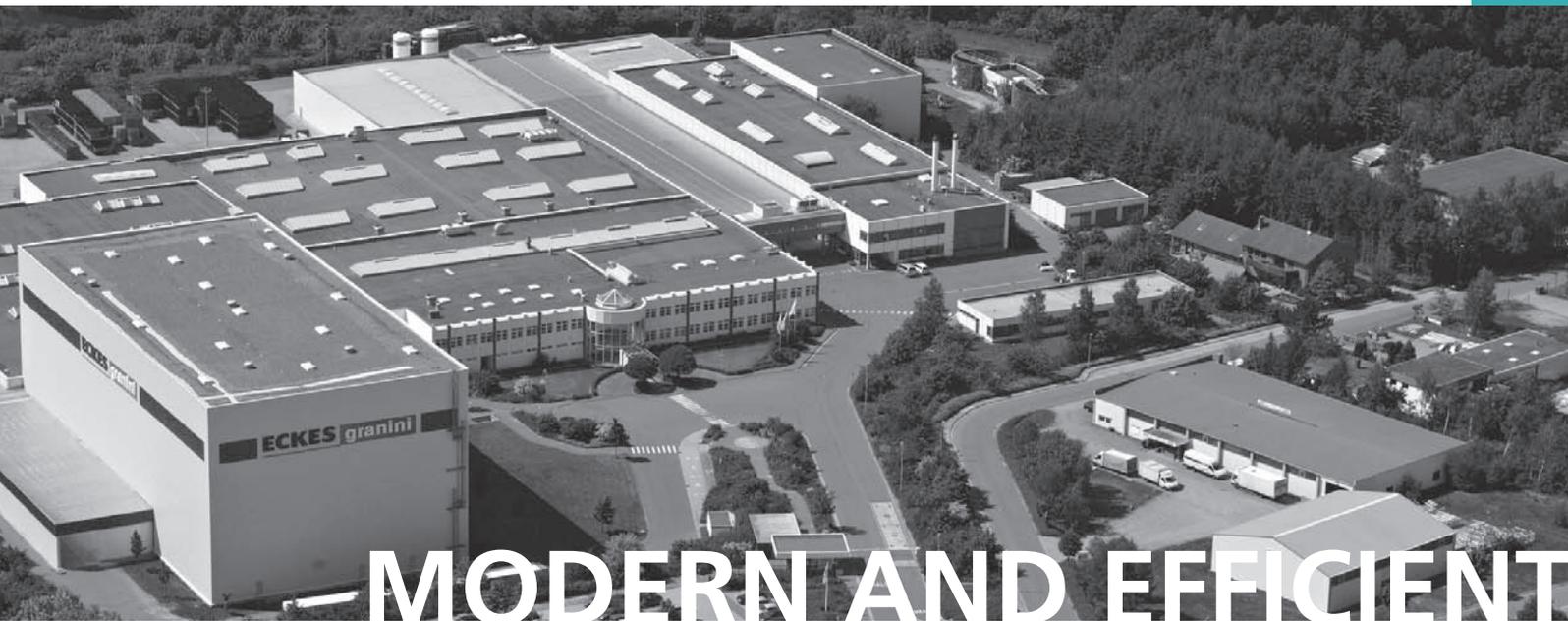
A second dry aseptic filling system was built in 2019 with a capacity of 13,000 bottles. The system was microbiologically verified in December 2019.

As regards our logistics, construction work began on a new warehouse at our site in Bad Fallingbostel in autumn 2019. The automated storage system can hold an extra 6,000 pallets of finished goods. As these had previously been stored externally, we have reduced our transfer of goods.

We are looking to minimise our environmental risk in the future by closing our own diesel filling station.

On 30 January 1990, the Trade Supervisory Board of Celle granted us permission to operate a "system for the automated cleaning, filling or packaging of bottles" in line with the German Pollution Control Act (BImSchG) of 15 March 1974 (4th BImSchV, dated 24 July 1985, Section 10.12, Column 2).





Our material efficiency is calculated from our input and output records for each factory.

MANUFACTURING

Storage (Raw materials, packaging)
Juice blending

PRODUCTION

Bottling

WAREHOUSE & LOGISTICS

Storage

Number of articles: approx. 270

Picking,
supply and loading

ESTATE

Biodiversity	(land use)
Total size	85,000 m ²
Current developed area	27,800 m ²
Sealed areas	9,400 m ²
Woodland and green spaces	47,800 m ²

INPUT IN 2019

Juice, juice concentrate,
vitamins, aromas

approx. 25.93 million kg

Auxiliary materials (glues, R&D aids)

747.78 t

Bottles and other packaging
Pre-form approx. 112.67 million pieces
Bag-in-Box approx. 0.58 million pieces

Cartons

approx. 2.00 million pieces

Caps
PET approx. 108.91 million pieces

Labels

approx. 120.79 million sets

Handles

approx. 19.63 million sets

Electric power (incl. logistics)

5,722,438 kWh

Natural gas

7,762,293 kWh

Diesel

97,768 litres

Drinking water

96,319 m³

Well water

85,718 m³

OUTPUT IN 2019

Fruit juices, nectars and fruit drinks
Pre-mix

Pre-mix approx. 111.96 million litres
approx. 0.053 million litres

Total approx. 112.01 million litres

Units, total
PET-Flaschen approx. 106.76 million pieces
Bag-in-Box approx. 0.56 million pieces

CO₂ emissions
Diesel (oil/diesel 0.26071 kg/kWh,
1 l = 10.08 kWh)
Gas (0.200418 kg/kWh)
From gas approx. 1,518 t
From diesel approx. 255 t

Noise

< 80 dB(A)

Waste water

62,576 m³

Waste
(Glass, cardboard, labels, metal, film, plastic,
composite packaging, industrial waste,
organic waste)

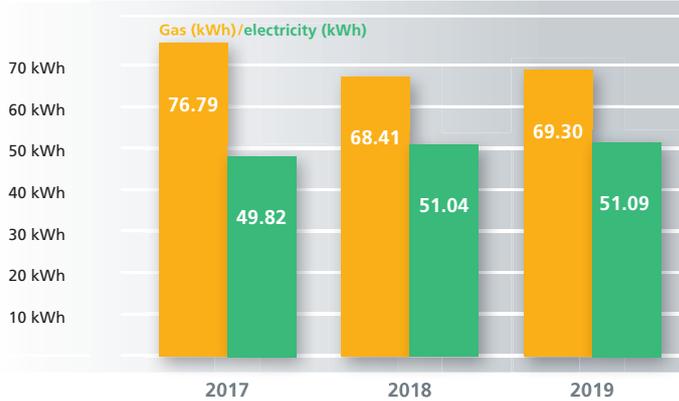
approx. 959 t

Bad Fallingbostel – KPIs

Development of energy efficiency / consumption and water/sewage (2017-2019)

Energy efficiency

KPIs: energy (kWh / 1,000 litres of juice without logistics)



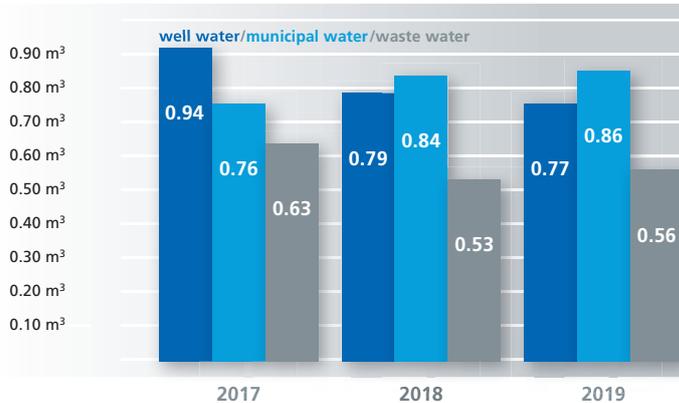
A C T U A L C O N S U M P T I O N

Gas	9011,551 kWh	8,423,800 kWh	7,762,293 kWh
Electricity	5,846,146 kWh	6,284,128 kWh	5,722,438 kWh
Production	117,354 million litres	123,128 million litres	112,012million litres

Water/sewage

KPIs: well water/municipal water/waste water

(m³/1,000 litres of juice without logistics)



A C T U A L C O N S U M P T I O N

Waste water	73,734 m ³	64,529 m ³	62,576 m ³
Municipal water	88,994 m ³	102,974 m ³	96,319 m ³
Well water	110,311 m ³	96,817 m ³	85,718 m ³

CO₂-emissions

Gas (tons)	1,802 t	1,702 t	1,518 t
Diesel (tons)	158 t	189 t	255 t

Specific CO₂-emissions

Gas (tons)	0.0154 t	0.0138 t	0.0136 t
Diesel (tons)	0.0013 t	0.0015 t	0.0023 t

A C T U A L C O N S U M P T I O N

Diesel (tons)	59,918 litres	70,970 litres	97,768 litres
	2017	2018	2019

From 2017 to 2019, we managed to reduce our specific gas consumption in Bad Fallingbostel by 10% thanks to our technical modernisation measures.

At the same time, we kept our electricity consumption at a constant level.

We can expect further energy savings in the coming years following the launch of the new PET line at our site in 2020.

In comparison with the figures recorded in 2017, our specific water consumption per 1,000 litres of juice was slightly reduced.

Our actual water consumption also fell in 2019 due to the lower production volume.

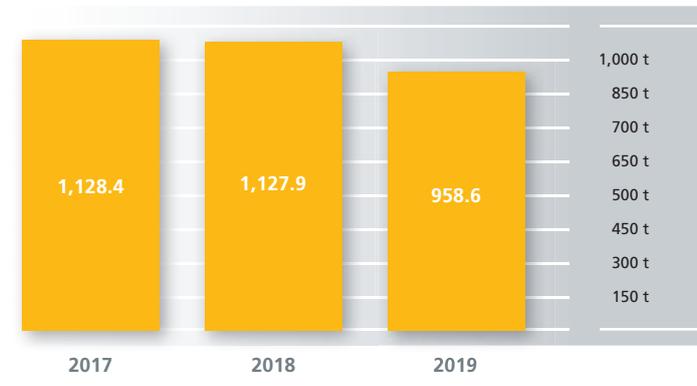
We can expect further water savings in the coming years following the launch of the new PET line at our site in 2020.

According to the commitment, 100,000 m³ of municipal water are to be taken each year.

Our average sewage pollution loads had a COD reading (chemical oxygen demand) of < 1.5.

Development of waste production (2017-2019)

Waste in tons (t)



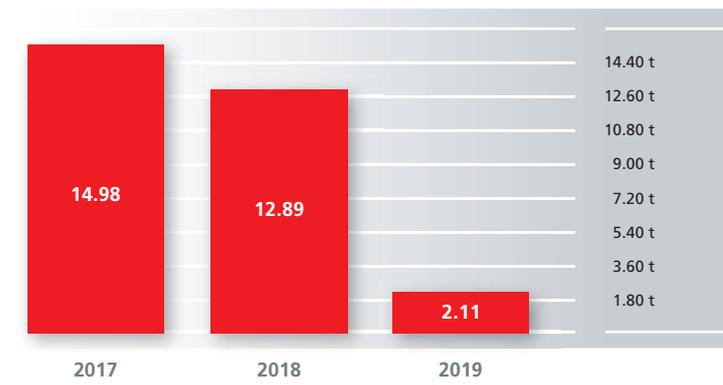
Specific waste in tons (t)/1 million litres of juice



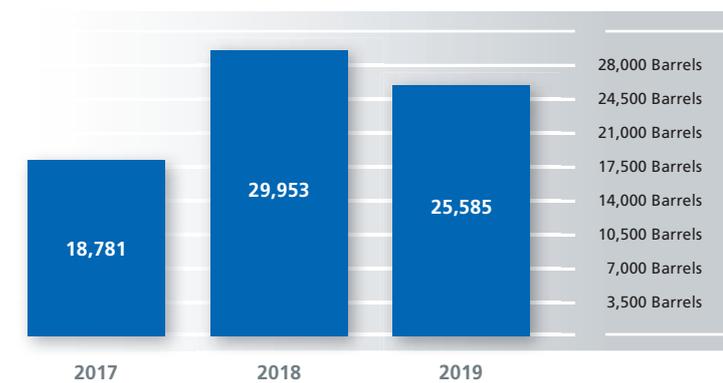
The waste management at the location was exemplary in 2019. The firms that are currently working with Eckes-Granini Deutschland GmbH are qualified waste disposal companies that are audited at irregular intervals. They have the documentation to prove they are specialist waste disposal companies.

The contractual terms and conditions remained the same for 2019.

Hazardous waste in tons (t)



Reusable barrels



100 % of our barrels are recycled.

Development of Peracetic acid and Hydrogen peroxide (2017-2019)

Peracetic acid consumption

Year	Actual consumption (t)	Specific consumption (t)
2017	8.97 t	0.71 t
2018	11.75 t	0.54 t
2019	9.26 t	0.61 t

Hydrogen peroxide consumption

Year	Actual consumption (t)	Specific consumption (t)
2017	92.8 t	0.79 t
2018	90.40 t	0.74 t
2019	82.00 t	0.73 t

PROGRAMS 2017–2020

Target	Measures
1. At least maintenance or reduction of specific consumption per 1,000 litres of bottled juice (compared to 2016 figures)	Continuation of consistent energy management
2. Reduction of multi-layer PET packaging	Use Plasmax coating for more PET bottles
3. Savings in primary energy	<ul style="list-style-type: none"> • Energy log • Monitoring, software • ABC energy analysis
4. New 4-bar compressed air supply (AFC process air)	Installation of new air compressors (incl. pipes) to adequately run sterilisation processes at the aseptic bottling station
5. Sewage reduction COD	Average discharge of waste water with a COD rating of < 1,000 mg/litre from the factory to the municipal sewage system
6. Phosphate-free waste water	Conversion and adaptation of cleaning chemicals to phosphate-free operations
7. Further training of our employees in environmental protection at work	Implementation of training plans for 2017-2020, central training of officers from each location
8. External communication on environmental protection	Publication of environmental report after EMAS registration

PROGRAMS 2020–2023

Target	Measures
1. Maintenance of energy-specific consumption per 1,000 litres of juice	Continuation of consistent energy management
2. Implementation of a new LMS system based on WIN 10 Close IT security gaps	Transfer entire LMS legacy system to new web portal Uploading of the factory's existing energy data record to the new web portal Establishment of a new weighing system in juice processing
3. Optimisation of chemical use (for 1,000 litres of juice)	Further optimisation and adjustment of systems in juice processing and production. Process optimisation.
4. New 4-bar compressed air supply (ACF process air small PET I)	Installation of new air compressors (incl. pipes) to adequately run sterilisation process at the aseptic bottling station
5. 100 % rPET for <i>hohes C</i>	Technological implementation of 100% use of recycled PET for <i>hohes C</i> Optimisation and restructuring of processes for heating, blowing and coating pre-forms vs. finished bottle.
6. Reduction of shrink wrap in PET packing machine for six-packs	Review of weight and consumption of wrap in six-packs Alternative review of complete removal of wrap
7. Further training of our employees in environmental protection at work	Implementation of training plans for 2020-2023, central training of officers from each location
8. External communication on environmental protection	Publication of environmental report after EMAS registration

BAD FALLINGBOSTEL

Responsible person(s)	Measured parameter(s)	Deadline	Status
Site Manager, Head of Production, Head of Factory Maintenance	Gas 109.94 kWh -5 % Electricity* 60.39 kWh -5 % Water 2.16 m ³ -2 % Waste water 0.96 m ³ -2 % * 2015 Plasmax commissioning	2017-2020	Gas 69.3 kWh Electricity* 51.1 kWh Water 1.63 m ³ Waste water 0.56 m ³
Site Manager Bad Fallingbostel	10 % PET compared to previous year	2017-2020	Current use of multi-layers: approx. 30 % Status in 2015 = 50 %
Site Manager Bad Fallingbostel	<ul style="list-style-type: none"> Register plan Install software Energy saving masterplan 	2020 2017 2017	Project implemented and in operation
Site Manager Bad Fallingbostel		2017	Implemented on schedule
Technical Director		2018	Unfeasible for new ACF technology
Site Manager Bad Fallingbostel		2017-2020	Implemented on schedule
Head of Department, HR Manager		2017-2020	Ongoing process
Corporate Communications		2017-2020	Ongoing process



BAD FALLINGBOSTEL

Responsible person(s)	Measured parameter(s)	Deadline	Status
Site Manager, Head of Production, Technical Director, Head of Energy Team	Gas* 85.0 kWh -1 % Electricity* 52.0 kWh -1 % Water* 1.40 m ³ -1 % Waste water* 0.65 m ³ -1 % * Due to the future PET bottling strategy, the average current energy values from January to March 2020 have been used as basic KPIs for the next three years. Our PET bottling lines have the highest energy demands at our site in Bad Fallingbostel.	2020-2023	
Site Manager, Head of Production, Technical Director, Energy Team, IT ProLeit Specialist	Transfer of all available data to the new system	2020	
Site Manager, Head of Production, Head of Factory Maintenance	Consumption of chemicals used for 1,000 litres of juice Status in 2020: 0.973 kg/1,000 litres Target: -5 %	2010-2023	
Site Manager, Head of Production, Head of Production	Our process air is currently treated at 7 bar.	2021	
Site Manager, Head of Production, Technical Director	Use of recycled materials in 2020: 25 %	2021	
Site Manager, Head of Production, Technical Director, Head of Energy Team	Plastic waste in 2020: 17.70 t consumption Target: -5 %	2021-2022	
Head of Department, HR Manager		2010-2023	Ongoing process
Corporate Communications		2010-2023	Ongoing process

DECLARATION OF VALIDITY

ENVIRONMENTAL VERIFIER'S DECLARATION ON VERIFICATION AND VALIDATION ACTIVITIES



In accordance with the
**REGULATION (EC) No 1221/2009 OF THE EUROPEAN
PARLIAMENT AND OF THE COUNCIL of 25 November 2009**
on the voluntary participation by organisations in a Community eco-management
and audit scheme (EMAS)



Dr. Ortrun Janson-Mundel, accredited for the "NACE codes 10.20, 10.25, 11.07 and 46.34"
declares to have verified that the whole organisation

**Eckes-Granini
Deutschland GmbH
Ludwig-Eckes-Platz 1
55269 Nieder-Olm
Germany**

**Eckes-Granini
Deutschland GmbH
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with registration number DE-152-00017 meets all requirements of Regulation (EC) No 1221/2009 of the European
Parliament and of the Council of 25 November 2009 on the voluntary participation by organisations in a Community
eco-management and audit scheme in the version amended by regulation (EU) 2017/1505 and regulation (EU) 2018/2026
are fulfilled (EMAS).

By signing this declaration, I declare that
- the verification and validation has been carried out in full compliance with the
requirements of Regulation (EC) No 1221/2009,
- the outcome of the verification and validation confirms that there is no evidence of
non-compliance with applicable legal requirements relating to the environment,
- the data and information of the environmental statement of the organisation reflect
a reliable, credible and correct image of all the organisations activities, within the
scope mentioned in the environmental statement.

This document is not equivalent to EMAS registration. EMAS registration can only be granted by a Competent Body
under Regulation (EC) No 1221/2009. This document shall not be used as a stand-alone piece of public communication.

Eszen, 20.08.2020

Ortrun Janson-Mundel
Dr. Ortrun Janson-Mundel
Umweltgutachterin
DE-V-0183

TÜV NORD CERT UMWELTGUTACHTER GmbH
Registration number: DE-V-0263

Am TÜV 1
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Andreas Niesig

Andreas Niesig
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Dr Karl Neuhäuser
Head of Central Quality Management
Eckes-Granini Deutschland GmbH

Lutz Hofmann

Lutz Hofmann
Head of Safety, Environmental Protection
and Facility Management
Eckes-Granini Deutschland GmbH



EMAS
GEPRÜFTES
UMWELTMANAGEMENT
REG.-NR. DE-152-00017

Environmental protection

A win-win situation ...

At Eckes-Granini Deutschland GmbH, we know environmental commitment pays off!

————— This is clearly reflected by the facts and figures presented in this environmental report. Numerous improvements in our production processes and reductions in our consumption of raw and auxiliary materials show that our environmental measures are on the right track and environmental protection is important not only from an ecological standpoint, but also economically.

As part of our commitment to continuous improvement, we will remain dedicated to the eco-management and auditing system adopted by our company in accordance with EMAS Annex II, III and IV.

Publication date of our next environmental report

The next consolidated and printed version of our environmental report for Eckes-Granini Deutschland GmbH will be made available in May 2023.

Licence number of environmental verifier:

DE-V-0193

Dr Ortrun Janson-Mundel

TÜV NORD CERT UMWELTGUTACHTER GmbH

Environmental Verifier

Am TÜV 1

30519 Hannover

The environmental verifier, Dr Ortrun Janson-Mundel (standing in the middle), presented the EMAS validation certificate to the Managing Director of Eckes-Granini Deutschland GmbH, Dr Kay Fischer (standing on her left), the Head of Safety, Environmental Protection and Facility Management, Lutz Hofmann (standing on her right), and other members of staff.

Person from left to right: 1. Volker Spohr (Site Manager, Environmental Management Officer, Bröl); 2. Hermann Naumann (Site Manager, Environmental Management Officer, Bad Fallingbostel); 3. Andreas Niesig (Supply Chain Manager at Eckes-Granini Deutschland GmbH); 4. Dr Kay Fischer (Managing Director of Eckes-Granini Deutschland GmbH); 5. Dr Ortrun Janson-Mundel (TÜV NORD CERT-Environmental Verifier); 6. Lutz Hofmann (Head of Safety, Environmental Protection and Facility Management, Environmental Management Officer at Eckes-Granini Deutschland GmbH); 7. Christina Denbrock (Eckes-Granini Deutschland GmbH, External Communication Manager, Germany); 8. Dr Karl Neuhäuser (Head of Central Quality Management).



Environmental definitions



A term for everything...

"Corporate Responsibility" _____

is a term used to refer holistically to the responsibilities assumed by a company

"Corporate Social Responsibility" (CSR) _____

often referred to as "sustainable corporate governance", is a company's voluntary contribution to sustainable development. CSR promotes responsible entrepreneurial activities in a company's field of business (market) with respect to ecological concerns (environment), relationships with staff (workplace) and interaction with other relevant stakeholders and interest groups.

"EMAS" _____

is the abbreviation for Regulation (EC) No. 1221/2009 of the European Parliament and Council, of 25 November 2009, on the voluntary participation by organisations in a Community eco-management and audit scheme.

"Continuous improvement of environmental performance" _____

The "continuous improvement of environmental performance" is a constant process by which a company improves the results measured by its eco-management and auditing system. The improvements relate to the management measures taken by the company for its main environmental aspects based on its environmental policy, targets and objectives. The improvements do not have to happen at the same time in all fields of activity.

"Sustainability" _____

Eckes-Granini believes "sustainability" is about taking responsibility to ensure the preservation of ecological, social and economic systems for future generations.

"Environmental factor" _____

An "environmental factor" is an aspect of a company's activities, products or services that might have an impact on the environment.

"Environmental impact" _____

An "environmental impact" is any positive or negative change to the environment that fully or partially results from a company's activities, products or services.

"Environmental audit" _____

An "environmental audit" is a management tool that offers a systematic, documented, regular and objective assessment of a company's environmental performance, management system and environmental protection methods. It makes it easier for a company's managers to review practices that might have an impact on the environment.

"Environmental target" _____

An "environmental target" is a detailed performance requirement that may be quantified where possible; it may apply to a whole company or individual divisions. The performance requirement must be derived from the company's environmental objectives; it must be set and met.



ENVIRONMENTAL DEFINITIONS

“Environmental verifier”

An “environmental verifier” is a person or organisation authorised to conduct audits according to the conditions and procedures stipulated in EMAS Chapter 5; the environmental verifier must not have any ties to the audited company.

“Environmental performance”

“Environmental performance” comprises the results achieved by a company’s management with respect to the defined environmental factors: the prevention of significant pollution through the use of processes, practices, materials or products that help to prevent, reduce or control pollution.

This also includes recycling, waste treatment, process changes, control mechanisms, the efficient utilisation of resources and the use of alternative materials.

“Eco-management and auditing system”

An “eco-management and auditing system” is the aspect of a company’s overall management system that comprises its organisational structure, planning activities, responsibilities, practices, procedures, processes and resources needed to establish, enforce, implement, review and maintain its environmental policy.

“Environmental policy”

“Environmental policy” comprises an organisation’s environmental aims and principles, including compliance with all applicable environmental regulations and its commitment to the continuous improvement of its environmental performance. An environmental policy provides the framework for a company to establish and review its environmental targets and objectives.

“Environmental programme”

An “environmental programme” comprises the measures taken or planned by a company and the deadlines set to achieve its environmental targets and objectives (responsibilities and resources).

“Environmental review”

An “environmental review” is a preliminary yet comprehensive examination of environmental issues, impacts and performance in relation to an organisation’s activities.

“Environmental objective”

An “environmental objective” is an overall goal identified by a company in line with its environmental policy; it must be quantifiable where possible.



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